

Five Years After Child Sexual Abuse

Heather Yvette Swanston

Faculty of Medicine, The University of Sydney

December 1999

*This thesis is submitted in full satisfaction of the requirements for the degree of
Doctor of Philosophy*

Acknowledgments

This research was funded from 1994-1996 and 1997-1998 by grants from the National Health and Medical Research Council of Australia, and from 1996-1997 by a grant from the Australian Rotary Health Research Fund.

The NSW Department of Community Services, the NSW Department of Juvenile Justice, the NSW Department of Local Courts Administration and the NSW Victims Compensation Tribunal kindly provided access to data.

Sincere thanks to the following people who have given helpful advice, assistance, inspiration, support and encouragement with the research and writing:

Young people and their parents who gave of their time and energy

My supervisor, Professor R. Kim Oates

Child Protection Units of the Royal Alexandra Hospital for Children and
The Prince Of Wales Hospital

My co-supervisor, Associate Professor Susan Hayes

and

Dr Louise Baur
Dr John Christodoulou
Mr Michael Dickinson
Dr Marie Kelliher
Mr Lawrence Lam
Ms Mee Mee Lee
Dr Debby Lynch
Dr Karen McKay
Dr Robyn Mills
Dr Ken Nunn
Dr Brian O'Toole
Professor Patrick Parkinson
Ms Sandie Shrimpton
Ms Jenny Tebbutt

and especially my family.

The experience of conducting this research was both emotionally demanding and inspiring. The loss of young people's lives by suicide and AIDS was a tragedy. The struggles of the mothers in disadvantaged families to seek protective action for their children, and the determination of some of the young people to succeed in education and careers in the absence of any support from their families, was an inspiration. Child sexual abuse is a common problem, and early intervention with the child and the family is essential to enhance long-term psychosocial adjustment.

Heather Swanston

Statement of Sources

The work presented in this thesis is, to the best of my knowledge and belief, original. The material contained in this thesis has not been submitted either in whole or in part for any other degree at the University of Sydney or at any other University.

This thesis describes a five year follow-up of sexually abused young people. Intake data were collected by Dr Debby Lynch, Anne Stern and Angela Plunkett. At five year follow-up, I contributed to selecting the measures for the study and designing the questionnaires. I also conducted much of the tracing and contacting of the subjects. I assessed and interviewed most of the young people and my colleague, Jennifer Tebbutt, generally collected data from their parents. Jennifer Tebbutt and I both scored and double-scored the assessments. All analyses contained in this thesis were conducted by myself, with advice from Dr Brian O'Toole.

Heather Swanston

The following publications have directly resulted from this work:

Published papers

Swanston, HY, Nunn, KP, Tebbutt, JS, Oates, RK and O'Toole, BI (1998). Hoping and Coping in Sexually Abused Young People. *European Child and Adolescent Psychiatry*, 8, 134-142.

Swanston, HY, Tebbutt, JS, O'Toole, BI and Oates, RK (1997). Sexually Abused Children five years After Presentation: a Case-Control Study. *Paediatrics*, 100, 600-608.

Tebbutt, JS, Swanston, HY, Oates, RK and O'Toole, BI (1997). Five Years After Child Sexual Abuse: Persisting Dysfunction and Problems of Prediction. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 330-339.

Oates, RK, Tebbutt, JS, Swanston, HY, Lynch, DL and O'Toole, BI (1998). Prior childhood sexual abuse in mothers of sexually abused children. *Child Abuse and Neglect*, 22, 1113-1118.

Published abstracts

Swanston HY, Tebbutt JS, O'Toole, BI and Oates, RK (1997). Sexually Abused Children five years After Presentation: a Case-Control Study. Abstracted in The Australian College of Paediatrics and the Paediatrics Research Society of Australia (1996). Abstracts presented at the 41st Annual Scientific Meeting, May 1996 *Journal of Paediatrics and Child Health*, 32, A7.0

Swanston, HY, Tebbutt, JS, O'Toole, BI and Oates, RK (1997). Children who were abused were more disturbed than their peers after five years. Abstracted in *Evidence-based Nursing*, 1998, 1, 84.

Papers presented

Swanston HY, Tebbutt JS, O'Toole, BI and Oates, RK. (1997). Sexually Abused Children five years After Presentation: a Case-Control Study. Paper presented at the *Royal Australian College of Paediatrics* in Brisbane on May 29, 1996, and to the *Royal Australian and New Zealand College of Psychiatrists* in Melbourne on September 20, 1997.

Poster Presented

Swanston ,HY, Shrimpton, S, Parkinson, P, Oates, RK and O'Toole, BI. (1997). Child Sexual Abuse and the System: Care, Compensation and Crime. Poster presented at the *International Society for Prevention of Child Abuse and Neglect's 12th International Congress on Child Abuse and Neglect* in Auckland, New Zealand, September 6-9, 1998.

Abstract

Introduction

Child sexual abuse is a common problem. Psychological and behavioural problems in children and adults who have experienced child sexual abuse have been associated with the abuse. Little research has been conducted which has been long-term, prospective, involved substantiated sexual abuse, included a control group, took into account mediating factors, utilised multiple data sources, relied on standardised measures and had a high follow-up rate.

Aim

The aims of this study were (1) to compare a cohort of sexually abused young people with a group of their nonabused peers and (2) to establish predictors of psychological and behavioural outcome.

Method

This study was a five year follow-up. It was prospective, involved a sample of children with substantiated sexual abuse, included a control group, took into account mediating factors, utilised multiple data sources, relied on standardised measures and had a high follow-up rate.

Eighty-four sexually abused young people were followed up five years after presenting to Children's Hospitals' Child Protection Units for sexual abuse and were compared to a group of 84 nonabused young people of similar age and sex. The two groups were compared on the basis of depression, self-esteem, anxiety, hopefulness, despair, attributional style, behaviour, criminal activity, alcohol and other drug use, dieting, bingeing, vomiting, running away, suicide attempts and ideation and self-injury. Further notifications of young people for child abuse/neglect, young people's juvenile convictions and compensation they received for the index sexual abuse event were also examined. Significant predictors of outcome were established.

Main findings

Follow-up rates were 81% (n = 68) for abused young people and 89% (n = 75) for those nonabused. Five years after presenting for the sexual abuse, the sexually abused young people were performing more poorly than their nonabused peers on various measures of psychological state and behaviour. Although the abused children had experienced more negative life events ($p < .001$), were from lower socio-economic groups ($p < .0001$), had more changes in parent figures ($p < .001$) and had mothers who were more psychologically distressed ($p = .03$), multiple regression analysis showed that after allowing for these and other demographic and family factors, there were still significant differences between the groups after the five years. The abused children displayed more disturbed behavior ($p = .002$), had lower self-esteem ($p < .001$), were more depressed or unhappy ($p < .001$) and were more anxious ($p = .03$) than controls. Sexually abused children had significantly higher levels of bingeing ($p = .02$), self-injury ($p = .009$) and suicide attempts ($p = .03$).

Significant predictors of psychological and behavioural outcome were significantly related to family and parent functioning variables. Abuse status was not a significant predictor when offered to each of the predictive models. Significant predictors of outcome included the following *intake variables*: family functioning, mother's mental health, whether parents were employed or not, behaviour scores, prior notifications for neglect, history of parental discord and whether there were caregiver changes or not prior to intake. The classification of the index sexual abuse event as indecent assault and whether there were notifications for sexual abuse prior to the index event also significantly predicted outcome. *Five year follow-up variables* which were significant predictors of outcome were the young person's age, number of negative life events, attributional style, self-esteem, depression, number of parent changes, anxiety, despair, whether there were notifications for abuse/neglect after intake and having a parent with a history of drug/alcohol problems.

Conclusions

Difficulties associated with child sexual abuse can continue for some years after the abuse event. Child sexual abuse needs to be considered as a possible antecedent of behaviour and psychological difficulties in young people. Treatment and monitoring should continue for some years after the abuse. Treatment may need to be directed more towards young people's psychological states rather than focusing specifically on the sexual abuse. Family and parent functioning may need to be addressed early in order to prevent some of the behavioural and psychological difficulties associated with the long-term outcome of child sexual abuse.

Keywords

child sexual assault, depression, self-esteem, hope, despair, attributional style, anxiety, behaviour, crime, running away, suicide, self-injury, eating problems, re-victimisation, compensation, life events

Definition of Terms

Cases	Sexually abused young people
Child sexual abuse	For the purposes of this study, <i>child sexual abuse</i> is defined as any form of non-consensual physical contact of a sexual nature between a child under the age of 16 years and an abuser of any age.
Controls	Nonabused, or comparison group
Incidence	<i>Incidence</i> refers to the number of new cases of a given condition in a single year divided by the number of people at risk (Bland, 1987).
Normal population	The normal population refers to the wider or general population. It is presumed that this population will contain some people who will not have reported child sexual abuse.
Potential predictor	Refers to the possibility that a given explanatory (independent) variable will be statistically significantly related to a given outcome (dependent) variable.
Prevalence	<i>Prevalence</i> is defined as the proportion of people with a given condition who have it at a single point in time (Bland, 1987).
Study Intake	Intake, or enrolment, in this study took place during 1988 to 1990 for the abused group, and during 1989 to 1991 for the nonabused group.
Young people	For brevity, the term <i>young people</i> has been used throughout this thesis to refer collectively to children, adolescents and/or young adults.

Abbreviations

95% CI	95% Confidence Interval
ANOVA	Analysis of Variance
BDI	Beck Depression Inventory
CBCL	Child Behaviour Checklist
CDI	Children's Depression Inventory
DOCS	Department of Community Services
EDI	Eating Disorders Inventory

FAD	Family Assessment Device
GHQ	General Health Questionnaire
HOPES	Hunter Opinions and Personal Expectations Scale
MH	Mantel-Haenszel test for trend
NSW	New South Wales, Australia
OR	Odds Ratio
PBI	Parental Bonding Instrument
RAHC	Royal Alexandra Hospital for Children
RCMAS	Revised Children's Manifest Anxiety Scale
SES	Socio-economic status
SPSS	Statistical Package for the Social Sciences
TRF	Teacher's Report Form
VCT	Victims Compensation Tribunal
YSR	Youth Self Report

Table of Contents

ACKNOWLEDGMENTS

STATEMENT OF SOURCES .

PUBLISHED PAPERS .
PUBLISHED ABSTRACTS .
PAPERS PRESENTED .

ABSTRACT

Keywords

ABBREVIATIONS:

LIST OF TABLES
LIST OF FIGURES
LIST OF APPENDICES .

CHAPTER 1 - INTRODUCTION 11

CHILD SEXUAL ABUSE	12
1.1 Incidence	12
1.2 Prevalence	12
1.3 Sample Selection	13
1.4 Data Collection	14
1.5 Definitions of Child Sexual Abuse	14
1.6 Study Designs in Child Sexual Abuse	18
(a) Retrospective vs Prospective Studies	18
(b) Length of follow-up	18
(c) Control Groups	21
(d) Mediating Factors	21
(i) Family Functioning	21
(ii) Mothers' psychological distress	22
(iii) Socio-Economic Status	22
(iv) Age and Sex	22
(v) Negative Life Events	22
1.7 Background and rationale for the study	23
1.8 The project	23
1.9 Aims	24
1.10 Hypotheses	24
1.11 Summary	26

CHAPTER 2 - LITERATURE REVIEW

OUTCOMES OF CHILD SEXUAL ABUSE.....	
<i>Restrictions on literature review</i>	
<i>Depression.....</i>	<i>Error! Bookmark not defined.</i>
<i>Self-esteem.....</i>	<i>Error! Bookmark not defined.</i>
<i>Anxiety.....</i>	<i>Error! Bookmark not defined.</i>
<i>Behaviour</i>	<i>Error! Bookmark not defined.</i>
<i>Criminal Behaviour.....</i>	<i>Error! Bookmark not defined.</i>
Department of Juvenile Justice	<i>Error! Bookmark not defined.</i>
<i>Drug Use</i>	<i>Error! Bookmark not defined.</i>
<i>Eating problems.....</i>	<i>Error! Bookmark not defined.</i>
<i>Hope and Despair.....</i>	<i>Error! Bookmark not defined.</i>
<i>Attributional Style.....</i>	<i>Error! Bookmark not defined.</i>
MEDIATING FACTORS.....	ERROR! BOOKMARK NOT DEFINED.
<i>Court.....</i>	<i>Error! Bookmark not defined.</i>
<i>Treatment.....</i>	<i>Error! Bookmark not defined.</i>
<i>Revictimisation</i>	<i>Error! Bookmark not defined.</i>
Rates of Revictimisation.....	<i>Error! Bookmark not defined.</i>
Predictors of Revictimisation.....	<i>Error! Bookmark not defined.</i>
Grooming.....	<i>Error! Bookmark not defined.</i>

Department of Community Services.....	Error! Bookmark not defined.
<i>Victims Compensation</i>	<i>Error! Bookmark not defined.</i>
Applications for Compensation	Error! Bookmark not defined.
Problems with the Victims Compensation Act (1987).....	Error! Bookmark not defined.
Arguments for Change.....	Error! Bookmark not defined.
Alternatives to the Present Scheme.....	Error! Bookmark not defined.
Research To Date.....	Error! Bookmark not defined.

CHAPTER 3 - METHODS

ERROR! BOOKMARK NOT DEFINED.

<i>3.1 Children and Their Parents</i>	<i>Error! Bookmark not defined.</i>
3.1.1 Cases	Error! Bookmark not defined.
3.1.2 Controls	Error! Bookmark not defined.
3.1.3 Procedure	Error! Bookmark not defined.
3.1.4 Measures	Error! Bookmark not defined.
3.1.4.1 Young people	Error! Bookmark not defined.
(i) Family relationships	Error! Bookmark not defined.
(ii) Life Events	Error! Bookmark not defined.
(iii) Depression or unhappiness	Error! Bookmark not defined.
(iv) Self-esteem	Error! Bookmark not defined.
(v) Z-Scores	Error! Bookmark not defined.
(vi) Anxiety	Error! Bookmark not defined.
(vii) Depression, Self-esteem and Anxiety - Clinical Cut-points	Error! Bookmark not defined.
(viii) Behaviour	Error! Bookmark not defined.
(ix) Behaviour - Subscales and Cut-points	Error! Bookmark not defined.
(x) Other Aspects of Behaviour	Error! Bookmark not defined.
(xi) Hope and Despair	Error! Bookmark not defined.
(xii) Attributional Style	Error! Bookmark not defined.
3.1.4.2 Parents	Error! Bookmark not defined.
(i) Socio-economic Status	Error! Bookmark not defined.
(ii) Family Functioning	Error! Bookmark not defined.
(iii) Mother's mental health	Error! Bookmark not defined.
(iv) The Future	Error! Bookmark not defined.
<i>3.2 Young People and the System</i>	<i>Error! Bookmark not defined.</i>
3.2.1 Procedure	Error! Bookmark not defined.
3.2.2 Department of Juvenile Justice	Error! Bookmark not defined.
3.2.3 Department of Community Services (DOCS)	Error! Bookmark not defined.
3.2.4 Victims Compensation Tribunal (VCT)	Error! Bookmark not defined.
<i>3.3 Analysis</i>	<i>Error! Bookmark not defined.</i>
3.3.1 Cases vs Controls	Error! Bookmark not defined.
3.3.2 Predictors of outcome	Error! Bookmark not defined.
3.3.3 Legal Categories	Error! Bookmark not defined.
<i>3.4 Summary</i>	<i>Error! Bookmark not defined.</i>

CHAPTER 4 - RESULTS I

ERROR! BOOKMARK NOT DEFINED.

CASE - CONTROL COMPARISONS

ERROR! BOOKMARK NOT DEFINED.

<i>4.1 Participants</i>	<i>Error! Bookmark not defined.</i>
<i>4.2 Decliners</i>	<i>Error! Bookmark not defined.</i>
<i>4.3 Follow-up location and timing</i>	<i>Error! Bookmark not defined.</i>
<i>4.4 Demographics (Table 4.4)</i>	<i>Error! Bookmark not defined.</i>
<i>4.5 Family functioning</i>	<i>Error! Bookmark not defined.</i>
<i>4.6 Parental Bonding Instrument</i>	<i>Error! Bookmark not defined.</i>
<i>4.7 Parental Mental Health</i>	<i>Error! Bookmark not defined.</i>
<i>4.8 Life Events</i>	<i>Error! Bookmark not defined.</i>
<i>4.9 Mediating Factors</i>	<i>Error! Bookmark not defined.</i>
4.10 OUTCOME VARIABLES	ERROR! BOOKMARK NOT DEFINED.
<i>4.10.1 Depression</i>	<i>Error! Bookmark not defined.</i>
<i>4.10.2 Self-esteem</i>	<i>Error! Bookmark not defined.</i>
<i>4.10.3 Anxiety</i>	<i>Error! Bookmark not defined.</i>
<i>4.10.4 Clinical Ranges</i>	<i>Error! Bookmark not defined.</i>
<i>4.10.5 Behaviour</i>	<i>Error! Bookmark not defined.</i>
4.10.5.1 Child Behaviour Checklist (CBCL)	Error! Bookmark not defined.
4.10.5.2 Youth Self-Report (YSR)	Error! Bookmark not defined.
4.15.3 Teacher's Report Form (TRF)	Error! Bookmark not defined.

4.10.6	Criminal behaviour	Error! Bookmark not defined.
4.10.6.1	Self-report	Error! Bookmark not defined.
4.10.6.2	Official records	Error! Bookmark not defined.
4.10.7	Cigarette and illicit drug Use	Error! Bookmark not defined.
4.10.8	Alcohol	Error! Bookmark not defined.
4.10.9	Parental drug use	Error! Bookmark not defined.
4.10.10	Eating problems	Error! Bookmark not defined.
4.10.11	Running away, suicide attempts and self-injury	Error! Bookmark not defined.
4.10.12	Hopefulness and Despair	Error! Bookmark not defined.
4.10.13	Attributional style	Error! Bookmark not defined.
4.11	Young People and the System	Error! Bookmark not defined.
4.11.1	Contact with the Department of Community Services	Error! Bookmark not defined.
4.11.2	Victims Compensation Claims	Error! Bookmark not defined.

CHAPTER 5 - RESULTS II

ERROR! BOOKMARK NOT DEFINED.

PREDICTIVE MODELS FOR OUTCOME

ERROR! BOOKMARK NOT DEFINED.

5.1	PREDICTORS OF OUTCOME	ERROR! BOOKMARK NOT DEFINED.
5.2	<i>Depression</i>	<i>Error! Bookmark not defined.</i>
5.2.1	Demographics	Error! Bookmark not defined.
5.2.2	Sexual abuse variables	Error! Bookmark not defined.
5.2.3	Intake variables	Error! Bookmark not defined.
5.2.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.2.5	Predictive model	Error! Bookmark not defined.
5.3	<i>Self-esteem</i>	<i>Error! Bookmark not defined.</i>
5.3.1	Demographics	Error! Bookmark not defined.
5.3.2	Sexual abuse variables	Error! Bookmark not defined.
5.3.3	Intake variables	Error! Bookmark not defined.
5.3.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.3.5	Predictive model	Error! Bookmark not defined.
5.4	<i>Anxiety</i>	<i>Error! Bookmark not defined.</i>
5.4.1	Demographics	Error! Bookmark not defined.
5.4.2	Sexual abuse variables	Error! Bookmark not defined.
5.4.3	Intake variables	Error! Bookmark not defined.
5.4.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.4.5	Predictive model	Error! Bookmark not defined.
5.5	<i>Behaviour</i>	<i>Error! Bookmark not defined.</i>
5.5.1	Demographics	Error! Bookmark not defined.
5.5.2	Sexual abuse variables	Error! Bookmark not defined.
5.5.3	Intake variables	Error! Bookmark not defined.
5.5.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.5.5	Predictive model	Error! Bookmark not defined.
5.6	<i>Criminal behaviour</i>	<i>Error! Bookmark not defined.</i>
5.6.1	Demographics	Error! Bookmark not defined.
5.6.2	Sexual abuse variables	Error! Bookmark not defined.
5.6.3	Intake variables	Error! Bookmark not defined.
5.6.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.9.1.1	Demographic variables	Error! Bookmark not defined.
5.9.1.2	Sexual abuse variables	Error! Bookmark not defined.
5.9.1.3	Intake variables	Error! Bookmark not defined.
5.9.1.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.9.1.5	Predictive model	Error! Bookmark not defined.
5.9.2	<i>Self-injury since intake to the study</i>	<i>Error! Bookmark not defined.</i>
5.9.2.1	Demographic variables	Error! Bookmark not defined.
5.9.2.2	Sexual abuse variables	Error! Bookmark not defined.
5.9.2.3	Intake variables	Error! Bookmark not defined.
5.9.2.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.9.2.5	Predictive models	Error! Bookmark not defined.
5.10	<i>Suicidal ideation and attempts</i>	<i>Error! Bookmark not defined.</i>
5.10.1.1	Demographics	Error! Bookmark not defined.
5.10.1.2	Sexual abuse variables	Error! Bookmark not defined.
5.10.1.3	Intake variables	Error! Bookmark not defined.
5.10.1.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.10.1.5	Predictive model	Error! Bookmark not defined.
5.11	<i>Suicidal attempts in the last 12 months</i>	<i>Error! Bookmark not defined.</i>

5.11.1	Demographic Variables	Error! Bookmark not defined.
5.11.2	Sexual abuse variables	Error! Bookmark not defined.
5.11.3	Intake variables	Error! Bookmark not defined.
5.11.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.11.5	Predictive Model	Error! Bookmark not defined.
5.12	<i>Suicide attempts since intake to the study</i>	<i>Error! Bookmark not defined.</i>
5.12.1	Demographics	Error! Bookmark not defined.
5.12.2	Sexual abuse variables	Error! Bookmark not defined.
5.12.3	Intake variables	Error! Bookmark not defined.
5.12.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.12.5	Predictive Model	Error! Bookmark not defined.
5.13	<i>Bingeing</i>	<i>Error! Bookmark not defined.</i>
5.13.1	Demographics	Error! Bookmark not defined.
5.13.2	Sexual abuse variables	Error! Bookmark not defined.
5.13.3	Intake variables	Error! Bookmark not defined.
5.13.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.13.5	Predictive model	Error! Bookmark not defined.
5.14	<i>Self-induced Vomiting</i>	<i>Error! Bookmark not defined.</i>
5.14.1	Demographics	Error! Bookmark not defined.
5.14.2	Sexual abuse variables	Error! Bookmark not defined.
5.14.3	Intake variables	Error! Bookmark not defined.
5.14.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.14.5	Predictive model	Error! Bookmark not defined.
5.15	<i>Number of Subsequent Notifications for Abuse/Neglect</i>	<i>Error! Bookmark not defined.</i>
5.15.1	Demographics	Error! Bookmark not defined.
5.15.2	Sexual abuse variables	Error! Bookmark not defined.
5.15.3	Intake variables	Error! Bookmark not defined.
5.15.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.15.5	Predictive model	Error! Bookmark not defined.
5.16	<i>Predictors of Subsequent Sexual Abuse</i>	<i>Error! Bookmark not defined.</i>
5.17	<i>Victim's Compensation Tribunal Awards</i>	<i>Error! Bookmark not defined.</i>
5.17.1	Demographics	Error! Bookmark not defined.
5.17.2	Sexual abuse variables	Error! Bookmark not defined.
5.17.3	Intake variables	Error! Bookmark not defined.
5.17.4	5 Year Follow-Up Variables	Error! Bookmark not defined.
5.17.5	Predictive model	Error! Bookmark not defined.
CHAPTER 6 - DISCUSSION		ERROR! BOOKMARK NOT DEFINED.
6.1	HYPOTHESES	ERROR! BOOKMARK NOT DEFINED.
REFERENCES		ERROR! BOOKMARK NOT DEFINED.
APPENDICES		ERROR! BOOKMARK NOT DEFINED.

List of Appendices

Appendix 1:	Project Developed Health Questionnaire	173
Appendix 2:	Project Developed Criminal Activity Questionnaire	177
Appendix 3:	Young person semi-structured interview	180
Appendix 4:	Parent semi-structured interview.....	188
Appendix 5:	Predictors: Univariate Analyses	199

List of Figures

Figure 4.1:	The process of claiming Victims' Compensation for the 84 abused young people	113
-------------	--	-----

Chapter 1

Introduction

1. Child Sexual Abuse

The word *abuse* conjures up many reactions in parents and victims such as fear, anger, a desire for retaliation and righteous indignation. When the abuse is *sexual*, it can be associated with embarrassment, shame and silence on the part of victims, parents and society. When the victim of sexual abuse is a *child*, adults' responses to disclosure can range from silence to outrage. A combination of all three in the form of *child sexual abuse* produces a melange of emotions, some productive, some unproductive.

The aim of any research in the field of child sexual abuse should ultimately be to inform policy and practice so that the effects and occurrence of child sexual abuse are able to be more effectively reduced. Child sexual abuse is common, although incidence and prevalence figures can vary according to the definition used and the design of each study.

1.1 Incidence

In the Australian state of New South Wales (NSW) during the three months from 1 April to 30 June 1997, the Department of Community Services received 7,776 notifications of abuse and neglect in children aged 0—17 years, and substantiated 1,791 of these cases (Australian Institute of Health and Welfare, 1998). While an incidence rate was not available for NSW for the period 1996-1997, incidence rates in NSW ranged from 1.0 per 1,000 for the period 1994-1995 (Angus and Hall, 1996), to 8.7 per 1,000 for 1993-1994 (Angus and Woodward, 1995) and the incidence rate was 8.1 per 1,000 children aged 0—16 years in 1995-1996 (Broadbent and Bentley, 1997). In 1997, sexual abuse accounted for 31% of the cases in NSW and 77% of these victims were female (Australian Institute of Health and Welfare, 1998).

1.2 Prevalence

Definitions of sexual abuse are crucial to discussions of prevalence. Variation in prevalence rates is commonly due to the use of differing methods for selecting samples and collecting data as well as the use of inconsistent definitions of child sexual abuse (Table 1.1). A survey of international prevalence rates of having a

history of child sexual abuse indicated that these rates can vary from 7% to 36% in women and 3% to 29% for men (Finkelhor, 1994a). Most of the studies surveyed by Finkelhor (1994a) which were based on more restrictive definitions, such as those which limited victims' ages to a maximum of five years as opposed to 18 years in other studies, found lower prevalence rates (7% to 33% of women and 4 to 8% of men). If the mean is taken of all of the prevalence rates cited by Finkelhor, they indicate that approximately *one in four girls* and *one in ten boys* have experienced sexual abuse.

It is apparent that the incidence rates of child sexual abuse are much lower than expected rates which are based on prevalence. This discrepancy may be attributable to the under reporting of child sexual abuse owing to the young age of the child, the fact that child sexual abuse is illegal, the shame and secrecy which surround child sexual abuse and the fact that the child may be a dependent of the abuser (Finkelhor, 1994b). For example, Fleming found that only 10% of her sample of sexually abused women had reported the abuse (Fleming, 1997). If incidence is based on confirmed cases, it may be lower than expected partly because of the notorious difficulties in proving sexual abuse in children since there is often no physical evidence (Oates, 1996).

1.3 Sample Selection

All of the populations surveyed by Finkelhor (1994a) were from non-clinical populations. Since many of the long-term effects of child sexual abuse can lead to young people seeking help from clinicians, as will be discussed later, it is sensible to draw subjects from outside the clinical population. Some examples of samples are given in Table 1.1. To minimise sample bias, Finkelhor (1986) suggested that researchers should link in with agencies who are responsible for substantiating abuse. He also suggested that cases be accessed for research as soon as possible after disclosure to avoid losing them and to capture data which are relatively unaffected by contact with other agencies. This would seem to be a sensible approach since treatment, criminal prosecution of offenders and victims compensation are likely to affect children's outcomes.

Table 1.1: International Prevalence Rates

Authors	Prevalence (%)	Prevalence (%)	Sample	Method of data collection	Multiple questions on experience of child sexual abuse	Age restrictions on abuse experience	Definition restricted to physical contact with abuser
	Females	Males					
Badgley et al. (1984)	34 *	19 *	2008 adults from 210 communities across Canada	questionnaire	yes	child under 18 years	no
Bagley and Ramsay (1986)	22	--	stratified random sample of 377 women in a western city in Canada	interview	no	child under 16 years	yes
Baker and Duncan (1985)	14	9	national sample of 1553 people aged 15 years and over in Britain	interview	no	child under 16 years	no
Finkelhor (1984)	15	6	521 parents living with child 6-14 years in Boston	questionnaire	yes	child under 16 years; 5 years difference between child and abuser	no
Fleming (1997)	20	--	6000 women randomly selected from federal electoral rolls	questionnaire	yes	child under 16 years	yes
Goldman and Goldman (1988)	28	9	991 post-secondary students	questionnaire	yes	child under 16 years	no **

Authors	Prevalence (%)		Sample	Method of data collection	Multiple questions on experience of child sexual abuse	Age restrictions on abuse experience	Definition restricted to physical contact with abuser
	Females	Males					
Goldman and Padayachi (1997)	39	13	427 students at University of Queensland	questionnaire	yes	child under 17 years	yes
Mullen et al. (1988)	10	--	2000 women in 5 contiguous parliamentary constituencies in New Zealand	interview	not known	child under 13 years	yes
Robin et al. (1997)	49	14	582 Southwestern American Indian tribal members	semi-structured psychiatric interview	no	child under 16 years	yes
Russell (1983)	38	--	930 women residents in San Francisco	interview	yes	child under 18 years; 5 years difference between child and intra-familial abuser	yes
Siegal, et al. (1987)	7	4	stratified sample by block and household 3127 people in 2 Los Angeles mental health catchment areas	interview	no	child under 16 years	yes
Wyatt (1985)	62	--	246 women contacted by random digit dialling in Los Angeles	interview	yes	child under 18 years	no

* estimated from data reported ** both unwanted and wanted sexual contact were included

1.4 Methods of Data Collection

Prevalence rates also appear to vary with the style of questioning used (refer to Table 1.1 for examples). Peters, Wyatt and Finkelhor (1986) suggested that the optimal way to obtain information about experience of sexual abuse was to ask several questions rather than one, and to define sexual abuse clearly. For example, Baker and Duncan (1985) asked only one question on child sexual abuse and found a prevalence rate of 7%, while Finkelhor (1985) asked multiple questions and obtained a prevalence rate of 12%.

Peters, Wyatt and Finkelhor (1986) also stated that if interviewers are well-trained and therefore more likely to elicit honest answers, face-to-face interviews can produce higher prevalence rates than self-reported questionnaires. High response rates are also important in ensuring that information collected is reflective of the general population.

1.5 Definitions of Child Sexual Abuse

Definitions of abuse vary across studies, with some research teams defining it more broadly than others. Definitions focus on the age of the child, discrepancy in age between the child and the abuser, whether physical contact was involved and whether the contact was wanted or unwanted. For example, using a broad definition of sexual abuse, Goldman and Goldman (1988) found a prevalence rate of 28% for girls and 9% for boys in a survey of Australian students. Goldman and Goldman asked about sexual activity prior to the age of 17 years and included both physical contact and non-contact forms of abuse, and wanted and unwanted sexual activity. A more narrow definition was used by Fleming (1997) in a large retrospective study of 710 women contacted through federal electoral rolls and this produced a prevalence rate of 20%. Child sexual abuse in the Fleming (1997) study was defined as any form of sexual contact, regardless of consent, experienced while 16 years or younger with a person at least five years older.

Peters, Wyatt and Finkelhor (1986) established a definition of child sexual abuse to enable research findings to be comparable. Within this framework, cases are restricted to those involving physical contact between an abuser and a child under 16 years. Finkelhor (1986) also stressed that research should focus on narrow age ranges as children's ages may affect their responses to abuse. This way, more specific outcomes can be charted for certain age ranges.

Peters, Wyatt and Finkelhor (1986) noted two aspects which were important to bear in mind when defining sexual abuse for research purposes. These were the child's relationship with the perpetrator and the type of abusive act perpetrated upon the child. Peters et al. suggested that in order to create a definition which is inclusive of different types of abusers, it is important to define the abuse as unwanted sexual contact experienced by a child. This way, caregivers, other adults, other children and adolescents are included as possible perpetrators, and consensual sex between peers is excluded.

Finkelhor (1994a) stated that definitions must not be too loose, nor should they be too limiting - it is important to ensure that definitions chosen for research enable results to be comparable. *For the purposes of this study, child sexual abuse is defined as any form of non-consensual physical contact of a sexual nature between a child under the age of 16 years and an abuser of any age.*

Study design can also affect the significance of any research findings, and any resulting prevalence rates (Table 1.1). Methods of sample selection, data collection and the definition of child sexual abuse used are thus all important in any research in this area.

1.6 Study Designs in Child Sexual Abuse

Studies of child sexual abuse vary in design, which can affect the significance of the outcome. Research can generally be *retrospective or prospective*, and *long- or short-term*. When assessing the impact of sexual abuse over time, other aspects of children's behaviour and development which are not necessarily attributable to the abuse have to be considered. This problem can be addressed by having a non-abused *comparison group*. Long-term studies also need to take into account factors that may *mediate* the effects of child sexual abuse over time - statistical models can be used to adjust for factors other than the variable of interest which affect outcome.

1.6.1 Retrospective vs Prospective Studies

Much of the research on long-term effects of child abuse has been based on retrospective studies of adult populations (for example, Briere and Runtz, 1988; Collings, 1995; Ussher and Dewberry, 1995). Retrospective work can have the disadvantage of relying on memories of past events rather than upon official documentation of abuse and of not being able to take into

account mediating factors over time since the abuse. There have been several prospective studies of sexually abused children. These vary greatly in terms of duration of follow-up, sample size, whether a control group was used and whether mediating factors were taken into account (Table 1.2). There is also a large range in follow-up success rates, from under 20% to 75% (Table 1.2).

1.6.2 Length of follow-up

Most prospective studies of behavioural and emotional outcomes in sexually abused children have not continued longer than 18 months after presentation and diagnosis (refer Table 1.2 for examples). However, there have been some exceptions, with follow-ups ranging from two to six years (Bentovim, Boston and Van Elberg, 1987; Berliner and Conte, 1995; Waterman and Kelly, 1993) and one very long-term patient follow-up of 17 years (Williams, 1994) (Table 1.2). Another 17 year community study prospectively followed up children and their families but relied on retrospective data on child sexual abuse experiences, therefore the abused young people were not identified as such at study intake (Brown, Cohen, Johnson and Salzinger, 1998). The latter research and a prospective five year follow-up of abused and neglected children (Levy, Markovic, Chaudhry, Ahart, and Torres, 1995) did not examine children's emotional and behavioural outcomes but did provide valuable data on reabuse rates and risk factors for reabuse. In the long-term studies which identified sexually abused children at intake and which focused on behavioural and emotional outcomes, mediating factors were sometimes taken into account but often no control groups were used.

Table 1.2: Prospective studies of child sexual abuse

Author	Duration of follow-up	Follow-up sample	Age at time of abuse	Success rate	Control group used?	Adjusted for mediating factors?	Focus of the study
Bentovim, Boston and Van Elberg (1987)	range of 2-6 years	180 sexually abused children	3 – 16 years	44% seen	No	Factors were assessed, but no regression models were run, so no adjustment took place.	The effects of intervention on families and on abused children's behaviour and emotional states.
Berliner and Conte (1995)	mean = 3.5 years, range = 1.8-7.6 years	82 (74% female, 26% male)	10 – 18 years	20% contacted, slightly fewer participated	Yes	Factors such as family functioning and stressful family events were assessed. No regression models were run.	The effects of disclosure and intervention on children's distress.
Byrne and Valdiserri (1982)	1-3 weeks	45 (7 % female, 28% male)	1 – 14 years	initially 57%, then 65% after follow-up letter sent	No	No: mediating factors not assessed.	Symptoms of disturbance in the children; family functioning and disruption were also examined.
Levy, Markovic, Chaudhry, Ahart and Torres (1995)	5 years	304 (55% female, 45% male)	7 months – 15 years	100% (used computer records only)	No	Yes: took into account time exposed to risk-of-reabuse due to variation in discharge dates and children's ages (e.g. child sexual abuse not able to be reported after age 18 years). Used survival analysis.	Reabuse and neglect of children who had experienced different types of abuse and neglect.

Author	Duration of follow-up	Follow-up sample	Age at time of abuse	Success rate	Control group used?	Adjusted for mediating factors?	Focus of the study
Mellott and Wagner (1993)	mean = 16.2 months (SD=3.0 months) range = 12-20 months	10 females	Mean = 12.8 years, SD = 2.0	32% seen	No (pilot study only)	No: mediating factors not assessed.	Children's self-esteem, depression and hopelessness.
Merry and Andrews (1994)	1 year	66 (83% female, 17% male)	4 – 16 years (some described as being abused prior to age 4 years, but exact ages not listed)	77% contacted, 69% seen	No	No: mediating factors not assessed.	Children's psychiatric diagnoses.
Nagel, Putnam, Noll and Trickett (1997)	approx. 1 year	68 females	Mean = 7.48, SD = 3.21	unknown	No	Yes	Influence of type of sexual abuse disclosure on children's anxiety, depression, mastery and coping.
Oates, O'Toole et al., 1994	18 months	60 abused children and 76 control children	4 – 15 years	83% of abused group and 90% of controls	Yes	Yes	Case-control comparison and change over time in self-esteem, depression and behaviour.

Author	Duration of follow-up	Follow-up sample	Age at time of abuse	Success rate	Control group used?	Adjusted for mediating factors?	Focus of the study
Paradise, Rose, Sleeper and Nathanson (1994)	mean = 6.4 months for sexually abused children and mean = 7.2 months for control children	110 abused children and 24 control children	4 – 12 years	71% of abused children seen, 45% of control children seen	Yes	Yes	Predictors of disturbed behaviour and psychological state
Runyan, Everson, Edelson, Hunter and Coulter (1988)	5 months	75 seen (82% female)	6 - 17 years	75%	No	Yes	Influence of legal intervention on children's behaviour and psychological states
Waterman and Kelly (1993)	5 years	82 ritually sexually abused children	4 – 14 years	49% seen	No	Yes	Children's behavioural and psychological states (e.g. fearfulness, self-esteem)
Williams (1994)	17 years	136 females	10 months – 12 years	74% contacted, 66% seen	No	Yes	Recall of childhood sexual abuse

1.6.3 Control Groups

When assessing the impact of sexual abuse over time, other aspects of children's behaviour and development which are not necessarily attributable to the abuse have to be considered. This problem can be addressed by having a non-abused control group, particularly where this group is very similar to the study group (Kinard, 1994). A control group drawn from a clinical population may not be appropriate as psychiatric problems may be an outcome of undisclosed sexual abuse, as will be discussed later. Similarly, a group of children selected for a control group from a sample of children attending emergency departments may also be inappropriate as certain presenting problems such as urinary tract infections and abdominal pain may be symptoms of sexual abuse (Oates, 1996). A group of children who are chosen on the basis of having experienced physical abuse or neglect are also inappropriate as sexual abuse has been shown to often occur in tandem with other forms of abuse. For example, in one study, over 90% of the abused children were found to have experienced more than one type of maltreatment (McGee, Wolfe, Yuen, Wilson and Carnochan, 1995).

It is clearly useful to have a control group in order to be able to distinguish sequelae of child sexual abuse from difficulties arising from other factors which may arise in children during the course of their development. However, merely having a control group does not allow the effects of prior symptomatology or environmental factors to be taken into account.

1.6.4 Mediating Factors

Long-term studies also need to take into account factors that may mediate the effects of child sexual abuse over time - previously many studies have not done so (Table 1.2). These are environmental and demographic factors which include family functioning, mother's mental health, socio-economic status, negative life events, and the age and gender of the child. Potential mediating factors will be addressed in the discussion of emotional and behavioural sequelae of child sexual abuse in Chapter 2.

1.7 Background and rationale for the study

The aim of any research in the field of child sexual abuse should ultimately be to make recommendations which may reduce the effects of the abuse and lessen its

occurrence. The ideal study design is one which is prospective, long-term, has a control group and takes into account mediating factors. In order for studies to be comparable, a common definition must be used and a focus on a specific area such as treatment or outcome must guide the research.

The focus of the current study is on children's outcomes. The short-term outcomes of child sexual abuse have been extensively documented. These may include depression and low self-esteem (Finkelhor, 1984; Mellott and Wagner, 1993; Stern, Lynch, Oates, O'Toole and Cooney, 1995), anxiety and sadness (Mannarino and Cohen, 1986), school and behaviour problems (Friedrich, Beilke and Urquiza, 1988; Mannarino, Cohen and Gregor, 1989; Runtz and Briere, 1986), running away (Gomes-Schwartz, Horowitz and Cardarelli, 1990), a sense of powerlessness (Finkelhor, 1984) and a reduction in hope for the future (Mellott and Wagner, 1993).

The long-term consequences of child sexual abuse may also include some short-term sequelae which persist, such as depression (Bagley and Ramsay, 1986; Briere and Runtz, 1988; Mullen, Romans-Clarkson, Walton and Herbison, 1988), low self-esteem (Finkelhor, 1984) and increased risk of further victimisation (Beitchman, Zucker et al., 1991). Other problems such as eating disorders (Bulik, Sullivan and Rorty, 1988; Smolak, Levine and Sullins, 1990), attempted suicide and self-injury (Briere and Runtz, 1988), relationship and sexual difficulties (Mullen, Martin, Anderson, Romans and Herbison, 1994), drug abuse (Briere and Runtz, 1988) and criminal activity (Rivera and Widom, 1990) may manifest themselves in late adolescence and adulthood.

1.8 Summary

Child sexual abuse is a very common problem. It is important to define child sexual abuse in a way which allows results to be comparable to other research findings. Similarly, samples must also be selected in a way which allows results to be related to existing work. Research design in the area of child sexual assault has progressed from being retrospective to prospective but there have been few long-term studies of emotional and behavioural outcomes. Few studies have involved comparisons with a control group. It is also important to take into account factors which may mediate the

effects of the sexual abuse, such as family functioning, mother's psychological distress, socio-economic status, the child's age and gender and numbers of negative life events experienced by the young person.

Chapter 2

Literature Review

2. Literature Review

2.1 Restrictions on literature review

This literature review focuses on the sequelae of child sexual abuse. Since the body of literature on child sexual abuse is large, this literature review was restricted largely to work published from 1989 onwards, although some earlier papers which have had an important influence, such as those described by Oates and Cohn Donnelly (1997), are also included. Studies were selected on the basis of their methodology. Studies with sufficiently large sample sizes and which followed up sexually abused young people for a period longer than one year were primarily addressed. Since the age range of the young people in the current study was from nine to 21 years at five year follow-up, studies of children, adolescents and adults were included. In particular, this review focuses on work using standardised measures of functioning, non-clinical control groups and regression modelling or multivariate analysis of covariance.

The sequelae of child sexual assault can be emotional and behavioural. Possible outcomes include depression or sadness, lowered self-esteem, anxiety, reduced hopefulness, increased despair, negative attributional style, behaviour problems, criminal activity, drug and alcohol abuse, running away, self-injury, suicidal ideation and attempts, eating problems, and increased risk of revictimisation. The strength of these findings is placed within the context of the design of those studies. Each of these sequelae is discussed below, and potential mediators of these outcomes are outlined.

2.2 Depression

Sexually abused children have been shown to be more depressed or sad than their nonabused peers during childhood, adolescence and adulthood. In a review of patients' charts at a child psychiatry outpatient department, where children's mean age was 12.1 years, a significant relationship was found between having a diagnosis of major depression and having a history of child sexual abuse (Lanktree, Briere and Zaidi, 1991). In a sample of 3,124 girls aged predominantly from 14 to 16 years, sexually abused girls were 1.5 times more likely to report frequently feeling depressed in the last month than nonabused girls (Nagy, DiClemente and Adcock, 1995). Sexually abused 15 year old females have been reported as being twice as likely to have clinical levels of depressive symptomatology than their nonabused peers (Silverman, Reinherz and Giaconia, 1996).

Similarly, sexually abused 21 year old females have been reported as being more likely to receive a diagnosis of major depression than their nonabused counterparts (Silverman, Reinherz and Giaconia, 1996). Women aged 18-87 years (n = 237) who presented to general practices in Ireland were assessed for depression, with 37% of depressed women and 23% of non-depressed women also reporting child sexual abuse (Cheasty, Clare and Collins, 1998). Depressed women were twice as likely as non-depressed women to have been sexually abused, and this was a statistically significant relationship. It is interesting to note that the rates were identical for adolescents and adult women.

2.2.1 Mediating factors and predictors of depression

A variety of factors have been identified as mediators in the relationship between child sexual abuse and depressive symptomatology. Some of these factors have been identified as influences on normal development, for example, age and gender can affect levels of unhappiness or depression in non-abused children, with older girls being more likely to be depressed (Kazdin, 1990; Nolen-Hoeksema and Girgus, 1994). In a comparison of data from 59 sexually abused children aged five to 17 with data from a large normative sample, sexually abused children had significantly higher depression scores, with 28% scoring in the clinical range (Wozencraft, Wagner and Pellegrin, 1991). Regression modelling showed that age was a mediating factor, with sexually abused children who were older at the time of assessment being more likely to have depression scores in the clinical range (Wozencraft, Wagner and Pellegrin, 1991). Since age was shown to be a mediating factor, it is important to adjust for it in analyses establishing significant predictors of depression. In a college sample of 173 males and 265 females, 28 males and 63 females reported child sexual abuse (Boudewyn and Liem, 1995). After controlling for age, child sexual abuse history remained significantly associated with depression, with females being more likely to report depression than males. Within the sexually abused group, significant predictors of depression were greater frequency and duration of the abuse and the presence of coercion. This is in contrast to the findings of Whiffen and Clark (1997), where aspects of the child sexual abuse event and the gender of the child were not significant predictors of depression, whereas child sexual abuse per se was significantly related to depression.

Pre-existing factors have also been examined as potential mediators of outcome. In 94 sexually abused girls aged between six and 12 years who were followed up over a two year period, depression scores were found to be related to prior developmental and psychiatric difficulties at a univariate level (Mannarino, Cohen and Berman, 1994). However, this work was inhibited by the

study design whereby parents were asked to try to recall aspects of their children's behaviour and development prior to the abuse which had occurred up to six months previously.

The design of a study is crucial in order to be able to determine mediating factors. Boney-McCoy and Finkelhor (1995, 1996) surveyed a large group of children aged 10 to 16 years and followed them up approximately 15 months later. The follow-up sample remained large and consisted of 772 boys and 661 girls. Boney-McCoy and Finkelhor assessed children's victimisation experiences, sadness, post-traumatic stress symptomatology, demographics and the quality of the parent-child relationship. Victimised boys and girls experienced more sadness in the last month (Boney-McCoy and Finkelhor, 1995) and analysis of covariance showed that sadness at follow-up was associated with victimisation during the follow-up period, even after adjustment for prior symptomatology and the quality of the parent-child relationship at intake to the study (Boney-McCoy and Finkelhor, 1996). In fact, prior symptomatology and the parent-child relationship were significant predictors of symptomatology at follow-up. They suggested that part of the relationship between victimisation and psychopathology seen in cross-sectional studies may arise from prior psychopathology and strained parent-child relationships. They noted that it is important not to "over control" for these factors in analyses because this may mask some of the true association between victimisation and symptomatology.

The best means of determining pre-existing influences on outcome is by prospectively studying a birth cohort and using multivariate analyses. In a birth cohort of 1,025 children, Lynskey and Fergusson (1997) found significantly higher rates of major depression and other psychiatric disorders among 107 sexually abused young people by 18 years of age. These rates increased with the severity of the abuse. Regression modelling showed that protective factors in the development of these psychiatric disorders were higher levels of paternal care during childhood, together with fewer affiliations with delinquent or substance abusing peers. Once the model adjusted for these factors, severity of the abuse was not a significant predictor of outcome.

A variety of parenting variables has been found to mediate the relationship between child sexual abuse and depression in adults and children. In a community sample of 259 working women, Wind and Silvern (1994) used predictive modelling and showed that intrafamilial child sexual abuse negatively affected adult depression through the intermediate variable of parental support. Once the variable parental support was put into the model, child sexual abuse was no longer a significant

predictor of depression. Furthermore, after controlling for abuse, the parenting variable remained significant.

In a large community study of women, Romans, Martin and Mullen (1996) found that sexual abuse, emotional abuse and a history of domestic violence in the parental relationship were all significant predictors of having a depressive disorder. Other work with adults has indicated that depression has been related to deprivation in the form of a lack of parental care (Portegijs, Jeuken, et al. 1996). Regression analyses in a study of children identified significant relationships between depression and girls' negative cognitive appraisals and their perceptions of parental support, although the sample was small (n = 48 girls) and was drawn solely from an agency providing therapy for child sexual abuse (Spaccarelli and Fuchs, 1997).

Maternal levels of depression may also play a role in depressive symptoms in children. Fergusson, Horwood and Lynskey (1995) found a significant correlation between maternal depression scores and those from female children's self-reports, but not in those of males. They suggested that there may be a weak link between mothers' depression and daughters' depression, which is mediated via the association between mothers' depression and increased parental conflict, negative life events or marital dissatisfaction. Negative life events have been observed to be significant predictors of depressive symptomatology in normal children during early childhood, and in conjunction with a pessimistic attributional style in older children (Nolen-Hoeksema, Girgus and Seligman, 1992).

2.3 Self-esteem

Child sexual abuse has been associated with low self-esteem. In a random sample of 497 adult women derived from electoral rolls in New Zealand, Mullen, Martin, et al. (1996) found that 53 (11%) of the women had experienced child sexual abuse. The abuse was significantly related to having poor self-esteem in adulthood, a decline in socio-economic status and a decrease in the likelihood of completing high school or attaining a higher qualification. Logistic regression showed that having low self-esteem was related to sexual abuse, emotional abuse, describing oneself as a shy child and having had a chronically physically ill mother.

2.3.1 Mediating factors and predictors of self-esteem

It is interesting to note that in a combined sample of abused and nonabused women, independent predictors of low self-esteem were: having an over-protective mother, being a loner or follower as a child, having poor qualifications, having a history of depressive disorder and having a current or

past psychiatric disorder (Romans, Martin and Mullen, 1996). Preabuse developmental and psychiatric difficulties have been found to be significant predictors of self-esteem in children (Mannarino, Cohen, and Berman, 1994) and parental support has also been found to be important in the development of positive self-esteem in adult women (Wind and Silvern, 1994). Long-term negative life events have also been shown to have a detrimental effect on self-esteem 18 months after presentation for sexual abuse (Oates, O'Toole, et al., 1994).

Certain aspects of the abuse can affect self-esteem. Increasing severity of abuse has been seen to significantly reduce self-esteem immediately after presentation for sexual abuse (Stern, Lynch, et al., 1995) and experiencing multiple abusive events has also been found to negatively affect self-esteem 18 months after presentation for abuse (Oates, O'Toole, et al., 1994). The closeness of the relationship between the child and the perpetrator has been observed to be related to self-concept, with closer relationships being associated with lower perceived cognitive competence in children aged four to 12 years (Black, Dubowitz and Harrington, 1994). When non-resilience was defined as having self-esteem scores below the mean, non-resilient sexually abused women were more likely to have reported experiencing overt physical force during the sexual assault, to have experienced the sexual abuse more recently than the resilient women and to be more self-blaming (Liem, James, et al., 1997). In the study by Romans, Martin and Mullen (1996), only for those who experienced an intrusive form of child sexual abuse was the abuse also a significant predictor of low self-esteem. Child sexual abuse per se was not significantly associated with having low total self-esteem scores, although it was significantly associated with what was termed pessimism and fatalism sub-scales on the self-esteem measure. It would seem logical to identify these sub-scales as such and not to define them as components of self-esteem.

Recent research has suggested that particular components of self-esteem may be detrimentally affected by experiencing child sexual abuse. Brayden, Deitrich et al. (1995) formulated predictive models and showed that the child sexual abuse remained a significant predictor of physical self-concept (body image, physical appearance, skills and sexuality) but not of family self-concept (how one sees oneself as a family member). Parental nurturance, the women's ages and whether they were married were three variables which together predicted family self-concept. The authors suggested that for some of the women, child sexual abuse may not have predicted family self-concept because of the strong modifying effect of becoming emancipated from abusive families and forming their own healthier families. It should be noted that Brayden et al. (1995) did not find

a significant association between global self-esteem scores and sexual abuse after family and demographic variables were removed from the model.

2.4 Anxiety

As discussed in Chapter 1, design problems have often been present in work in the area of child sexual abuse and this applies to the study of anxiety. Earlier work on anxiety in sexually abused children reported the rates of anxiety disorders in children 12 months after abuse, but did not compare it to that of matched controls or the normal population. For example, Merry and Andrews (1994) reported rates of anxiety disorders in a population of sexually abused children one year after disclosure as being as high as 30%, but did not compare this with rates in a similar nonabused population.

Sample size is another problem in the area of research on anxiety. In a 17 year follow-up study of 375 children attending public schools in a working class area in the north-eastern United States, females were 12 times more likely than males to have been sexually abused (Silverman, Reinherz and Giaconia, 1996). Although the actual number of females who were sexually abused prior to the age of 15 was small ($n = 16$), they were more likely to be in the clinical range of the anxious-depressed sub-scale of the Youth Self Report (Achenbach, 1991) at age 15 than their nonabused peers.

In a well designed study of the influence of child sexual abuse and other factors on the rates of psychiatric disorders in 1,025 young people in New Zealand aged 16 to 18 years, the prevalence rate of anxiety disorders in nonabused young people was 14.2% (Lynskey and Fergusson, 1997). Rates of anxiety disorders were significantly higher in sexually abused young people than in nonabused young people, and there was an approximately linear increase with the severity of the abuse, ranging up to 44.4% in young people who had experienced intercourse.

Child sexual abuse has been reported to increase the risk of developing anxiety disorders in adulthood (Pribor and Dinwiddie, 1992). In one study, for example, 45% of 51 women with panic disorder, obsessive-compulsive disorder or social phobia reported sexual abuse in childhood compared to 15% of 52 controls drawn from the community (Stein, Walker, et al., 1996). That is, women with an anxiety disorder were 4.52 times more likely to have been sexually abused. The rate of child sexual abuse was higher in those with panic disorder, compared to the other anxiety disorders examined in the study.

2.4.1 Mediating factors and predictors of anxiety

Few studies have described predictors of the development of anxiety disorders in sexually abused young people. However, in the few that do exist, family and peer relationships have been important influences (Lynskey and Fergusson, 1997). Along with child sexual abuse, the young person's gender, maternal age, parental attachment and parental history of offending have also been shown to be significant predictors of anxiety disorders (Lynskey and Fergusson, 1997). Preabuse developmental and psychiatric difficulties have been shown to negatively influence anxiety (Mannarino, Cohen and Berman, 1994) and some aspects of the abuse disclosure have also been observed to be influences on later anxiety. In one group of sexually abused children, for example, those who disclosed purposely were significantly more anxious than other abused children at 12 month follow-up (Nagel, Putnam, Noll and Trickett, 1997).

2.5 Hope and Despair

Hope has been defined as an expectation of positive events (Nunn, 1996). Hope is distinct from despair, and is not necessarily its polar opposite: despair is defined as having negative expectations for the personal future and may occur in tandem with hopefulness (Nunn, 1996).

Some psychiatric conditions may represent disorders of personal hopefulness, such as institutionalisation (Nunn, 1996) and the pervasive refusal syndrome in young people (Nunn and Thompson, 1996). Personal hopefulness has also been found to be linked to post-traumatic psychiatric symptomatology (Nunn, Lewin, Walton and Carr, 1996) and with coping and recovery from anxiety and depression (Brown, Lemyre and Bifulco, 1992).

Learned helplessness, where an individual feels that nothing they do can effect a positive outcome, has increasingly been formulated in terms of coping (Mikulincer, 1994) and perceived non-contingency is increasingly being replaced with broader concepts of pessimism and optimism (Seligman, 1992). Many of the emotional and behavioural outcomes associated with learned helplessness have already been documented as effects of child sexual abuse. These include depression (Fergusson, Horwood and Lynskey, 1996; Mullen, Martin et al., 1993; Mullen, Martin et al., 1996), a sense of powerlessness (Finkelhor, 1984), attempted suicide (Fergusson, Horwood and Lynskey, 1997) and self-injury (Boudewyn and Liem, 1995), as discussed above.

Although improvement in hopelessness has been observed in sexually abused young people (Mellott and Wagner, 1993), hopefulness and despair per se have not been examined in this population. Pessimism and fatalism have been studied as sub-scales of self-esteem in work with large community studies of adult women, with sexually abused women having poorer scores on pessimism and fatalism than nonabused controls (Romans, Martin and Mullen, 1996). However, to date, there has been no work with sexually abused populations using instruments specifically designed to measure personal hopefulness and despair. Further, the relationship between the perceived future and impairment in coping, and how sexually abused young people feel about their capacity to control their futures and in particular, which factors predict levels of hopefulness and despair, have not been previously reported.

2.6 Attributional Style

Attributional style has been shown to be a stable construct (Tiggemann, Winefield, Winefield and Goldney, 1991) and it refers to the way an individual explains causality of given types of events. Three components of attributional style have been defined: internality/externality, globality/specificity and stability/instability (Abramson, Seligman and Teasdale, 1978). *Internality/externality* distinguishes events attributed to certain characteristics of the individual from those caused by an external factor. *Globality/specificity* refers to generalising an outcome to all events or only to certain specific types of events. *Stability/instability* describes whether events are viewed as occurring in a certain way consistently over time compared to changing over time.

A number of observations have been made about attributional style in nonabused children which are pertinent to sexual abuse research. For example, a relationship has been established between attributional style and depression. In children, attributional style and depressive symptoms have been found to correlate significantly, with depressive attributional style predicting depression six months later (Seligman, Peterson et al., 1984). Children who attributed negative events to internal, stable and global causes, that is, possessing a *depressive attributional style*, have been shown to be at greater risk of higher depression scores than children who attributed these events to external, unstable and specific factors. Age and gender can affect attributional style in non-abused children (Nolen-Hoeksema, Seligman and Girgus, 1989), for example, older females are more likely to be depressed and more likely to have a more negative attributional style.

2.6.1 Mediators and predictors of attributional style

As discussed previously, life events can play a significant role in the genesis of depression. Negative life events have been observed to lead to an increasingly depressive attributional style for negative outcomes, particularly with regard to the global aspect of this form of attribution (Tiggemann, Winefield, Winefield and Goldney, 1991). Hopelessness has also been shown to be related to attributional style, but only for the stability dimension, with those attributing positive outcomes to unstable causes and negative outcomes to stable causes being more hopeless three years later (Tiggemann, Winefield, Winefield and Goldney, 1991).

Resilience work has examined aspects of attributional style, although it is referred to as “positive projective anticipation “ and cognitive restructuring of painful experiences” (Mrazek and Mrazek, 1987). Positive projective anticipation has been described as the ability to imagine oneself in the future after given negative events have ceased. People who are able to plan alternative strategies for the future therefore have a process by which they are able to gain a sense of control over the present ” (Mrazek and Mrazek, 1987). Cognitive restructuring refers to the ability to identify a positive aspect or outcome of a negative event, and this is also apparent in those who are able to appreciate their own adaptive responses to a negative event.

While much has been written about powerlessness, shame and self-blame as prominent features of some sexually abused children (Finkelhor and Browne, 1985, there is a dearth of literature on attributional style per se in this population. The only study to date which has examined attributional style in sexually abused children did not use a control group, was restricted to girls only and had an average follow-up of five weeks after disclosure of the abuse (Hazzard, Celano et al., 1995). Greater self-blame was found in children who were younger, had a depressive attributional style and whose mothers tended to blame them, but in a regression model, only attributional style predicted self-blame. Since self-blame can be defined as attributing the reason for a negative event to oneself, it is likely that this predictive model was produced as a result of the strong relationship between having a depressive attributional style and being self-blaming.

2.7 Behaviour

There is evidence for a significant relationship between child sexual abuse and problem behaviour across a wide range of ages. In children aged from four to 12 years, a significant relationship has been found between sexual abuse and externalising and internalising scores on the Child Behavior

Checklist, where more sexually abused children were shown to be in the clinical ranges for these sub-scales (Black, Dubowitz and Harrington, 1994). Age was not found to be related to behaviour problem scores in sexually abused children, although there was a relationship between age and behaviour scores in nonabused children. This discrepancy may have arisen due to the fact that children's ages were divided into two groups using the median age as a cut-point. A more precise observation of the relationship between age and behaviour would have been obtained had both measures of age and behaviour been continuous. The above study was a short-term follow-up, and even higher rates of clinical behaviour scores have been found in sexually abused children aged 10 to 17 years in another short-term study of sexually abused children (Spaccarelli and Kim, 1995). In an 18 month follow-up of sexually abused children and nonabused controls with a mean age of nine years, significantly more of the sexually abused children were in the clinical range for problem behaviour than controls (Oates, O'Toole, Lynch, Stern and Cooney, 1994).

Among adolescents, females sexually abused as five year olds had significantly higher problem behaviour scores than their nonabused peers on several of the sub-scales of the Youth Self Report (YSR: Achenbach, 1991), including social problems and aggressive behaviour (Silverman, Reinherz and Giaconia, 1996). In young people aged 16 to 18, sexually abused young people have been shown to be significantly more likely to receive a diagnosis of conduct disorder than their nonabused counterparts (Fergusson, Horwood and Lynskey, 1996). Abused and nonabused 21 year old women have also been significantly different on externalising, internalising and total emotional-behavioural problems scales (Silverman, Reinherz and Giaconia, 1996).

2.7.1 Mediating factors and predictors of behaviour

A number of predictors of problem and resilient behaviour have been established, with parent and family variables being particularly important. There is evidence that preabuse developmental and psychiatric difficulties (Mannarino, Cohen and Berman, 1994), and psychosocial circumstances (Paradise, Rose, Sleeper and Nathanson, 1994) can negatively influence behaviour in sexually abused children. In young people 16 to 18 years, sexual abuse, gender, ethnicity and parental attachment together predicted the rate of conduct disorder (Fergusson, Horwood and Lynskey, 1996). Poorer family functioning has been shown to negatively affect children's behaviour at presentation for the abuse (Stern, Lynch et al., 1995) and 18 months afterwards after accounting for severity of the abuse (Oates, O'Toole et al., 1994). The quality of the relationship between the sexually abused child and the caregiver has also been shown to significantly influence externalising behaviour (Hazzard, Celano et al., 1995).

Logistic regression has shown that greater supportiveness by the parent and lower total abuse stress are significant predictors of resilience as measured by a combination of behaviour, depression and anxiety (Spaccarrelli and Kim, 1995). Similar findings were obtained in a five year follow-up of ritually abused children, with therapist ratings of maternal supportiveness of the child and maternal ratings of family life stress being the significant predictors of children's behaviour scores at the time of most distress (Waterman and Kelly, 1993).

Significant relationships between behaviour scores and severity of the abuse have been documented, although other characteristics of the abuse, presence of physical findings, the child's age and disclosure have not been found to be related to behaviour (Black, Dubowitz and Harrington, 1994). Other recent work has found no relationship between self-reported behaviour and sexual abuse or any aspects of the abuse such as identity of the abuser, age of onset of the abuse, severity and other variables (Kumar, Steer and Deblinger, 1996). On the basis of these findings, a life events model was proposed where child sexual abuse was viewed as a negative life event, where the child's reaction to this event was the key factor in determining their psychological adjustment (Kumar, Steer and Deblinger, 1996).

Mothers' mental health has been shown to influence outcome. Mothers' use of avoidance-coping strategies has been found to be related to deterioration in sexually abused children's behaviour 18 months after presentation for abuse (Oates, O'Toole et al., 1994). In a study of psychiatric and general paediatric outpatients, mothers' levels of depression and children's gender have been found to influence mothers' ratings of their children's behaviour on the Child Behavior Checklist, although mothers' ratings still distinguished clinical from non-clinical children (Friedlander, Weiss and Traylor, 1986). Abuse together with mothers' depressive symptoms have been found to be significant predictors of children's problem behaviour measured with the Child Behavior Checklist (CBCL; Achenbach and Edelbrock, 1991a) in a study of sexually and physically abused and neglected children in the United States with a mean age of nine years (Kinard, 1995). The three forms of abuse and neglect were combined in this study, however, so it is not possible to determine whether this relationship was also the case for those children who experienced sexual abuse alone. It is likely that this is the case since children who have been sexually abused have commonly experienced more than one form of abuse. In one study, for example, it was observed that over 90% of children had experienced more than one form of abuse or neglect, including exposure to family violence (McGee, Wolfe et al., 1995).

A number of variables influence behaviour in children in the wider population and it is likely that these factors will exert similar effects in abused children. Socio-economic status (SES) has been associated with behaviour problems in a random sample of children drawn from the general population (Verhulst and Althaus, 1988). There has been some controversy regarding its relationship to sexual abuse, with some authors finding no relationship (Finkelhor, 1993) and others reporting that lower SES was associated with an increased risk of child sexual abuse (Gallup Organization, 1995). Initial behaviour and life events have been reported to be significant predictors of behaviour two years later in a general population sample of Dutch children (Berden, Althaus and Verhulst, 1990). These findings, particularly the contradictory results, highlight the importance of including these variables in multiple regression models.

2.8 Criminal Behaviour

The “cycle of violence” related to child abuse has long been discussed in the literature. Using a prospective cohort design, Widom (1989) compared a group of adults abused and/or neglected as children with a comparison group not known to have been abused or neglected. Significantly more of the abused/neglected people had adult non-traffic criminal records and arrests for violent crimes than controls. However, there were no significant differences in terms of adult arrests between those with histories of child abuse and those with neglect. Older subjects were significantly more likely than younger subjects to have a criminal record and similarly, males and African-Americans were more likely to have criminal records than females and Caucasians. Compared to controls, abused and neglected children began general delinquent behaviours at an earlier age although when temporal patterns of *violent* offending were examined, abused/neglected children were no different to controls with regard to age at first arrest for a violent crime (Rivera and Widom, 1990).

2.8.1 Mediating factors and predictors of criminal behaviour

Widom (1989) found that each of the variables, age, gender, race and abuse/neglect status, contributed to predicting adult criminal behaviour. She also pointed out that the majority of abused or neglected children did not become criminal or violent offenders.

In a further analysis of the data, Widom and Ames (1994) divided the group of abused and neglected children according to type of abuse and neglect. They found that early childhood sexual abuse did not increase the likelihood of later delinquent and adult criminal behaviour compared to other forms of abuse and neglect; however, child sexual abuse victims were more likely to have

been arrested as juveniles for running away. Sexually abused and physically abused children were more likely than controls to be arrested for sex crimes and prostitution as adults, although there was no significant relationship between child sexual abuse, running away as adolescents and adult arrests for prostitution. For males, there were significant links between physical abuse and arrests for violent sex crimes such as rape and sodomy. There was no significant relationship between child sexual abuse and later violent sex crimes. The link between violent offences and prior physical abuse, and not sexual abuse, has been found elsewhere (Famularo, Kinscherff, Fenton and Bolduc, 1990), as has the link between both physical abuse and neglect and being arrested for a violent crime after controlling for age, race and gender (Maxfield and Widom, 1996).

Family functioning may play a role in criminal activity. In a large community study, Fergusson and Horwood (1998) found that children who were exposed to domestic violence initiated by their father against their mother were significantly more likely to have committed property offences. This was the case after adjusting for socio-economic status, family functioning and a history of child abuse. Maternal depressive mood, interparental conflict, parental divorce, poor mother-adolescent relationships and poor maternal communication and problem-solving skills have also been shown to predict the number of different types of crimes committed by young adults (Klein, Forehand, Armistead and Long, 1997). Similar factors were identified in a meta-analysis by Loeber and Stouthamer-Loeber (1986) where lack of parental supervision, parental rejection of the child and low parental-child involvement were shown to be the strongest predictors of juvenile behaviour problems and delinquency. Weaker predictors were the quality of the parents' marital relationship, parental criminality, lack of parental discipline, mothers' ill health and parental absence. A variety of parental variables, particularly with regard to mothers, are thus predictive of juvenile criminal activity.

Case-control studies have identified specific aspects of family functioning which differ between the normal population and delinquents. Bischof, Stith and Whitney (1995) compared a normative population, with juvenile populations of sexual offenders, non-sexual violent offenders and non-sexual non-violent offenders. They found that each delinquent group rated their families as less cohesive, less expressive and less independent than did the normative group. Normal families were also rated as having a more intellectual-cultural orientation than the violent and non-violent offenders, having a higher active-recreational orientation and having lower levels of control than families of nonviolent offenders. There were no significant differences between each of the groups of delinquents.

The role of family dysfunction in the genesis of sexual offending in particular has also been examined. In an English study, the one-year prevalence rate of juvenile sex offending was found to be 1.5 per 1,000 males aged 12-17 within the Oxfordshire area (James and Neil, 1996). More than 50% of offenders had more than one victim, with the majority of victims being female. Of the sample of 34 sexually abusive young people, three were female. Fifty-six percent of abusers had a history of contact with the police, and many had a history of psychological problems such as anxiety (38%) and depression (29%). A large proportion of juvenile abusers were identified as originating from dysfunctional families with histories of sexual and physical abuse and neglect, with 35% of juvenile offenders self-reporting a history of child sexual abuse.

It may be that the family dysfunction which may coexist with the abuse is a stronger predictor of future criminal activity in young people than the abuse itself. Path analysis has shown that neglect, rather than abuse, mediates the relationship that criminal behaviour has with poverty and being in a single parent family (Weatherburn and Lind, 1998). Accommodation placements may be reflective of family functioning, with alcoholic or mentally ill parents increasing the likelihood that children will be placed outside the home; however, sexually abused children have been found to be least likely to have been placed compared to other abused and neglect children (Widom, 1991). Children placed at older ages and experiencing more placement changes have had higher rates of criminal activity as juveniles and adults, particularly for violent crimes (Widom, 1991).

In Widom and Ames' (1994) sample, the nature of the sexual abuse was found not to predict adult criminality. That is, the type of abuse (penetrative or not), relationship of the child to the offender and the living situation of the perpetrator (in the child's home or not) were not related to outcome in the children. The authors noted that it is important to eliminate cases from the group which involved young people who were already exhibiting delinquent behaviour, because this behaviour may have played a role in the young person's risk of child sexual abuse. There were a few caveats which were stated by the authors (Widom, 1989; Widom and Ames, 1994). Firstly, only those crimes for which there were official records were examined. It is possible that actual crimes committed by adults abused as children were more frequent and more serious than those included in this study. Secondly, the age range in Widom and Ames' (1994) study was restricted to those children who were younger than 11 years at the time of abuse. Thirdly, cases were taken from the time period 1967-1971, so these cases would have been quite severe as they pre-dated mandatory child abuse reporting laws. Fourthly, cases were also skewed towards lower socio-economic status

and multi-problem families. Fifthly, emotional damage from child abuse can manifest itself as depression, anxiety, withdrawal or suicide, so attrition rates in studies of later criminal offending may be hampered by the deaths of some subjects and the diversion of subjects into treatment (Widom, 1989). Lastly, Widom and Ames (1994) noted that children's outcomes may have been affected by the fact that all cases were substantiated and children received treatment, agency and court intervention.

2.8.2 Normal samples

There is evidence that criminal activity is commonly found in the general community. In a study of American youth in grades six to 12, it was found that in the last year, 10% had destroyed property two or more times, 7% had been in trouble with the police twice or more, 10% had stolen property from a shop two or more times and 2% had used a weapon such as a gun or knife twice or more to extort something from a person (Benson, 1997). Australian work has produced similar results. A survey of NSW secondary school students showed that 39.3% had ever assaulted another person outside sport, 38.6% had committed malicious damage, 22.8% had received or sold stolen property, 15.0% had stolen goods worth \$20 or more from a shop, 9.4% had committed break and enter and 6.8% had stolen a motor vehicle (Baker, 1998). In that study, predictors of criminal activity included level of supervision of the young person and family structure, and lower levels of supervision and young people not being with both of their original parents increased the risk of criminal activity. While the relationship between having a history of child abuse and neglect and criminal activity was not explored, the high rate of criminal activity in the normal population was certainly highlighted.

2.9 Running Away

Of 2,902 young people served by shelters in Los Angeles County over a 1 year period from 1986 to 1987, 46.6% reported abuse or neglect (Pennbridge, Yates, Davis and Mackenzie, 1990). Running away can be a sequela of abuse, particularly of sexual abuse, in older children. As stated above, Widom and Ames (1994) found that young people with histories of child sexual abuse were more likely to have been arrested for running away as juveniles than controls. There were no significant differences across the different abuse/neglect groups, although children who had experienced sexual abuse plus physical abuse or neglect had a higher rate of arrest for running away than all other abuse/neglect groups.

Research by Booth and Zhang (1996), focussing on runaway and homeless adolescents, has shown that 55% of runaways met the diagnostic criteria for conduct disorder. Importantly, logistic regression showed that sexual abuse was the sole significant predictor of conduct disorder. Half of the runaways in the study had experienced sexual abuse, 28% of males and 76% of females, with an average age of onset of sexual abuse of nine years. Sexual abuse generally occurred approximately one year prior to the onset of the first symptom of conduct disorder, suggesting a temporal link between sexual abuse and conduct disorder. It appears that running away may sometimes be one of the sequelae of conduct disorder preceded by child sexual abuse.

Reports by parents of runaways concur with reports given by their homeless children. In a study of homeless young people and their housed parents, parents reported that 18% of girls and 5% of boys had received sexual approaches by caregivers, and that 15% of girls and 5% of boys had been sexually abused (Whitbeck, Hoyt and Ackley, 1997). Reports from the young people themselves showed that 30% of the girls reported sexual advances and 35% were sexually abused. Boys' self-reports indicated that 9% had received sexual advances and the same proportion had been sexually abused. There were no significant differences in the proportions of parents and young people reporting sexual advances and abuse, with the exception of more girls reporting sexual abuse than did their parents.

2.9.1 Mediating factors and predictors of running away

Gender also appears to influence the relationship between abuse and running away, with more female runaways reporting sexual abuse (87.3%) or sexual and physical abuse (83.9%) than male runaways in a sample of over 2,000 runaway youths in the United States (Kurtz, Kurtz and Jarvis, 1991). This may, however, reflect the general trend for more females than males to report sexual abuse (as discussed in Chapter 1). Other work with status offenders has shown that even after adjusting for age, gender and ethnicity, abused and/or neglected young people remained more likely to have appeared in court for running away than for truancy or disobedience (Famularo, Kinscherff, Fenton and Bolduc, 1990). Whilst all forms of abuse and neglect were combined in the latter study, it appears that sexual abuse was the form of abuse or neglect most responsible for the relationship between abuse/neglect and running away. In that study, runaways were seven times more likely to have been sexually abused than those in the combined group of truants and young people who were appearing in court for being disobedient. Furthermore, there was no significant relationship at a univariate level between running away and physical abuse, emotional abuse or neglect.

2.10 Suicidal ideation, Self-injury and Suicide

Suicidal ideation is common in adolescents, and it is a precursor to, but is not necessarily followed by, actual suicide. Significant adults are seldom aware that young people are thinking about suicide. Suicide attempts can be a hidden problem, manifesting themselves as deliberate or apparently accidental self-injury without occasioning death and often in the absence of medical intervention.

Suicide rates for males aged 15 to 24 in NSW have risen dramatically since the 1960s (Dudley, Kelk et al., 1998). In 1996, after motor vehicle accidents, suicide was the most common cause of death in Australians aged 15 to 24 (Australian Bureau of Statistics, 1996). Of 2,737 children surveyed in the Western Australian Child Health Survey, 11.5% of 12 to 14 year olds and 23.5% of 15 to 16 year olds reported suicidal ideation (Zubrick, Silburn et al., 1995). However, only 3% of caregivers of 12 to 16 year olds reported that children had talked about killing themselves, a very large discrepancy. Others (Garrison, Jackson et al., 1991) have observed this discrepancy in similar age groups. It has also been documented that not all people who attempt suicide will present for medical assistance. In one study, 5% of people reported suffering injury or illness after a suicide attempt, compared to 3% who reported seeking medical care afterwards (Meehan, Lamb, Saltzman and O'Carroll, 1992).

Suicidal ideation has been reported in all attempters in one study of children aged 12 to 14 years (Garrison, Jackson et al., 1991). Deliberate self-harm or suicide attempts were reported by 7.5% of all adolescents surveyed in the Western Australian Child Health Survey and these were one third of the children with suicidal ideation (Zubrick, Silburn et al., 1995). It has been estimated that there are approximately 30 para-suicides for every completed suicide (Hassan, 1995).

2.10.1 Mediators and predictors of suicide attempts and self-injury

Various psychiatric illnesses have been identified as risk factors for suicide in adults. These include depression, schizophrenia and personality disorder (Davis and Schrueder, 1990). Childhood depression has also been observed as being a significant risk factor for suicide in adolescence and early adulthood (Brent, Kalas et al., 1986; Rao, Weissman, Martin and Hammond, 1993). After controlling for gender and race, having a major depressive disorder together with negative life events have been reported to predict suicidal ideation and attempts (Garrison, Jackson et al., 1991). In a 10 year prospective study of patients hospitalised as a result of suicidal ideation,

however, hopelessness, and not depression, was a significant predictor of later completed suicide (Beck, Steer, Kovacs and Garrison, 1985). Negative life events were not measured in that study.

Wagner (1997) stated that there is some evidence that poor family functioning, poor parent-child communication, parental separation or loss and psychopathology in first-degree relatives are also risk factors. Wagner observed, however, that due to the poor designs of some studies, it has not always been possible to establish a temporal link between these factors and suicidal behaviour. In a well designed study, Lynskey and Fergusson (1997) found that family and peer relationships were significantly related to attempted suicide. Among those who reported suicidal ideation, family problems, adjustment difficulties and psychiatric disorders increased the risk of suicide attempts (Fergusson and Lynskey, 1995b). Others have found that after controlling for depression, variables significantly associated with past suicide attempts in young people aged 14 to 18 years included gender, conflict with parents, pessimism, depressive attributional style and poor support by family and friends (Lewinsohn, Rohde and Seeley, 1993). The important variable of sexual abuse was not measured in that study.

In a review of the literature on family related risk factors for child and adolescent suicidal behaviour, Wagner (1997) stated that physical and sexual abuse have consistently been found to be risk factors. There is evidence that child sexual abuse is more strongly related to suicide attempts than physical abuse during childhood (Bryant and Range, 1995), although the reverse may be true for physical abuse sustained as an adult (Kaplan, Asnis, Lipschitz and Chorney, 1995). In a study of 600 adolescents in Rhode Island in the United States, sexually abused young people were three times more likely than their nonabused peers to have attempted suicide (Riggs, Alario and McHorney, 1990). Similarly, after adjusting for gender and age, having a history of rape was predicted by having a history of attempted suicide together with running away and violent behaviour in French adolescents (Choquet, Darves-Bornoz et al., 1997).

Suicide in adults has been associated with alcohol dependence (Davis and Schrueder, 1990) and this has also been seen in adolescents. In one study of homeless and potentially homeless adolescents, binge drinking and child sexual abuse were not independent predictors of suicide attempts, but a strong interaction between these two variables, along with gender, was significant (Sibthorpe, Drinkwater, Gardner and Bammer, 1995).

Sexual abuse, total number of negative life events, changes in living situation, caregiver changes and separation of parents have all distinguished suicidal adolescents aged 14 to 21 years from depressed or normal adolescents (De Wilde, Kienhorst, Diekstra and Wolters, 1992). Sexual abuse has been shown to be a significant risk factor for suicide attempts after controlling for age, gender, education, post-traumatic stress symptoms and major depression in older women (Davidson, Hughes, George and Blazer, 1996).

Sexual abuse did not discriminate between completed suicides, hospitalised and non-hospitalised suicide attempts in a study of suicides in young people in Victoria aged 15 to 24 years (Tiller, Krupinski et al., 1997). However, because there was no control group, it was not possible to compare these people with other young people who had not attempted suicide. It may be that it is in fact poor coping which is being expressed. Certainly some women sexually assaulted as children have been found to have poorer coping behaviour than nonabused controls, reflected by their greater risk of being victims of domestic violence, alcohol and tranquilliser abuse as well as suicide attempts (Yellowlees and Kaushik, 1994).

Aspects of the sexual abuse can be important predictors of suicide attempts and self-injury. Poor coping in children, as measured by cognitive and behavioural coping strategies, has also been associated with more severe forms of sexual abuse (Cohen, Spirito et al., 1996). In adults, higher rates of suicide attempts and self-harm have been associated with abuse severity, frequency, duration and younger age of onset after adjusting for age (Boudewyn and Liem, 1995). Sexual abuse by peers has been seen to be equally strongly associated with suicide attempts as sexual abuse by adults (Peters and Range, 1995).

2.11 Drug use

Alcohol and other drug abuse and dependence have been established as sequelae of child sexual abuse in children, adolescents and adults. Sexual abuse has been associated with markedly high relative risk of multiple substance use in sixth, ninth and twelfth graders in a survey of 122,824 students in Minnesota (Harrison, Fulkerson and Beebe, 1997). Relative risks ranged from three times for males and females in grade twelve, to 15 times for males in grade six. A combination of physical and sexual abuse increased the range of risk ratios to between 6.7 (female sixth graders) and 33.0 (male ninth graders).

College women who reported child sexual abuse were far more likely to report hard-substance use and higher levels of use of hard substances, than controls, with no differences in the self-reported levels of alcohol or marijuana consumption (Johnsen and Harlow, 1996). In a community study, Wilsnack, Vogeltanz, Klassen and Harris (1997) found that women with a history of child sexual abuse were more likely to report alcohol-related problems and a higher lifetime use of psychoactive and illicit drugs. In contrast, the findings of Mullen, Martin et al. (1993), showed no significant differences in heavy drinking levels between abused and nonabused women in a large community study. They did find, however, that abused women who had experienced intercourse had higher rates of alcohol use than nonabused controls. More abused women than controls also admitted to being drug dependent.

Cross sectional studies with young people have indicated a relationship between having a history of child sexual abuse and the use of illicit drugs amongst high-risk youth in detention centres (Dembo, Williams, et al., 1989) and patients in psychiatric hospitals (McClellan, Adams, et al., 1995). However, in the latter study, child sexual abuse was found to be correlated with other forms of child abuse and neglect, suggesting that it may be an interaction of factors which were associated with later substance abuse.

2.11.1 Mediators and predictors of drug use

Other research has also shown that child sexual abuse alone is not a risk factor for alcohol abuse in women. Rather, regression modelling showed that increased risk of alcohol abuse was predicted by child sexual abuse in the presence of family, parenting, demographic and sexuality variables, and a number of sexual abuse interaction variables in a community sample of women (Fleming, Mullen et al., 1998). In a community sample of young people in New Zealand, Lynskey and Fergusson (1997) examined protective factors for adjustment difficulties which included alcohol and other substance abuse/dependence. They found that after taking into account affiliations with delinquent or substance abusing peers and levels of paternal care, child sexual abuse was not a significant predictor of adjustment difficulties at age 18.

Family variables appear to be important in the genesis of substance abuse in young people and adults with a history of child sexual abuse. One model has proposed that substance abuse is intergenerational, and that substance abusing parents produce offspring who are substance abusers via child abuse and neglect, reduced family functioning, and mediated by adult abuse and neglect (Sheridan, 1995). Unfortunately this model was tested using a series of correlations and not path

analysis or multivariate modelling so the predictive pathways between variables were not able to be elucidated.

Substance abusers have commonly reported that they abuse drugs or alcohol to block out painful feelings or memories of events, to fit in with their friends, as a means of tension reduction or because they are simply unable to cease using the substance (Sheridan, 1995). These reasons reflect theories of drug use as self-medication, resulting from social conformity and as the product of a disease (Sheridan, 1995). It has also been theorised that self-derogation mediates the effect of sexual and physical abuse on illicit drug use (Dembo et al., 1989).

2.12 Eating Disorders

Severe dieting can be a feature of eating disorders such as anorexia nervosa, and bingeing is part of a cluster of symptoms of bulimia nervosa along with other symptoms of disturbed eating and body image (American Psychiatric Association, 1994). Bulimia nervosa has been divided into a purging type where the person abuses laxatives, diuretics or enemas or self-induces vomiting, and a non-purging type where they instead fast or exercise excessively (American Psychiatric Association, 1994). Similarly, anorexia nervosa has been divided into restricting and binge-eating/purging types (American Psychiatric Association, 1994).

There have been few well designed studies of the relationship between sexual abuse and eating disorders in adolescents. One such study drew subjects, girls aged 14 to 18 years, from the normal community and from child sexual abuse treatment centres (Moyer, DiPietro, Berkowitz and Stunkard, 1997). Sexually abused young people had significantly higher binge eating scores than controls, but significant predictors of binge eating in a multivariate analysis were depression, weight satisfaction and Body Mass Index (BMI) - but not sexual abuse. Analysis was hampered by the fact that binge eating scores increased with body weight in the controls and the relationship was weak but significant. This would indicate that analysis should perhaps not have included BMI, and since models were adjusted for BMI, the exclusion of BMI from the model may have permitted sexual abuse to be a significant predictor of binge eating.

In research on the relationship between child sexual abuse and eating disorders in adults, methodological problems have arisen. Some studies have used clinical samples and reported the prevalence of child sexual abuse within the sample without comparing it to that in a normal population (e.g. Palmer, Oppenheimer et al., 1990; Sullivan, Bulik, Carter and Joyce, 1995). Other

work has compared clinical samples with clinical controls who were diagnosed with disorders other than those which were related to eating difficulties. In one study, for example, the clinical control group had higher levels of child sexual abuse than the eating disordered group (Palmer and Oppenheimer, 1992), a difference possibly explained by the relationship of child sexual abuse to other psychiatric disorders which have been discussed earlier. In 134 female psychiatric or substance abuse unit inpatients, 69% of women (mean age = 34 years) reported a history of child sexual abuse (Zlotnick, Hohlstein et al., 1996). Although the abused and nonabused patients did not differ in terms of bulimia, they did differ significantly in terms of drive for thinness and other factors. Others have also observed that the relationship between child sexual abuse and eating disorders is representative of that between sexual abuse and psychiatric disorders in general (Welch and Fairburn, 1994).

A number of well designed studies, however, have successfully established child sexual abuse as a significant risk factor for bulimic behaviour in adult women. In a group of college women aged 18 to 22 years, sexually abused women had significantly higher scores on a standardised eating disorders questionnaire than nonabused women (Smolak, Levine and Sullins, 1990). In one large national survey of women over 21 years, binge eating was twice as common in sexually abused women as in nonabused women even after controlling for age, ethnicity and parental education (Wonderlich, Wilsnack, Wilsnack and Harris, 1996).

Child sexual abuse appears to be associated with specific types of eating disorders although results must be interpreted with some caution due to small sample sizes. In a review of the literature, Wonderlich, Brewerton et al. (1997) observed that child sexual abuse was more common among bulimic patients than among anorexic patients. For example, Pribor and Dinwiddie (1992) found that 12 (23%) of the incest victims in their sample had been diagnosed with bulimia, compared to 1 (2%) patient with anorexia, a difference which was found to be significant on later analysis by Wonderlich et al. (1997). Sexual abuse and frequent parental discord were also found to be more strongly associated with purging forms of bulimia rather than non-purging types in one study, although of the 62 women with bulimia in that study, only 17 had the purging type (Garfinkel, Lin et al., 1996). Although these results were statistically significant, they were based on small sample sizes so interpretation was limited.

2.12.1 Mediators and predictors of eating disorders

Predictors of disordered eating in sexually abused people have rarely been addressed. Characteristics of the abuse have not been found to be significantly related to EDI (Eating Disorder Inventory) scores in abused women, although family support, particularly parental reliability, did predict EDI scores (Smolak, Levine and Sullins, 1990). However, loss of control appears to be a key element in the development of eating disorders. Brown (1997) noted that low self-esteem, a negative attitude towards the body, a sense of shame and guilt and feelings of ineffectiveness and inadequacy are present in many sexually abused people and in eating disordered patients. Consistent with these reports of feelings of ineffectiveness, Waller (1998) reported a more external locus of control in eating disordered women who reported sexual abuse compared to those who did not report abuse.

2.13 Other Mediating Factors

A number of factors which mediate outcomes in sexually abused children have been discussed in regard to the emotional and behavioural sequelae of sexual abuse. Other variables which may influence children's outcomes are revictimisation and therapeutic and legal intervention, such as prosecution of the offender and victims compensation.

2.13.1 Revictimisation

It has been shown that experiencing one form of abuse places children at risk of other types of abuse, for example, in one study, over 90% of abused children have experienced more than one type of abuse (McGee, Wolfe et al., 1995).

2.13.1.1 Rates of Revictimisation

Rates of revictimisation of maltreated children vary across studies. In a study of 24,507 children with substantiated abuse/neglect who were monitored up to four years after the initial maltreatment incident, 9.3% of the children were reported as having been abused or neglected in the follow-up period (Fryer and Miyoshi, 1994). For these children the risk of reabuse continued to be greater than the risk of abuse in the general population and was greatest immediately following the first notified abuse/neglect incident. For example, of those reabused/neglected children, 24% were revictimised in the first month following the index event. Bentovim, Boston and Van Elburg (1987) followed up families who were referred to a treatment program for sexual abuse and found that 16% of children had experienced revictimisation and in 15% of children, it was unclear whether children had been reabused or not. In a national random sample of 2,000 American

children aged 10-16 years, (Boney-McCoy and Finkelhor, 1995) found that 39% of children who had histories of prior sexual victimisation had been sexually abused in the last year. Prior physical abuse or neglect was present in 12% of a sample of sexually abused children presenting to several U.S. teaching hospitals (Paradise, Rose et al., 1994).

2.13.1.2 *Predictors of Revictimisation*

There have been few prospective long-term studies of the predictors of reabuse in sexually abused children. In one study of 927 introductory psychology students, child sexual abuse was strongly associated with adolescent and adult sexual abuse (Gidycz, Coble et al., 1993). However, the study findings were compromised by the definition of adult abuse as that occurring over a nine week period commencing from intake to the project, the use of retrospective self-reports and the use of a convenient college sample.

In their prospective study, Fryer and Miyoshi (1994) found that younger children and females were more vulnerable to further abuse/neglect, and neglected children were more at risk of further maltreatment than sexually or physically abused children. Fergusson, Horwood and Lynskey (1997) found that child sexual abuse was related to early onset sexual activity, which was then related to a greater risk of re-victimisation, particularly rape or attempted rape. After adjustment for childhood and family variables, the relationship between child sexual abuse and young people having multiple partners, unprotected intercourse, consensual sexual intercourse before age 16 and experiencing rape/attempted rape remained significant.

Boney-McCoy and Finkelhor (1995) observed that prior sexual assault, physical assault *by* a family member and physical assault *of* a family member predicted child sexual abuse. This was found to be the case when child's gender, race, age, geographic location, quality of relationship with parents and level of community violence were taken into account.

2.13.1.3 *Grooming*

A model describing the process by which offenders come to sexually abuse children has been proposed by Finkelhor (1984). The model outlines four preconditions which must occur before sexual abuse is able to be perpetrated. These preconditions are (1) the potential offender must be motivated to sexually abuse a child (2) the potential offender must conquer internal inhibitions from abusing a child (3) the potential offender must overcome external obstacles to abusing the child and (4) the potential offender must reduce or eliminate the child's resistance to the sexual

abuse, a process known as grooming. It is known that the majority of offenders gradually increase sexual touching of children (Elliott, Browne and Kilcoyne, 1995), resulting in a slow process of desensitisation. It is likely that the process by which a perpetrator “grooms” a child to be their victim may be the same process which sets the scene for further abuse by that perpetrator in the future. For example, after one perpetrator grooms a child and if the child encounters another perpetrator, that next perpetrator would be more easily able to abuse the child because the fourth stage of “grooming” has already taken place. Work on sexual offenders has shown that they often have long histories of sexual offences against children (Elliott, Browne and Kilcoyne, 1995), with each offender having many more victims than previously thought. For example, paedophiles molesting young boys were found to have committed an average of 240 crimes each (Abel, Becker et al., 1987).

2.13.2 Therapeutic Intervention

Finkelhor and Berliner (1995) observed that there had not been a randomised control trial of sexual abuse treatment with a sufficiently large sample. They also noted that research of treatment is plagued with problems due to: the wide range of symptomatology which would need to be measured, the existence of asymptomatic abused children, “sleeper effects” where symptoms develop long after the abuse has ceased, the presence of a myriad of mediating family and parental variables and the type of therapy chosen for study.

Therapy should be “ameliorative and preventative” (Finkelhor and Berliner, 1995) in that it should lead to an improvement of behavioural and emotional difficulties and should contribute towards preventing further abuse. Of the few studies of treatment, sample sizes have seldom been larger than 20. In one study of 86 sexually abused pre-school children, cognitive-behavioural therapy adapted specifically for sexually abused pre-school children was found to be significantly more effective than nondirective supportive therapy (Cohen and Mannarino, 1996). In another study of the effectiveness of two types of treatment, sexually abused children’s behaviour and depression scores showed improvement 12 months after onset of therapy for both types of therapy (Hyde, Bentovim and Monck, 1995). However, there were no significant differences between the two types, family network meetings or family network meetings plus group work, with regard to children’s or mothers’ outcomes. Other work has found a relationship between duration of therapy and reductions in symptomatology (Lanktree and Briere, 1995) and meta-analysis has suggested that group work with sexually abused children may also be effective (Reeker, Ensing and Elliott, 1997).

2.13.3 Legal Intervention

Findings vary regarding the effects of legal intervention on sexually abused children. Oates and Tong (1987) found persistent behaviour problems and poor school work in children whose cases had gone through court, although in an 18 month follow-up of sexually abused young people, Oates, O'Toole et al. (1994) found that the effects of the court process were transient. Runyan, Everson et al. (1988), in a study of the impact on sexually abused children of criminal proceedings against perpetrators, concluded that while testimony in a children's court may be of benefit to the child, lengthy criminal proceedings were detrimental to the child's psychological health. In NSW, criminal prosecution of an offender is a separate matter from compensation for being the victim of a crime.

2.13.4 Victims Compensation

Victims' compensation awards are remedial in nature (Lombard, 1995) and may be viewed as an expression of sympathy and concern by the state for victims of criminal acts (Davies, 1991). Compensation should be conducive to victims having a more positive view of their future (Walsh, 1994). A description of the process of lodging a claim in the Australian state of New South Wales (NSW) is given below for the period during which study subjects could lodge applications, followed by a summary of research to date and arguments for changes to the system of compensation.

2.13.4.1 Applications for Compensation

In NSW, a Magistrate of the Victims Compensation Tribunal (VCT) decides on claims (Section 4, *Victims Compensation Act 1987*). "Primary victims" can receive compensation for physical injuries, nervous shock, mental illness or disorder, pregnancy or any combination of these suffered as a direct result of an act of violence (Sections 3 and 10, *Victims Compensation Act 1987*). "Secondary victims", such as parents of injured children, may also lodge claims if they are able to prove to the VCT that they were injured as a result of witnessing or becoming aware of a primary victim's injuries (Section 10, *Victims Compensation Act 1987*). Secondary victims can only lodge claims for awards if their primary victims are eligible for compensation awards (Common Law Editors, 1995).

In the NSW, under the *Victims Compensation Act 1987*, victims who were not satisfied with the determination of their application, could appeal to the District Court, and if victims believed the

District Court had erred in law, they could then appeal to the Supreme Court (Davies, 1991; Lombard, 1995). A new *Victims Compensation Act* was passed in 1996, but because claims examined in the course of this study were lodged in NSW prior to 1996, the appropriate sections of the previous Act have been discussed and referenced here.

There are three main categories of awards: **injury** (pain, suffering and loss of enjoyment of life), **expenses** (past and future expenses and loss of earnings) and **loss of personal effects** worn or carried at the time of the act of violence (Common Law Editor, 1995). For example, expenses can be incurred through medical treatment (Scutt, 1990, cited case of *Ms T. v Crimes Compensation Tribunal of Victoria* (1989) 3 V.A.R. 132 at 134-135, 136), moving house to avoid an area associated with the crime (Bailey, 1991 cited case (1987) 89 F.L.R. 64) and having security devices installed to improve the victims' sense of personal safety and personal agency (Scutt, 1990, cited case of *Ms T. v Crimes Compensation Tribunal of Victoria* (1989) 3 V.A.R. 132 at 134-135, 136; Whittaker, 1989 cited case of *Sharman v Evans* 138 CLR 563). Claims must not be able to be made elsewhere, such as through private insurance, Medicare, Workcover or civil claims; separate applications must be made for each incident (Lombard, 1995). There is provision, however, for cases where a mental illness or disorder arises from the cumulative effects of a series of related criminal acts occurring over many years (Lombard, 1995).

To be eligible for an award, there must be proof that an act of violence has occurred, although an offender does not need to have been apprehended or convicted as a result (Lombard, 1995). The standard of proof required is based on the balance of probabilities, as it is for civil claims, so the applicant only needs to prove that it was more likely than not that they were injured as a result of a given act of violence (Davies, 1991). It must be clear from police files and medical documentation submitted to the VCT that an act of violence occurred and that the person suffered a recognisable injury and/or mental disorder or illness as a direct result (Lombard, 1995). The offence must also have been reported to the police within a reasonable time, and the victim must have assisted the police in their investigation (Crawford, 1987; Lombard, 1995). In the case of sexual assaults of children, the nature of the offences and the psychological effects of the assaults may be legitimate reasons for not reporting the crimes to the police soon after they were committed (Lombard, 1995).

The Victims Compensation system is not an adversarial system and normal civil claim principles do not apply (Garkawe, 1993). To minimise their distress, victims are not required to appear in person, although they can apply to do so if they wish - the Victims Compensation system is

designed so that hearings or determinations are in a very informal setting (Davis, 1994; Garkawe, 1993). Victims can elect to be represented by another person such as a friend, relative or solicitor, or the application can be done on paper only (Garkawe, 1993). Legal practitioners cannot charge applicants directly for their services, but must recover costs from the VCT, and legal costs are capped. Matters can be “fast-tracked” only when they are determined on written documentation and if the application form is completed correctly and all supporting documentation is provided (Bartley, 1990; Garkawe, 1993; Walsh, 1994).

Awards are reduced or claims are dismissed if it is evident that the victim contributed in some way to the offence (Section 20, *Victims Compensation Act 1987*). When deciding claims, the VCT also takes into consideration whether an offender may benefit from the award (Section 22, *Victims Compensation Act 1987*). In NSW, claims must be lodged within 2 years of the date of the offence, although there is provision for late claims, provided claimants submit an application for "leave to apply out of time" (Common Law Editor, 1995). This is of particular relevance to child sexual assault cases, where the victim may have been too young at the time of the offence to lodge a claim themselves, and their parent(s) or guardian did not proceed with an application on their behalf. Other aspects of child sexual abuse must also be taken into consideration so that applications for leave to apply out of time by adults assaulted as children may be accepted. Because memories of child sexual abuse can be repressed, and because of the secrecy, shame and self-blaming which occurs in victims, the crimes may not be reported until many years later when victims are receiving therapy (Cabassi and George, 1993). These reasons should be viewed as “reasonable explanations” for delays in reporting and should not be seen as “special circumstances” as they are common to many child sexual assault victims (Cabassi and George, 1993).

2.13.4.2 *Research To Date*

There have been no previous studies which have focused solely upon child sexual assault claims lodged with the Victims Compensation Tribunal. However, in 1992, the Attorney-General reviewed the implementation and administration of the *Victims Compensation Act (1987)* and as part of that review, a profile of claims lodged with the Victims Compensation Tribunal from 1988 to 1992 was carried out (Salmelainen, 1995). The review showed that approximately 92% of all claims lodged with the Tribunal were awarded compensation and 85.9% of claims were lodged within 2 years of the act of violence. Child indecent assault claims had the longest time period from act of violence to registration of the claim, with the median time span being 31.5 months and 0.7% of claims were lodged more than 10 years after the act of violence. 64.8% of claims were

awarded in cases where offenders were convicted or alleged offenders were arrested and court action was pending. For primary victims, adult sexual assault victims received the highest mean award (\$21,298) and child sexual assault victims received the second highest mean award (\$15,618). The overall mean award across all types of crimes was \$8,612. After bruising and lacerations, psychological injuries were the third most common injuries, sustained by 39.1% of all victims. Victims who only cited psychological injuries made up 19.1% of all victims, although the most common type of injury listed as the only type sustained was psychological injury. There were no significant differences between mean awards for those victims who appealed (3.5% of applicants) and those who did not. The report did not include the type of evidence used to support claims, the results of appeals and reasons for determinations. Furthermore, because these reports were profiles of claims, the relationship between the size of awards and their ability to predict later emotional and behavioural outcomes in sexually abused children was not examined.

2.14 Project Overview

This study compares depression, self-esteem, anxiety, behaviour problems, criminal activity, drug and alcohol abuse, running away, self-injury, suicidal ideation and attempts, eating problems, hopefulness, despair, negative attributional style and revictimisation between a group of sexually abused children five years after diagnosis and initial assessment, and a group of their non-abused peers. The relative impact of the abuse, psychological and behavioural states at study intake, demographic variables, family functioning, mother's psychological distress and intervening life events were taken into account. Contact with the Department of Community Services, the NSW government's child abuse and neglect reporting agency, was also examined, as well as access to Victims Compensation. The aims and hypotheses of the research are as follows:

2.15 Aims

1. To compare sexually abused young people and controls who are not known to have been abused in terms of the following: depression, self-esteem, anxiety, behaviour problems, self-reported criminal activity, drug and alcohol abuse, running away, self-injury, suicidal ideation and attempts, eating problems, hopefulness, despair, negative attributional style and history of revictimisation at five year review; official criminal records, Department of Community Services involvement and Victims Compensation claims.

2. To predict children's outcomes at five year follow-up from information available at this five year review and from when children presented to Child Protection Units for sexual abuse i.e. at study intake.

2.16 Hypotheses

1. Psychological state: Sexually abused young people will have significantly poorer scores than controls for sadness/depression, self-esteem, anxiety, hopefulness, despair and attributional style.
2. Behaviour: Sexually abused young people will be more likely than nonabused controls to have poorer problem behaviour scores, have a hazardous level of alcohol intake, use drugs, diet, binge, self-induce vomiting, run away, self-injure and think about and attempt suicide.
3. There will be a higher incidence of criminal convictions, particularly for crimes which are violent and sexual in nature, in adolescents and young adults who were sexually abused as children compared with controls and with the general population of this age.
4. Mothers of sexually abused young people will be more psychologically distressed at final follow-up and families of sexually abused young people will function more poorly than control families.
5. Those young people who are more disturbed five years after disclosure of sexual abuse will be from families with poorer family functioning scores.
6. Baseline data collected at the time of abuse disclosure such as family demographics and characteristics of the sexual abuse will predict depression, self-esteem, anxiety, hopefulness, despair, attributional style, behaviour, criminal activity, bingeing, self-induced vomiting, self-injury, suicidal ideation and attempts.
7. Better psychological functioning will correlate with receipt of therapy for sexual abuse.
8. Sexually abused young people who received therapy are more likely to receive Victims' Compensation Tribunal (VCT) awards.

9. The size of Victims' Compensation Tribunal awards will be related to the severity of the abuse.
10. Young people for whom the Department of Community Services have received further notifications will have poorer scores on the psychological and behavioural measures than other sexually abused young people.
11. Young people who were the subject of more than one notification to the Department of Community Services will be more likely to have criminal records.

2.17 Summary

Previous work has shown that child sexual abuse is significantly related to depression, self esteem, anxiety, behaviour, criminal activity, drug use, running away, self-injury, suicidal ideation and attempts, and eating problems. Many of these studies did not take into account potential mediators, did not make use of control groups and/or were based on adolescent or adult retrospective data. Follow-ups were also frequently short-term. No research to date has examined the relationship between child sexual abuse and hopefulness and despair. Similarly, there has been very little work in the area of attributional style and sexual abuse, with one uncontrolled study focussing on the association between attributional style and self-blame in sexually abused children. Previous work has however, identified a link between child sexual abuse and revictimisation.

Potential mediators or predictors have been identified as demographic variables, mother and parent factors, characteristics of the abuse, life events and pre-existing difficulties. Demographic confounding variables were age, gender, ethnicity and socio-economic status. Mother's mental health was also an important factor; as were family functioning, the quality of the parent-child relationship; the young person's perceived level of parental support, care, attachment and nurturance; parental reliability, discord, separation and loss, caregiver changes; and changes in living situation. Other potential mediators were preabuse developmental and psychiatric difficulties, negative life events, emotional abuse, parental domestic violence, young people's drug or alcohol abuse or dependence. Influential abuse related variables were frequency and duration of the abuse, age of onset, the presence of coercion, re-victimisation, abuse severity, experiencing multiple abusive events, the relationship between the perpetrator and the child, self-blame and aspects of disclosure. Protective factors were higher levels of paternal care during childhood, together with fewer affiliations with delinquent or substance abusing peers. Other mediating

factors may include revictimisation, therapeutic intervention, legal intervention and victim compensation.

Chapter 3

Method

3. Method

This thesis describes the end-point of a long-term follow-up project. Children and (non-offending) parents were assessed at study intake (Stern, Lynch et al., 1995) and were followed up at 18 months after intake (Oates, O'Toole et al., 1994) and again after five years. The final, five year follow-up study is the basis of this thesis. This chapter describes the selection of subjects, instruments used in this project, the research design, collection of data and analyses. The purposes of this study were

- (1) to compare psychological and behavioural outcomes at five year follow-up in a group of sexually abused young people with those in a group of their nonabused peers whilst taking into account potential confounding variables and
- (2) to identify variables from intake data and five year follow-up data which were significant predictors of outcome at five year follow-up.

3.1.1 Selection of Subjects

Approval to conduct the study was obtained from the Ethics Committee of the Royal Alexandra Hospital for Children and the University of Sydney Human Ethics Committee.

3.1.1 Abused Group

The abused group comprised 84 sexually abused children (62 girls and 22 boys) who presented to the Child Protection Units of two Sydney metropolitan hospitals in 1988-1990. This sample has been described previously and differences between participants and non-participants in this first phase of the study have been elucidated in earlier publications (Lynch, Stern, Oates and O'Toole, 1993; Stern, Lynch et al., 1995). These children were aged between five and 15 years at the time of presentation and resided in the Sydney metropolitan area. All had experienced some form of physical contact with the abuser and the hospital assessment teams were confident that sexual abuse had occurred based on physical evidence and/or the child being able to give a clear and consistent description of the abuse. There was no restriction on the age of the abuser, although cases that involved consensual sexual activity between peers were not included in the study. Children with developmental delay were also excluded, as they would not have been able to complete the age-appropriate measures at 18 month and five year follow-ups.

3.1.2 Nonabused Group

The comparison group comprised 84 age and gender matched children, not known to have been sexually abused and free from developmental delay. The nonabused group was drawn by stratified random sampling from state and Catholic schools in the Sydney metropolitan area which were

within a 20 km radius of The Royal Alexandra Hospital for Children, Camperdown, Sydney, Australia (Lynch et al., 1993).

3.2 Instruments

3.2.1 Young People

The instruments completed by young people are listed in Table 3.1 and are described in detail in section 3.2.4. Depression, self-esteem, anxiety, hope, despair, attributional style, behaviour, life events and parent-child relationships were assessed using standardised instruments. Questionnaires were developed for the project to measure criminal behaviour, drug use, dieting, bingeing, vomiting, running away, self-injury and suicide attempts (Appendices 1 and 2). Only young people aged over 13 years were asked about dieting, bingeing and vomiting because eating disorders generally begin at this age (Abraham and Llewellyn-Jones, 1987). A measure of recent suicidal ideation was obtained for the last two weeks prior to follow-up from all subjects' responses to the relevant questions on the Beck and the Children's Depression Inventories. A structured interview (Appendix 3) was conducted to gain information about living situation, education, therapeutic interventions, reabuse and court outcomes.

Parents and teachers also completed standardised questionnaires on young people's behaviour. Official records were examined for further notifications of young people for child abuse/neglect, young people's juvenile convictions and compensation they received for the index sexual abuse event

3.2.2 Parents

Measures completed by parents are listed in Table 3.2 and are described in detail in section 3.2.4. Together with ratings of their children's behaviour, parents completed standardised measures of their own mental health and family functioning. A structured interview (Appendix 4) was conducted to gain information about their child's living situation, education, therapeutic interventions, reabuse and court outcomes.

At intake to the study, social workers in the Child Protection Unit rated family functioning and the quality of the mother-child relationship on separate five-point Likert scales.

At intake to the project, researchers used parents' occupations to rate the family's socio-economic status (SES) as high, medium or low. If young people were not in contact with their parents at five

year follow-up, their own occupations at that time were used to determine SES. The “ANU2”, developed by the Australian National University, was used to assign SES based on prestige ratings of occupations from established Australian norms (Broom, Duncan-Jones, Lancaster Jones and McDonnell, 1977).

3.2.3 Continuity from earlier project stages

Depression, self-esteem, behaviour, family functioning, mother's mental health and life-events were all measured at intake, 18 month follow-up and five year follow-up. For the purposes of comparability with scores from previous stages of the project, the measures of life-events and behaviour were the same as those used earlier in the project for all subjects. Younger subjects completed the same measures of self-esteem and depression as were used previously. At five year follow-up, new measures had to be chosen for children who were above the age-ranges recommended for use of the instruments used to measure depression and self-esteem at intake and 18 month follow-up. Instruments to measure anxiety, attributional style, hope and despair were additions to the test battery at five year follow-up.

Table 3.1: Instruments completed by young people

Variable	Instrument	
	Ages 9-15 years	Ages 16 + years
Depression	Children's Depression Inventory (CDI)	Beck Depression Inventory (BDI)
Self-esteem	Piers-Harris Children's Self-Concept Scale	Coopersmith Self-Esteem Inventory
Anxiety	Revised Children's Manifest Anxiety Scale	Revised Children's Manifest Anxiety Scale
Hope and despair	Not administered	Hunter Opinions and Personal Expectations Scale
Attributional style	Children's Attributional Style Questionnaire	Not administered
Behaviour	Youth Self-Report	Youth Self-Report
Criminal activity, drug use, running away, self-injury, suicide attempts, dieting, bingeing, vomiting	Project developed questionnaire	Project developed questionnaire
Recent suicidal ideation	Specific questions taken from CDI	Specific questions taken from BDI
Parent-child relationship	Parental Bonding Instrument	Young people over 16 years
Life events	Combination of 2 existing scales	All young people

Table 3.2: Instruments completed by parents

Variable	Instrument
Young person's behaviour	Child Behaviour Checklist
Family functioning	Family Assessment Device
General mental health	General Health Questionnaire

3.2.4 Description of Instruments

3.2.4.1 *Depression or Sadness*

Depression or sadness in young people aged 16 years and over was measured with the revised Beck Depression Inventory (BDI; Beck, Rush, Shaw and Emery, 1979) and with the Children's Depression Inventory (CDI; Kovacs, 1980, 1983) in children under 16 years. Both are self-report questionnaires. Higher scores denote greater sadness or depression.

The BDI was chosen for the protocol over similar instruments as it is commonly used, it is an upwards extension of the CDI, and it also has reports of good reliability. Cronbach alphas of .86 for the BDI have been reported in adult psychiatric samples and .81 in adult non-psychiatric samples (Beck, Steer and Garbin, 1988), and .82 for a paediatric-medical sample (Kovacs, 1985).

3.2.4.2 *Self-esteem*

At five year follow-up, self-esteem was measured using the Piers-Harris Children's Self-Concept Scale (Piers and Harris, 1984) for children under 16 years, and the Coopersmith Self-Esteem Inventory for young people 16 years and over (Adult form; Coopersmith, 1981). Both instruments are self-report questionnaires, with higher scores indicating higher self-esteem. The Piers-Harris Children's Self-Concept Scale was developed for children aged 8-18 years and has been reported to have high internal consistency with Cronbach alpha reported ranging from .87 to .94 in a sample of Australian school children (Amato, 1984). The Piers-Harris Children's Self-Concept Scale was used at intake and 18 month follow-up for this age group and the McDaniel-Piers Young Children's Self-Concept Scale (McDaniel and Piers, 1973) was used with younger children. The latter is a downward extension of the Piers-Harris Self-Concept Scale for children 6-8 years old. McDaniel and Leddick (1978) have reported good reliability (Cronbach alpha = .72 to .92).

At intake and 18 month follow-up, the youngest children in the study were asked to complete a self-esteem measure, the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter and Pike, 1984), a self-report measure designed to assess 4-7 year old children's perception of their competence and social acceptance. The authors have demonstrated

good psychometric support for its reliability (mid to high 80s) and validity and the scale has been favourably reviewed (Hughes, 1984).

The Coopersmith Self-Esteem Inventory examines personal, family, peer and work areas of self-esteem and is suitable for use by people over 15 years. Because the adult form of the Coopersmith Self-Esteem Inventory does not refer specifically to school-work, it was deemed to be particularly appropriate for the school-aged children who were not attending, for young people in a tertiary education setting and for those young people who, by this stage of their lives, were at home caring for their own children. This measure has been reported to have high internal consistency with Cronbach alpha reported as ranging from .78 to .85 (Coopersmith, 1981).

3.2.4.3 *Anxiety*

The Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds and Richmond, 1978) is a 37-item self-report questionnaire which is able to be used across all age groups and which incorporates a lie scale. Higher scores indicate greater anxiety levels (Reynolds and Richmond, 1978). The RCMAS has been reported to have high internal consistency (Cronbach alpha = .85).

3.2.4.4 *Hope and Despair*

Because this was the last time the young people were to be assessed, it was hoped that some information could be gained regarding their expectations for the future. Young people aged 16 and over completed the Hunter Opinions and Personal Expectations Scale (HOPES) because this age range was in accordance with the age range of the normative sample (Nunn, Lewin, Walton and Carr, 1996). Test-retest reliability for the HOPES has been reported as ranging from .66 to .71.

3.2.4.5 *Attributional Style*

The Children's Attributional Style Questionnaire (CASQ) was administered to children under 16 years to assess the style children used to explain the occurrence of positive and negative events (Seligman, Peterson, Kaslow, Tannenbaum, Alloy and Abramson, 1984). Composite scores were calculated for both positive and negative events, with higher scores for negative events reflecting more pessimistic explanations, and higher scores for positive events signifying more optimistic explanations (Nolen-Hoeksema, Seligman and Girgus, 1989). While it has modest internal consistency ratings (Cronbach alpha ranges from .49 to .67 for positive events, and from .51 to .68 for negative events), the CASQ has good predictive validity, particularly for depression (Nolen-Hoeksema, Seligman and Girgus, 1986; Seligman et al., 1984).

3.2.4.6 *Behaviour*

Young people who were aged 11 to 18 completed the Youth Self-Report (YSR; Achenbach, 1991). The Child Behaviour Checklist (CBCL; Achenbach and Edelbrock, 1991a) was completed by parents to assess their children's behaviour where children were 18 years old or younger and still living with a parent up to at least six months previously. The Teacher's Report Form (TRF; Achenbach and Edelbrock, 1991b) was completed by teachers. Teachers were not aware of the purpose of the study and were not informed that the child had been sexually abused or that the child was a member of the nonabused comparison group.

The YSR, CBCL and TRF each contain three main "T-scores" for total, internalising and externalising scores. Scores are also available for eight subscales of behaviour which are withdrawn, somatic complaints, anxious/depressed, social problems, thought problems, attention problems, delinquent behaviour and aggressive behaviour. Using the cut-point of ≥ 60 to exclude young people in the borderline ranges for the various behaviour scores, scores were categorised as clinical or nonclinical (Achenbach and Edelbrock, 1991a).

In boys aged 4-11 years, Cronbach alphas have been reported as .68 to .92 for the eight subscales, .90 for internalising, .93 for externalising and .96 for the total problem score on the parents' Child Behaviour Checklist (Achenbach and Edelbrock, 1991a). Scores for girls and boys of other age groups have yielded similar reliability results (Achenbach and Edelbrock, 1991a). Detailed scores for the three overall scales and the eight sub-scales can be easily calculated with a computer package.

3.2.4.7 *Parent-child relationships*

It was desirable to examine relationships between young people and their parents. The Parental Bonding Instrument (PBI; Parker, Tupling and Brown, 1979) was completed by young people 16 years and over. It asks subjects to report on the parenting they received in the first 16 years of their lives.

The PBI is a self-report questionnaire that assesses perceptions of parental relationships and examines relationships with mothers and fathers separately. For adults, there are two subscales: care and protection (Parker, Tupling and Brown, 1979). For adolescents, three subscales have been identified: care, protection in the personal realm and protection in the social realm (Cubis, Lewin

and Dawes, 1989). Scores for protection in the personal realm express how much the young person feels over-protected with regard to being dominated and treated as though they were a child. Scores in the social realm reflect the degree to which the young person feels over-protected in that their freedom is restricted. Higher scores in the care subscale and lower scores in the protection subscales are indicative of healthy parent-child relationships. Split-half reliability has been reported to be .88 for the care sub-scale and .74 for the protection sub-scale in a non-clinical sample (Parker, Tupling and Brown, 1979).

3.2.4.8 *Life Events*

All children completed a checklist of life events that had occurred in the last year. As there is some evidence that free recall of events beyond 12 months can be unreliable in young people (Williams and Uchiyama, 1989), a checklist was used instead of free recall because it was thought that the lists of events would act as cues and would therefore aid young people in remembering events. The checklists also took far less time to complete than interviews, which was an important consideration given the lengthy protocol already in place. Where children were quite young (i.e. 9-10 years), parents also completed life events checklists and responses from the two lists were combined when scoring.

It was important to take into account the effects of recent negative life events which themselves may have affected the children's outcomes. Negative life events may have mediated some of the effects of the child sexual abuse. At 18 month follow-up, the list of items was compiled from checklists developed by Newcomb, Huba and Bentler (1981) and by Johnson and McCutcheon (1980). These checklists were developed for use in adolescent populations. Some of the items were omitted for this sexual abuse study as they were deemed to be inappropriate for a population of sexually abused children, for example, "had a gay experience", "lost virginity" and "got/gave sexually transmitted disease". At five year follow-up, the wording of various items was also changed to make items more easily understood by Australian young people and some items were modified to make them more appropriate, for example, some of the school aged young people would have been in the full time work force. Thus, "got poor grades in school" was changed to "getting bad marks at school or getting told off by my boss". The item "loss of a pet" was added to the pool of items at five year follow-up as this was not offered by the existing checklists.

Children rated each event according to whether it made them feel happy or unhappy, and the negative life events (for example, family conflict, illness, loss of friends or pets) were summed to

provide a total score. Thus the more negative life events which were experienced, the greater the life events score.

3.2.4.9 *Family Functioning*

Mothers' perceptions of family functioning were measured using the McMaster Family Assessment Device (FAD; Epstein, Baldwin and Bishop, 1983). The FAD is a self-report scale which assesses six dimensions of family functioning and includes a general functioning subscale which assesses the overall functioning of the family. The six dimensions of family functioning which the FAD measures are problem solving, communication, roles, affective responsiveness, affective involvement and behaviour control. The FAD has been reported to have high internal consistency, with Cronbach alphas ranging from .72 for roles and behaviour control to .92 for general functioning (Epstein, Baldwin and Bishop, 1983). Parents whose children completed the Parental Bonding Instrument (PBI; Parker, Tupling and Brown, 1979) also completed it based on their own experiences as children.

3.2.4.10 *Mother's mental health*

At five year review, maternal psychological distress or dysfunction was assessed with the General Health Questionnaire (GHQ-28; Goldberg, 1978). This is a widely used self-report measure which has been validated in an Australian population, with correlations between clinical psychiatric ratings of severity and GHQ scores ranging from .73 to .76 (Tennant, 1977). There are four subscales of the GHQ, namely somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. The GHQ performs well in terms of scale validity, with the four subscales contributing to 48% of the total variance (Goldberg and Hillier, 1979).

At intake and 18 month follow-up, the Revised Short Scale Eysenck Personality Questionnaire (EPQ) (Eysenck, Eysenck and Barrett, 1985) was also used to measure the three major dimensions of personality: psychoticism, extroversion/introversion and neuroticism, and contains a lie scale. This is a self-report measure with internal consistency reliability ranging from .68 to .88 for the three subscales (Eysenck and Eysenck, 1975).

3.2.5 Official records

Further notifications of child abuse/neglect, convictions as juveniles and compensation for the index sexual abuse event were also examined. The author signed confidentiality undertakings with the relevant government departments and was subsequently given permission to examine archival records held by the Department of Community Services (DOCS), the Department of Juvenile Justice, the Department of Local Courts Administration and the Victims Compensation Tribunal. The role of each of these departments is briefly described below and the types of data collected are listed.

3.2.5.1 Department of Juvenile Justice

In NSW, children who are arrested for committing crimes are referred to the NSW Department of Juvenile Justice. The role of the NSW Department of Juvenile Justice includes providing young people involved in the juvenile justice system with bail advocacy services, court preparation, background reports to facilitate sentencing, explanations of various court orders and legal rights, orientation briefings when placed in custodial centres, case plans, supervision of compliance with court orders and assistance in returning to the community (Cain, 1995). Australia is bound by the United Nations Convention on the Rights of the Child and by the United Nations Standard Minimum Rules for the Administration of Juvenile Justice and therefore must use custody as a "last resort" measure for children's crimes (Cain, 1995).

In Australia, the age at which legal responsibility begins is 10 years, therefore criminal records for young people over 10 years were examined. Information about types and dates of offences, and court results for crimes committed by the children were obtained from the Department of Juvenile Justice and from archived bench papers held by the Department of Local Courts Administration. Crimes which resulted in a dismissal or a dismissal with a caution were not included as part of the young people's records. Crimes were also categorised as violent and non-violent offences, according to the criteria used by the NSW Department of Juvenile Justice (Cain, 1995). Violent crimes under this definition include homicide, assault causing grievous bodily harm, assault causing actual bodily harm, malicious wounding, kidnapping, assault and robbery, and armed and unarmed robberies.

3.2.5.2 Department of Community Services

The NSW Department of Community Services (DOCS) deals with child protection, foster care, adoption and child care, as well as with support for families, adolescents, the disabled and the

ageing and disaster relief, and the department's Director-General is the official guardian of state wards (NSW Department of Community Services, 1995). Among its duties, DOCS handles notifications of children for various forms of abuse, being involved in the initial investigation and documentation of the abuse; in the State of NSW, it is mandatory to report child abuse and neglect to DOCS. DOCS arranges placements in accommodation programs where necessary and refers individuals and families to other government and non-government services for treatment as appropriate.

From DOCS records, notifications of the child for sexual, physical and emotional abuse or neglect were obtained. These were classified by type and according to whether they occurred prior or subsequent to the sexual abuse event which was the child's entry point into the study. Data were also collected on accommodation placements, other DOCS contact, wardship status and whether the children had been notified as perpetrators of abuse. Owing to differing DOCS policies over the years with regard to management and storage of archival material, some files were unable to be obtained.

3.2.5.3 *Victims Compensation Tribunal (VCT)*

Data about results of victims compensation applications were gathered from archival material held by the Victims Compensation Tribunal. Data included date of registration of claim, whether and when a hearing was held or a determination was made, applications for leave out of time (i.e. permission to apply for compensation more than two years from the date of the offence), amount of compensation awarded, injuries and disabilities brought to the attention of the VCT, numbers and types of offences for which perpetrators were charged, whether perpetrators were convicted and types of sentences, what types of evidence were submitted to the VCT (e.g. whether police statements, reports from DOCS or schools, submissions by victims or parents, medical reports were submitted), types of diagnoses made by clinicians, reasons for acceptance of claims, reasons for dismissals of claims and whether appeals were lodged against decisions by the VCT.

3.3 Data Collection Procedure

3.3.1 Tracing

At five year review, the first step towards data collection was to trace the children and their (non-offending) parent/s and invite them to participate in the final stage of the study, the five year follow-up. The last known address obtained at 18 month follow-up or intake was first used to find subjects. The addresses and telephone numbers of relatives and/or close family friends had also

been recorded at intake to the study and, where required, these people were contacted to obtain subjects' current addresses. No details were disclosed to these people of children's hospital attendance or the reason for wanting to contact them.

Electoral rolls, licensing boards, and the post office facilities of various government departments such as Social Security, Housing, Community Services, Corrective Services and the Department of School Education were also utilised. While they could not reveal the children's addresses, the agencies could forward the letters. By law, the Department of Social Security (DSS) was not permitted to disclose whether the person was receiving benefits or not, but could only acknowledge receipt of the letter to be forwarded.

Letters were sent to all non-offending parents. For children who were now 14 years and over, a separate, personal letter was sent to them. Parents and children were made aware in their letters that they each would be receiving a similar letter. Where the telephone number was not known, a reply form was sent, together with a stamped, self-addressed envelope to assist subjects in responding. Once it was established that the address was correct, it was decided that after three letters, no further contact would be made. Where the address was not confirmed, and where there was no reply and no telephone number could be obtained to follow up, community nurses were called upon to hand deliver letters to ensure that the correct persons received them. These nurses did so without knowing details of the project or the families.

Where people agreed to be interviewed, appointments were scheduled at a time and place which best suited them. This was usually in their own homes. Children and parents were interviewed separately, with one researcher (the author) interviewing the child and another interviewing the parent at the same time in different rooms. In some cases, owing to distance, lack of time or an unwillingness to be interviewed in a face-to-face situation, questionnaires were mailed to children and/or parents. Separate stamped, self-addressed envelopes for the child and the parent were enclosed to facilitate the return of the forms and to maintain confidentiality. Parents and young people were assured that they could discontinue the interview whenever they wished and that they were under no obligation to answer every question.

At no time were rewards offered to subjects for participation, although transport costs were covered where necessary. It was considered important not to pay the child for participation in this sexual abuse study so as not to echo the bribes of some perpetrators in any way.

3.3.2 Piloting

All of the measures completed by the young people, including the semi-structured questionnaire, were piloted on a small sample of subjects from a youth refuge to find out how long the battery of tests took to complete, and to learn of any potential difficulties in filling out the questionnaires. Because of the length of time it took to complete the entire battery of tests (approximately two hours), young people were offered a break half-way through the battery, and were also told that they could take a break at any time if they so wished.

3.3.3 Referrals

At the 18 month and five year follow-up assessments, young people and parents in the sexually abused group and the nonabused group were offered referrals to appropriate treatment agencies where required. While, empirically, this may be viewed as an impurity in the research protocol, it was decided that, ethically, help should be offered to young people and their parents regardless of the effect of treatment on later assessments. The research was conducted with the aim of assisting sexually abused young people in general, and of directly assisting some of the sexually abused sample in the study by offering appropriate referrals.

3.4 Research design

At study intake, this project had a matched pairs design, with abused and nonabused children being matched on age and sex. However, by five year follow-up, a number of subjects were unable to be traced, refused to participate or were deceased. The project thus became a cohort study.

3.5 Analysis

3.5.1 Z-Scores

Scores from both the Coopersmith and the Piers-Harris measures of self-esteem were combined and standardised using Z-scores to be able to compare self-esteem scores across age groups. This was similarly done for the BDI and CDI measures of depression or unhappiness. It was a challenge to produce these Z-scores since no age-appropriate, non-clinical, Australian norms were available for the BDI and the Coopersmith scores. For consistency then, Z-scores were obtained by using the mean and standard deviation of the nonabused group averaged across the three assessment intervals (intake, 18 month follow-up and five year follow-up). At intake, since there were too few subjects in the nonabused group who had completed the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter and Pike, 1984), a self-esteem measure, the normative

population mean was used to obtain more reliable z-scores for this measure. All standardised scores were produced after it was ascertained that there were no significant changes in the scores of the nonabused group over time.

3.5.2 Clinical Cut-points

For self-esteem, one standard deviation below the mean was adopted as a clinical cut-off point to distinguish adequately functioning young people from those with low self-esteem. For depression and anxiety, one standard deviation above the mean was adopted as a clinical cut-off point to distinguish adequately functioning young people from those who were sad or depressed or those who were highly anxious. The cut-off point for depression was approximately equal to 12 on both the CDI and the BDI. These cut-off points are consistent with those used at intake and 18 month follow-up (Oates, O'Toole, Lynch, Stern and Cooney, 1994) and detect children who are "sad" or "mildly depressed" in addition to those who are suffering from severe depression. Hazardous drinking levels were defined as having more than seven standard drinks per week in the case of women and more than 14 drinks per week in the case for men (Jarvis, Tebbutt and Mattick, 1995).

3.5.3 Statistical Procedure

Data were analysed using the Statistical Package for the Social Sciences (1993). "Unadjusted" or univariate analyses were conducted as follows: Pearson's bivariate correlations were used to examine relationships between normally distributed continuous variables; normally distributed mean scores were compared using t-tests, chi-squared analyses and the Mantel-Haenszel test for trend were used to compare proportions among categorical and ordinal data respectively and Analysis of Variance was used to examine relationships between normally distributed continuous outcome variables and ordinal variables. Univariate analyses of data which were not normally distributed were conducted as follows: Spearman's rho (ρ) was used to examine relationships between continuous variables, the Mann-Whitney U test was used to compare medians between groups and the Kruskal-Wallis H was used to examine relationships between continuous and ordinal variables. Subject numbers varied slightly in each analysis owing to missing data. Statistical significance was set at less than .05.

3.5.4 Comparisons Between Abused and Nonabused Groups

"Adjusted" or multivariate analyses were conducted using multiple regression for continuous outcome variables and multiple logistic regression for binary outcome variables. Adjusted regression models were run by forcing variables into the models using the "enter" method (SPSS-

Win, 1993). Regression models were run using the “enter” method to adjust for the main variables together with stepwise regressions on individual variables of interest. These main variables and results of analyses are described in **Chapter 4**.

3.5.5 Development Of Predictive Models

All variables which were significant at the univariate level were submitted to forward stepwise models to establish predictors. Adjusted R^2 was used to compare predictive models for the same outcome variable.

It was desirable to be able to predict outcome in young people at five years from information available only at intake and at presentation to an agency five years after the abuse. Potential predictor variables were grouped according to whether they pertained to (1) demographic, (2) sexual abuse, (3) intake and (4) five year follow-up data. The univariate relationships between the potential predictors and each of the outcome variables were examined. Regression models were then run. **Chapter 5** will describe the potential predictors of outcome and those which were found to be significant in the combined group of nonabused and abused young people. Predictors were identified for those outcome variables which differed significantly between the abused and nonabused groups.

Previous work with this sample only examined predictors of depression, self-esteem and behaviour within the group of sexually abused young people (Tebbutt, Swanston, Oates and O’Toole, 1997). Other outcome variables were also examined in this thesis, and the groups of abused and nonabused young people were combined for analysis. The earlier work (Tebbutt et al., 1997) did not include abuse/neglect notification variables, juvenile crime variables, some variables associated with the nature of the abuse, some intake family variables and the categories of the index sexual abuse based on the *Crimes Act (1900) (NSW)* as potential predictor variables.

3.5.6 Index Sexual Abuse Categories

For the purpose of analysis, the index sexual abuse was divided into four categories based on legal definitions within the *Crimes Act (1900)*. The four categories were **sexual assault**, **attempted sexual assault**, **indecent assault** and **attempted indecent assault**. **Sexual assault** was defined as vaginal penetration, anal penetration, cunnilingus, fellatio and penetration of the vagina or anus by any part of the body of another person or by an object manipulated by another person. **Indecent assault** involved touching the breasts or genitalia in a way which did not involve sexual

intercourse. An “**attempt**” involved action in relation to the child with the intention of committing an offence, but where the offence was not itself completed.

3.6 Summary

This study is a five year follow-up of a group of sexually abused young people who presented to Child Protection Units at children’s hospitals in Sydney, Australia. Young people and their (non-offending) parents completed standardised and project developed questionnaires and were interviewed. Abused young people were compared with nonabused young people on the basis of depression, self-esteem, anxiety, hope, despair, attributional style, behaviour, criminal activity, drug use, running away, self-injury, suicidal ideation and attempts, bingeing and vomiting. Teachers provided ratings of young people’s behaviour. Official records were examined for other notifications of young people for child abuse/neglect, young people’s juvenile convictions and compensation received for the index sexual abuse event.

CHAPTER 4 - RESULTS I

Abused vs Nonabused Group Comparisons

4. Results

Results have been divided into two parts. *Part I (Chapter 4)* consists of three main sections. The first section describes the sample of young people who took part in the five year follow-up. The second identifies potential confounding variables such as demographic variables, family functioning, mother's mental health, life events, receipt of treatment and court action. These potential confounding variables were used to formulate adjusted regression models for the comparison of abused and nonabused groups. In the third section, abused and nonabused young people were compared on the basis of depression, self-esteem, anxiety, hopefulness, despair and attributional style, behaviour, criminal activity, alcohol and other drug use, eating problems, running away, suicide attempts, self-injury, further notifications for abuse/neglect and victims compensation. *Part II (Chapter 5)* describes the process of developing predictive models for the various outcome measures.

4.1 Participants

Of the original 84 sexually abused children, there were two deaths. One of the young people died of an AIDS-related condition (having been HIV positive at intake) and the other young person committed suicide. One family was unable to be traced as they had moved overseas and thirteen families declined to participate. Therefore, 68 subjects remained for follow-up of which 16 were male (23%) and 52 female (77%). Of the 84 nonabused children, four families (5%) declined to participate and five children who disclosed sexual abuse (6%) were excluded from analysis. This resulted in 75 young people in the nonabused group: 18 males (24%) and 57 females (76%). Thus follow-up rates were 81% for the abused group and 89% for those nonabused.

4.1.1 Decliners

In the sexually abused group, there were no significant differences between the decliners and the participants with respect to demographic variables, mother's mental health or sexual abuse characteristics (Tables 4.1 and 4.2). Apart from the Family Assessment Device (FAD) subscale "Roles", the decliners and participants did not differ in terms of family functioning. Since the subscale "Roles" performed least well psychometrically in the literature, this was considered not to be a significant issue.

Table 4.1: A comparison of demographic and family variables between decliners and participants (within abused group)

Intake Variable	Not Seen at 5 years Mean (SD) or Count (%)	seen at 5 years Mean (SD) or Count (%)	t or χ^2	df	p
Age (years)	9.38 (3.12)	9.34 (3.10)	.04	82	.97
Gender					
Female	10 (16 %)	52 (84%)	1.31	1	.25
Male	6 (27%)	16 (73%)			
Parents SES					
High	5 (17%)	25 (83%)	.11	2	.95
Medium	4 (18%)	18 (82%)			
Low	6 (20%)	24 (80%)			
Care-giver changes					
Same parent/s since birth	5 (20 %)	20 (80 %)	.06	2	.97
Some disruption	7 (18 %)	32 (82 %)			
Multiple care-givers	4 (20 %)	16 (80%)			
Living situation					
With biological parent/s	13 (18 %)	59 (82 %)	.32	1	.57
Not with biological parent/s	3 (25 %)	9 (75 %)			
FAD					
Problem-solving	1.94 (.36)	2.10 (.40)	-1.44	78	.15
Communication	2.03 (.37)	2.18 (.42)	-1.26	78	.21
Roles *	2.17 (.39)	2.51 (.27)	-3.23	17	.005
Affective responsiveness	1.95 (.57)	2.03 (.48)	-.55	78	.58
Affective involvement	2.13 (.35)	2.24 (.28)	-1.35	78	.18
Behaviour control	1.87 (.39)	1.93 (.38)	-.56	78	.58
General functioning	1.95 (.46)	2.09 (.45)	-1.11	78	.27
EPQ					
Psychoticism	3.27 (2.05)	2.44 (1.73)	1.62	79	.11
Extraversion	7.20 (3.97)	7.65 (3.28)	-.46	79	.64
Neuroticism	6.73 (3.77)	6.03 (3.50)	.69	79	.49
Lie Scale	5.53 (3.50)	5.47 (2.95)	.07	79	.94
GHQ					
Somatic Complaints	9.40 (6.01)	8.44 (5.30)	.62	79	.54
Anxiety and insomnia	12.20 (7.18)	9.45 (5.98)	1.55	79	.13
Social dysfunction	8.93 (3.15)	8.38 (3.91)	.51	79	.61
Severe depression	6.00 (6.28)	4.00 (5.30)	1.27	79	.21
Total of subscales	35.87 (19.69)	29.98 (18.02)	1.12	79	.27
Threshold score	11.73 (9.54)	8.52 (7.72)	1.39	79	.17

* Indicates unequal variance.

SES = Socio-economic status
EPQ = Eysenck Personality Questionnaire

FAD = Family Assessment Device
GHQ = General Health Questionnaire

Table 4.2: A comparison of sexual abuse variables between decliners and participants (within abused group)

Intake Variable	Not seen at 5 years Mean (SD) or Count (%)	Seen at 5 years Mean (SD) or Count (%)	t or χ^2	df	p
Age at onset of abuse	7.53 (3.78)	7.70 (3.20)	-.18	80	.86
Duration of abuse					
Single recent event	4 (14 %)	24 (86 %)	.58	2	.75
Over < 6 months	4 (19 %)	17 (81 %)			
Over > 6 months	7 (22 %)	25 (78 %)			
Frequency of abuse					
Single incident	4 (14%)	24 (86%)	1.04	2	.59
2-5 times	3 (14 %)	18 (86 %)			
More than 6 times	7 (23%)	23 (77 %)			
Relationship to abuser					
Natural parent	1 (20 %)	4 (80 %)	.86	3	.84
Step-parent	1 (11 %)	8 (89 %)			
Other known person	11 (19 %)	48 (81 %)			
Stranger	3 (27%)	8 (73 %)			
Intrafamilial abuser	5 (14 %)	32 (87 %)	1.31	1	.25
Extrafamilial abuser	11 (23 %)	36 (77 %)			
Type of abuse					
Touching	2 (33 %)	4 (67 %)	6.25	4	.18
Digital penetration	6 (19 %)	26 (81 %)			
Attempted digital penetration	1 (9 %)	10 (91 %)			
Penile penetration	1 (7 %)	14 (93 %)			
Penile penetration and 2-3 other acts	6 (38 %)	10 (63 %)			
Use of coercion					
Persuasion or bribes	9 (32 %)	19 (68 %)	2.05	2	.36
Threats	3 (20 %)	12 (80 %)			
Physical force	3 (15 %)	17 (85 %)			

4.2 Potential Mediating Factors

Prior to examining outcome, differences were measured between abused and nonabused young people with regard to length of follow-up as well as demographic, family, parent, life events, treatment and court variables. It was important to measure these factors because they may have influenced young people's outcomes independently of the sexual abuse.

4.2.1 Follow-up location and timing

At five year review, most of the children were interviewed in their own homes, the exceptions being six of the sexually abused children (9%) and six of the children not known to have been abused (8%), who were seen at The Royal Alexandra Hospital for Children. Abused young people were followed up an average of 5.42 years (SD=.54) after intake into the study, while

nonabused young people were assessed after an average of 5.07 years ($SD=.75$). This difference in follow-up lag was significant ($t=3.18$, $df=134$; $p=.002$) so regression models comparing abused and nonabused were adjusted for follow-up lag.

4.2.2 Demographics (Table 4.3)

The mean ages of nonabused young people (15.05 years; $SD=3.04$) and abused young people (15.12 years; $SD=3.22$) did not differ significantly ($t= .13$, $df = 141$; $p=.89$), nor did the proportions of males in each group ($\chi^2 =.004$, $df=1$; $p=.95$). There were similar proportions in each group who were still attending school ($\chi^2=1.25$, $df=1$ $p=.26$) and there were no significant differences in the age when abused and nonabused young people left school ($t= -1.58$, $df=30$; $p=.13$). There were significant differences in the highest education level attained by abused and nonabused children ($\chi^2=12.81$, $df=2$; $p=.002$), with a significant linear-by-linear relationship indicating that nonabused young people generally completed more years of high school than those who had been abused ($\chi^2=12.39$, $df=1$; $p<.001$). There were no significant differences in the employment status of the two groups ($\chi^2=6.91$, $df=4$; $p=.14$).

There were significant differences in the socio-economic status (SES) of the families of participating abused and nonabused young people ($\chi^2 = 17.53$, $df = 2$; $p < .001$), with the abused group generally being of lower SES than those nonabused ($X^2_{MH} = 15.75$, $df = 1$; $p < .001$). Significantly fewer of the sexually abused children (69%) than the nonabused children (96%) were living with one or more biological parents at this review ($\chi^2 = 18.45$, $df = 1$; $p < .001$). Similarly, abused young people had experienced significantly more parent-figure changes than nonabused young people ($t=3.57$, $df = 2$; $p = .001$).

Table 4.3: A comparison of demographic and family variables between abused and nonabused young people

Variable	Abused Mean (SD) or Count (%)	Nonabused Mean (SD) or Count (%)	t or χ^2	df	p
Time lag since intake	5.42 (.54)	5.07 (.75)	3.18	134	.002
Age at 5 year review (years)	15.12 (3.22)	15.05 (3.04)	.13	141	.89
Gender					
Females	52 (77 %)	57 (76 %)	.004	1	.95
Males	16 (23 %)	18 (24 %)			
Socio-economic status					
High	25 (38 %)	47 (63 %)	17.53	2	<.001
Medium	18 (27 %)	22 (30 %)			
Low	24 (36 %)	6 (8 %)			
Number of care-giver changes	.72 (1.31)	.12 (.40)	3.57	77	.001
Living situation					
Not living at home	21 (31 %)	3 (4 %)	18.45	1	<.001
With biological parent(s)	47 (69 %)	72 (96 %)			
Currently attending school					
Yes	44 (65 %)	55 (73 %)	1.25	1	.26
No	24 (35 %)	20 (27 %)			
Age when left school	16.23 (1.90)	16.94	-1.58	30	.13
Highest qualification attained					
Higher school certificate	8 (33 %)	16 (80 %)	12.81	2	.002
School certificate	6 (25 %)	4 (20 %)			
No formal qualification	10 (42%)	0			
Young person's occupation					
In education program	5 (21 %)	7 (35 %)	8.55	4	.07
Employed full-time	10 (42 %)	8 (40 %)			
Unemployed	5 (21 %)	2 (10 %)			
Home Duties	4 (17 %)	0			
Employed part-time	0	3 (15 %)			

4.2.3 Family functioning

At follow-up, there were no significant differences between the two groups in terms of family functioning as measured by all of the sub-scales of the Family Assessment Device (FAD) except for the sub-scale "Roles" ($t = 3.19$, $df = 127$; $p = .002$) (Table 4.4), which has performed least well psychometrically (refer to section 3.2.4.9).

Table 4.4: A comparison of FAD scores between parents of abused and nonabused young people

Sub-scale	Abused Mean (SD) (n=57)	Non-abused Mean (SD) (n=72)	t	p
Problem-solving	2.02 (.46)	1.93 (.36)	1.15	.25
Communication	2.10 (.43)	2.03 (.40)	.99	.32
Roles	2.40 (.38)	2.18 (.39)	3.19	.002
Affective responsiveness	2.00 (.60)	1.97 (.51)	.32	.75
Affective involvement	2.19 (.47)	2.09 (.46)	1.28	.20
Behaviour control	1.77 (.40)	1.66 (.35)	1.55	.12
General functioning	1.98 (.51)	1.84 (.41)	1.75	.08

4.2.4 Parental Bonding Instrument

Parental Bonding Instrument (PBI) scores revealed no significant differences between abused and nonabused young people in their views of how much their parents cared for them and protected them personally and socially (Table 4.5).

Table 4.5: Mean scores for Parental Bonding compared between abused and nonabused young people

Variable	Abused Count or Mean (SD)	Non-abused Count or Mean (SD)	t	df	p
Mother					
Care	24.55 (8.35)	28.38 (7.69)	-1.65	47	.11
Protective in Personal Sphere	4.75 (3.26)	4.10 (3.64)	.64	47	.53
Protective in Social Sphere	6.50 (4.14)	5.31 (4.51)	.94	47	.35
Father					
Care	22.64 (9.28)	25.32 (9.01)	-.90	40	.37
Protective in Personal Sphere	4.57 (2.53)	3.00 (2.72)	1.80	40	.08
Protective in Social Sphere	6.93 (4.95)	4.29 (3.67)	1.95	40	.06

4.2.5 Parental Mental Health

Of the sub-scales of the General Health Questionnaire (GHQ), there were significant differences on the Somatic Complaints ($t = 2.20$, $df = 129$; $p = .03$) and the Anxiety and Insomnia subscales ($t = 2.10$, $df = 129$; $p = .04$) (Table 4.6).

Table 4.6: Comparison of GHQ scores between mothers of abused and nonabused young people

Sub-scale	Abused Mean (SD) (n=59)	Non-abused Mean (SD) (n=72)	t	p
Somatic complaints	6.25 (4.80)	4.63 (3.69)	2.20	.03
Anxiety and Insomnia	6.39 (4.68)	4.82 (3.89)	2.10	.04
Social dysfunction	6.71 (2.99)	6.32 (2.08)	.88	.38
Severe depression	1.86 (2.77)	1.24 (2.76)	1.30	.20
Total score	21.39 (12.00)	17.00 (10.08)	2.28	.03

These differences were reflected in the total GHQ scores, with mothers of abused children having a mean GHQ score of 21.39 (SD=12.00) and mothers of non-abused children having a mean total score of 17.00 (SD=10.08) ($t=2.28$, $df=129$; $p=.03$). When a cut-point of 4 was used to dichotomise GHQ threshold scores into clinical and non-clinical ranges, however, there were no significant differences between the proportions of mothers of abused (32%) and of nonabused young people (22%) with clinical scores ($\chi^2=.92$, $df=1$; $p.34$).

4.2.6 Life Events

Abused young people experienced significantly more negative life events (Mean=5.12, SD=2.57) than nonabused young people (Mean=2.75, SD=2.24) ($t=5.72$, $df=133$; $p<.001$). Of the 60 abused children who completed life events questionnaires, six had been pregnant in the last 12 months, compared with none of the nonabused group (one-tailed Fisher's exact test: $p=.007$). Further, five (8%) of the abused group had produced children since they were reviewed at 18 month follow-up, compared with none of the nonabused young people (Fisher's exact test: $p=.04$).

4.2.7 Treatment

Treatment sought by the sexually abused young people varied greatly in terms of frequency, duration, focus, quality and style. Since cell sizes were small, it was not possible to compare the outcome for the children in terms of depression, self-esteem, anxiety, behaviour, and the other emotional and behavioural measures, on the basis of the type of treatment they received. Subsequently, the variable was dichotomised according to whether the young person received treatment or not. Of the sexually abused young people, 30 (48%) sought therapy. Of the nonabused young people, 14 (19%) had sought therapy for a variety of reasons unrelated to child sexual assault, including school and behaviour problems and family therapy. Differences between the numbers of therapy recipients among those abused and nonabused were significant (Fisher's exact test, $p < .001$).

The relationship between each of the different outcome measures and receipt of therapy per se is examined in chapter 5. Within the abused group, therapy specifically for the index sexual abuse was not related to depression ($p = .09$), self-esteem ($p = .11$), behaviour ($p = .22$), family functioning ($p = .15$), mother's mental health ($p = .63$), the number of negative life events ($p = .45$), attributional style for negative events ($p = .24$), attributional style for positive events ($p = .99$).

4.2.8 Court

Results of legal proceedings for the majority of the sexual abuse abused young people were reported after the 18 month follow-up for those who agreed to be interviewed (Oates, Lynch, Stern, O'Toole and Cooney, 1995), however, some abused young people were decided between 18 month and five year follow-ups. In the interest of completeness, a brief summary of results is presented here for all abused young people where information was known at five year follow-up.

Charges were laid in 40 (48%) of the 84 abused young people of child sexual abuse, while in 29 abused young people charges were not laid or were later dropped. In 15 abused young people, it was not known whether charges were laid. Of the 40 abused young people involving charges, 4 resulted in guilty pleas at committal, 26 proceeded to trial and 10 abused young people were dismissed or did not proceed to trial. Of the 26 abused young people which proceeded to trial, 4 resulted in acquittals and 22 (26% of 84) offenders were found guilty.

4.3 Adjustment in Analyses

Since follow-up lag, socio-economic status, number of parent changes, mother's mental health and number of negative life events differed significantly between those abused and nonabused, these factors may have affected young people's outcomes. To take this into account in analyses, outcome was adjusted for these variables through regression models. Regression analyses also adjusted for age at time of assessment, gender of the child and family functioning, since previous studies have suggested that they may be confounding factors, as discussed earlier. These adjustments were done despite the fact that these variables were not significantly different between abused and nonabused young people in this study, and that age and gender were controlled by design. Owing to the loss of matching at five year follow-up between those abused and those nonabused, adjustment via regression was the best method to counter this loss.

4.4 Outcome Variables

For each outcome variable below, results are first given for univariate analyses (unadjusted results). These are followed by results from regression analyses (adjusted results). For adjusted results, p-values are given for the binary variable “group” which indicated whether the young people were abused or nonabused.

4.4.1 Depression

The abused young people had a significantly higher mean standardised score on depression measures than those nonabused ($t=4.52$, $df=87$; $p<.001$) (Table 4.7). Adjusted differences in depression levels remained significant ($t= -2.39$, $df=1$; $p=.02$) (Table 4.7).

Table 4.7: Comparison of univariate and regression analyses

Score	Abused	Nonabused	Unadjusted			Adjusted
	Mean (SD)	Mean (SD)	t	df	p	p
Depression *	1.16 (1.86)	-.03 (1.00)	4.52	87	<.001	.02
Self-esteem *	-.99 (1.53)	.04 (.97)	- 4.59	98	<.001	.008
Anxiety *	12.45 (7.47)	7.52 (5.16)	4.22	93	<.001	.03

* unequal variance.

4.4.2 Self-esteem

The mean standardised self-esteem score for abused children was markedly lower than that of the nonabused young people ($t= -4.59$, $df=98$; $p<.001$) (Table 4.7). After regression analysis, adjusted differences remained significant ($t=2.69$, $df=1$; $p=.008$) (Table 4.7).

4.4.3 Anxiety

Abused young people were significantly more anxious than those nonabused ($t=4.22$, $df=93$; $p<.001$) (Table 4.7). The adjusted regression model revealed that differences in group scores were significant ($t= -2.19$, $df=1$; $p=.03$) (Table 4.7).

4.4.3.1 Clinical Ranges

Significantly more of the abused than the nonabused young people were in the clinical ranges (Table 4.8) as defined for depression, self-esteem and anxiety in section 3.5.2.

Table 4.8: Proportions of young people in clinical ranges

Measure	Abused Count (%)	Nonabused Count (%)	χ^2 (df = 1)	p
Depression	26 (43)	11 (15)	13.28	<.001
Self-esteem	26 (43)	10 (14)	14.49	<.001
Anxiety	24 (43)	16 (22)	6.49	.01

4.4.4 Hopefulness and Despair

Sexually abused young people (mean=25.50, SD=8.51) were significantly less hopeful than nonabused young people (mean=31.17, SD=5.61) ($t = -2.86$, $df=49$; $p=.006$). There were no significant differences in the level of despair between abused (mean=9.95, SD=9.02) and nonabused young people (mean=8.03, SD=5.64) ($t=.93$, $df=49$; $p=.36$). Global personal hopefulness scores were significantly lower among the abused young people (mean=55.55, SD=16.45) than among the nonabused young people (mean=63.14, SD=9.02) ($t = -2.11$, $df=49$; $p=.04$). Because of the sample size, it was not possible to adjust for mothers' mental health, family functioning, socio-economic status, number of negative life events, gender, age and follow-up lag. However, forward stepwise regression was used to develop predictive models (Chapter 5).

4.4.5 Attributional style

Sexually abused children had significantly more pessimistic attributional styles for negative events ($t=3.18$, $df=63$; $p=.002$), although they did have similar scores to the non-abused children for positive events (Table 4.9). Group differences in attributional style scores for negative events and positive events were not significant after adjustment (Table 4.9).

Table 4.9: A comparison of attributional style between groups

Attributional style	Abused	Nonabused	Unadjusted		Adjusted
	Mean (SD)	Mean (SD)	t (df=63)	p	p
Negative events	8.70 (2.73)	6.61 (2.54)	3.18	.002	.21
Positive events	13.26 (3.05)	13.05 (3.97)	.23	.82	.10

4.4.6 Behaviour

4.4.6.1 Child Behavior Checklist (CBCL)

The abused young people had significantly higher total problem behaviour scores than their non-abused peers (Table 4.10). They also scored significantly higher on both internalising and externalising sub-scales, as well as on the majority of the CBCL subscales. There were only 14 children in each group who met the age criterion for the sex problems subscale, so this sub-

sample was quite small. Given this caveat, results have been included for this subscale.

Using regression analysis, adjusted total behaviour scores remained significantly different between abused and nonabused groups ($p=.002$), as did externalising ($p=.01$) and internalising ($p=.03$) scores (Table 4.10).

Table 4.10: Comparing CBCL total and subscale scores between abused and nonabused young people

Score	Abused Mean (SD)	Nonabused Mean (SD)	Unadjusted			Adjusted
			t	df	p	p
Total problems	58.12 (11.01)	49.90 (9.93)	4.26	116	<.001	.002
Externalising	57.57 (10.69)	50.89 (9.94)	3.52	116	.001	.01
Internalising *	57.02 (12.15)	50.29 (8.71)	3.43	99	.001	.03
Aggressive behaviour	58.79 (8.72)	54.39 (6.95)	3.04	116	.003	.21
Anxious/Depressed *	59.68 (9.77)	54.44 (5.84)	3.49	88	.001	.07
Attention problems *	58.13 (7.38)	53.77 (5.15)	3.68	97	<.001	.03
Delinquent behaviour *	60.09 (8.32)	53.81 (6.10)	4.64	100	<.001	.006
Sex problems *	56.57 (9.68)	53.07 (6.11)	1.14	22	.27	(n too small)
Social problems *	58.55 (8.31)	53.13 (5.03)	4.23	89	<.001	.002
Somatic complaints *	58.02 (8.46)	54.45 (5.37)	2.70	91	.008	.07
Thought problems *	55.45 (7.18)	53.61 (5.41)	1.55	102	.12	.78
Withdrawn *	56.55 (8.50)	52.42 (4.78)	3.21	85	.002	.01

* unequal variance.

There were also significant proportions of abused young people in the clinical ranges for a number of the CBCL scores (Table 4.11).

Table 4.11: Comparing proportions of abused and nonabused young people in the clinical ranges for CBCL scores

Score	Abused Count (%)	Nonabused Count (%)	χ^2 (df=1)	p
Total problems	19 (34)	6 (10)	10.36	.001
Externalising	18 (32)	11 (17)	3.29	.07
Internalising	16 (29)	3 (5)	12.27	<.001
			Fisher's exact test, p:	
Aggressive behaviour	5 (9)	2 (3)		.18
Anxious/Depressed	7 (13)	1 (2)		.02
Attention problems	3 (5)	0		.10
Delinquent behaviour	5 (9)	1 (2)		.08
Social problems	3 (5)	0		.10
Somatic complaints	3 (5)	0		.10
Thought problems	2 (4)	0		.22
Withdrawn	6 (11)	0		.01

4.4.6.2

Youth Self-Report (YSR)

Sexually abused children scored significantly higher than non-abused children on total scores as well as on both internalising and externalising scores (Table 4.12). Adjusted differences in total scores remained significant ($p=.04$), as did those for internalising scores ($p=.02$).

Table 4.12: Comparing YSR total and subscale scores between abused and nonabused young people

Score	Abused Mean (SD)	Nonabused Mean (SD)	Unadjusted			Adjusted
			t	df	p	p
Total problems	57.74 (11.62)	49.57 (9.77)	3.92	103	<.001	.04
Externalising	57.62 (13.16)	51.43 (10.53)	2.68	103	.009	.17
Internalising	56.72 (10.83)	49.43 (8.93)	3.78	103	<.001	.02
Aggressive behaviour*	59.21 (9.53)	54.54 (6.47)	2.87	78	.005	.17
Anxious/Depressed *	58.47 (10.06)	53.00 (4.78)	3.43	62	.001	.01
Attention problems *	58.34 (9.05)	53.69 (5.16)	3.14	69	.003	.40
Delinquent behaviour*	59.06 (10.75)	54.95 (6.30)	2.33	70	.02	.51
Self-destructive/ identity problems	58.78 (8.45)	55.45 (7.69)	.92	18	.37	(n too small)
Social problems *	57.06 (9.02)	52.71 (5.00)	2.96	68	.004	.26
Somatic complaints	57.36 (8.71)	54.81 (6.50)	1.72	104	.09	.40
Thought problems *	55.98 (7.43)	52.15 (3.64)	3.24	63	.002	.02
Withdrawn *	56.62 (6.39)	52.14 (3.64)	4.29	69	<.001	.07

* unequal variance.

There were significantly more abused than nonabused young people in the clinical ranges for total problems, externalising, internalising, attention problems and delinquent behaviour scores (Table 4.13).

Table 4.13: Comparing proportions of abused and nonabused young people in the clinical ranges for YSR scores

Score	Abused Count (%)	Nonabused Count (%)	Fisher's exact test p:
Total problems	13 (28)	4 (7)	.004
Externalising	12 (26)	5 (9)	.02
Internalising	9 (19)	1 (2)	.003
Aggressive behaviour	4 (9)	2 (3)	.24
Anxious/Depressed	4 (9)	1 (2)	.12
Attention problems	4 (9)	0	.04
Delinquent behaviour	6 (13)	0	.006
Social problems	3 (6)	1 (2)	.23
Somatic complaints	3 (6)	1 (2)	.23
Thought problems	3 (6)	0	.08
Withdrawn	1 (2)	0	.44

4.4.6.3

Teacher's Report Form (TRF)

Teacher's reports differed somewhat from those of parents and young people. The total problem scores and internalising scores differed between abused and nonabused young people, with teachers rating those abused significantly higher than those nonabused. There were no significant differences between the mean externalising scores for abused and nonabused young people (Table 4.14). Differences in total, internalising and externalising scores were no longer significant after adjusting for the possible confounding factors, however, somatic complaints, thought problems and withdrawn sub-scales remained significantly different after adjustment (Table 4.14).

Table 4.14: Comparing TRF total and subscale scores between abused and nonabused young people

Score	Abused	Nonabused	Unadjusted		Adjusted	
	Mean (SD)	Mean (SD)	t	df	p	p
Total problems	54.28 (10.94)	48.65 (9.47)	2.56	85	.02	.19
Externalising	52.78 (9.92)	49.02 (9.40)	1.79	84	.08	.55
Internalising	54.83 (11.62)	49.72 (8.19)	2.39	84	.02	.25
Aggressive behaviour	55.81 (8.56)	53.57 (5.87)	1.45	85	.15	.52
Anxious/Depressed *	57.44 (8.00)	53.47 (4.33)	2.71	49	.009	.09
Attention problems *	55.83 (7.41)	53.33 (5.66)	1.70	62	.09	.24
Delinquent behaviour	54.33 (6.63)	53.24 (5.26)	.86	85	.39	.92
Social problems *	57.75 (8.77)	53.63 (5.11)	2.53	52	.01	.20
Somatic complaints *	55.61 (7.56)	51.71 (4.17)	2.81	50	.007	.04
Thought problems *	53.56 (6.48)	50.63 (2.70)	2.56	44	.01	.03
Withdrawn *	57.08 (7.94)	53.08 (4.23)	2.76	49	.008	.03

* unequal variance.

There were significantly more abused than nonabused young people in the clinical ranges for internalising, anxious/depressed and social problems scores on the TRF (Table 4.15).

Table 4.15: Comparing proportions of abused and nonabused young people in the clinical ranges for TRF scores

Score	Abused Count (%)	Nonabused Count (%)	Fisher's exact test p:
Total problems	7 (19)	4 (8)	.10
Externalising	5 (14)	5 (10)	.40
Internalising	8 (22)	1 (2)	.003
Aggressive behaviour	3 (8)	1 (2)	.19
Anxious/Depressed	4 (11)	0	.03
Attention problems	1 (3)	1 (2)	.66
Delinquent behaviour	1 (3)	0	.41
Social problems	4 (11)	0	.03
Somatic complaints	1 (3)	0	.41
Thought problems	1 (3)	0	.41
Withdrawn	1 (3)	0	.41

4.4.7 Criminal behaviour

4.4.7.1 Self-report

Analyses of criminal behaviour in the last 12 months were restricted to those young people who were 11 years and over since, in Australia, the age at which criminal responsibility begins is 10 years. Similarly, analyses about criminal behaviour since intake to the project five years ago were restricted to those young people 15 years and over. Sexually abused young people admitted committing more crimes than non-abused children in the last year ($t=2.56$, $df=52$; $p=.01$) as well as since intake ($t=2.82$, $df=29$; $p=.009$). However, these differences were not significant once adjusted (in last year: $t= -1.02$, $df=1$; $p=.31$; since intake: $t= -1.61$, $df=1$; $p=.11$). The two deceased young people were included in these analyses since they died at age 16 years and 19 years and may still have had juvenile criminal records.

Thirty-two (57%) of the sexually abused young people and 24 (43%) of those nonabused over 15 years reported committing one or more crimes since intake, a significant difference (Fisher's Exact Test, $p = .01$). However, differences were not significant when adjusted ($p = .82$). There were significant differences on a univariate level between abused and nonabused young people in frequencies of the various types of crimes they reported having committed since intake to the study (Table 4.15). Owing to the small cell sizes, however, it was not possible to adjust results through regression models. Also, because of the differences in definitions of crimes on the self-report measure and on police records, and also because frequencies of crimes were categorised in the self-report measure, self-report and official records of criminal activity were unable to be compared.

Table 4.16: A comparison of frequencies of types of self-reported crimes between groups (crimes committed since intake)

Crime (according to young person's description of crime)	Abused Count (%)	Nonabused Count (%)	χ^2 (df=1)	p
Being in a stolen car	14 (41)	2 (6)	12.18	<.001
Damaging property	24 (71)	10 (29)	12.18	<.001
Drug dealing	15 (44)	4 (11)	9.24	.002
Fraud (with credit cards or cheques)	14 (41)	2 (6)	12.17	<.001
Hitting another person	22 (65)	10 (29)	9.05	.003
Robbery	15 (44)	1 (3)	16.48	<.001
Shoplifting	28 (82)	16 (46)	10.02	.002
Stealing from someone they knew	19 (56)	10 (29)	5.28	.02

Univariate analyses showed that abused young people (36%) were significantly more likely to

report having been apprehended than those nonabused (3%) (Fisher's exact test: $p < .001$), although once adjusted through regression analysis, there were no significant differences ($p = .98$).

4.4.7.2 Official records

It was interesting to note that for official records of criminal convictions (Table 4.17), there were no significant differences between abused and nonabused young people with regard to the total number of offences committed per person prior to intake to the study ($t = .96$, $df = 159$; $p = .34$) nor the total number of offences committed per person after they enrolled in the study ($t = 1.54$, $df = 85$; $p = .13$; unequal variance) (Table 4.17). When crimes were categorised as violent and non-violent offences, according to the criteria used by the NSW Department of Juvenile Justice (Cain, 1995), there were no significant differences in the number of officially recorded violent crimes per person for which abused and nonabused young people received a conviction ($t = 1.68$, $df = 83$; $p = .10$; unequal variance) (Table 4.17). The number of convictions per young person ranged up to 15. There were no significant differences between the number of abused (5 = 6%) and nonabused young people (1 = 1%) with criminal records (Fisher's Exact Test, $p = .14$).

Table 4.17: Comparing official criminal records between abused and nonabused young people

Convictions	Abused	Nonabused	Unadjusted		
	Mean No. of crimes per person (SD)	Mean No. of crimes per person (SD)	t	df	p
Number before intake	.04 (.33)	0	.96	159	.34
Number since intake *	.38 (2.10)	.03 (.23)	1.54	85	.13
For violent crimes *	.06 (.32)	0	1.68	83	.10

* unequal variance

There were no significant differences between official records of convictions for the two groups when individual crimes were examined (Table 4.18). For the abused young people, there were no significant differences in the total numbers of crimes committed by individuals before and after intake to the study for which convictions were received ($t = -1.65$, $df = 83$; $p = .10$).

Table 4.18: A between groups comparison of frequencies of types of crimes for which young people received a conviction since intake

Official name of crime	Abused Count (%)	Nonabused Count (%)	Fisher's exact test p
Armed robbery	1 (1)	0	.52
Assault	2 (2)	0	.27
Being a passenger in a stolen vehicle	2 (2)	0	.27
Breach of bail conditions	2 (2)	0	.27
Break and Enter	2 (2)	0	.27
Car theft	1 (1)	0	.52
Cultivate drug	1 (1)	0	.52
Malicious damage to property	2 (2)	0	.27
Offensive behaviour	1 (1)	0	.52
Possess drug equipment	1 (1)	0	.52
Possession of drugs	2 (2)	0	.27
Receiving stolen goods	1 (1)	0	.52
Stealing	2 (2)	1 (1)	.53

4.4.8 Cigarette and illicit drug Use

Abused children used cigarettes, hallucinogens and amphetamines significantly more often than their non-abused peers (Table 4.19). However, the significance of the relationship between use of the various drugs and abuse status was not maintained after adjustment through regression analysis (Table 4.19). When young people were categorised as to whether they had ever used drugs other than alcohol or cigarettes, there were no significant differences between abused (36, 66%) and nonabused (55, 79%) young people ($\chi^2=2.58$, $df = 1$; $p = .10$).

Four (7%) of the sexually abused children over 13 years had a history of intravenous drug use, while none of the nonabused children had used intravenous drugs. This difference was statistically significant in univariate analysis (Fisher's exact, $p=.04$). Because this sub-sample of drug-users was so small, it was not possible to run a regression model with all of the adjustment variables.

Table 4.19: A comparison of drug use between abused and nonabused young people

Drug	Abused Count (%)	Nonabused Count (%)	Unadjusted		Adjusted
			χ^2	p	p
Cigarettes					
Never	28 (51)	45 (64)	16.70	<.001	.08
History of use	10 (18)	22 (31)			
Daily use	17 (31)	3 (4)			
Marijuana					
Never	37 (69)	55 (79)	4.57	.10	.86
History of use	14 (26)	15 (21)			
Daily use	3 (6)	0			
Depressants			Fisher's exact test, p:		
Never	52 (95)	70 (100)		.08	*
History of use	3 (6)	0			
Inhalants					
Never	53 (96)	69 (99)		.41	.49
History of use	2 (4)	1 (1)			
Hallucinogens					
Never	47 (86)	67 (96)		.05	.64
History of use	8 (15)	3 (4)			
Ecstasy					
Never	52 (95)	69 (99)		.22	*
History of use	3 (6)	1 (1)			
Amphetamines					
Never	47 (86)	68 (97)		.02	.41
History of use	8 (15)	2 (3)			
Cocaine					
Never	53 (96)	70 (100)		.19	*
History of use	2 (4)	0			
Heroin					
Never	54 (98)	70 (100)		.44	*
History of use	1 (2)				

* Indicates that the adjusted model was unable to be run due to small cell sizes

4.4.9 Alcohol

Of those who responded to the questions on alcohol use, abused young people were having an average of 4.65 (SD=9.32) drinks per week and nonabused young people were having an average of 2.91 (SD=5.43) drinks per week. This difference was not significant ($t=1.22$, $df=80$; $p=.23$).

When alcohol use was categorised into various levels of frequency, there were no significant differences in the pattern of usage between abused and nonabused young people ($\chi^2=4.19$, $df=6$; $p=.65$) (Table 4.20). When drinking levels were dichotomised as hazardous or safe, five (9%) of abused young people and one (1%) nonabused young person were drinking at hazardous weekly levels. The difference between these two proportions was not significant (Fisher's exact, $P=.06$).

Table 4.20: A comparison of drinking levels between abused and

nonabused young people

Frequency	Abused Count (%)	Nonabused Count (%)
Never drink	24 (44)	37 (53)
Since intake to the study but not now	1 (2)	2 (3)
1-2 times in the last year	7 (13)	6 (9)
Every few months	10 (18)	7 (10)
1-3 times per month	5 (9)	7 (10)
Weekly	7 (13)	11 (16)
Daily	1 (2)	0

4.4.10 Parental drug use

Young people reported on whether they knew if their parents had a drug or alcohol problem. Excluding "don't know" answers, 13 (29%) of the remaining 45 abused young people who responded to this question reported such problems in their parents, compared to three (5%) of the 65 corresponding nonabused young people. This was significant ($\chi^2 = 12.60$, $df=1$; $p < .001$) at a univariate level but did not remain significant after adjustment ($p = .74$). However, it would seem inappropriate to adjust for mother's mental health and family functioning when examining parental drug use since it is highly likely that parental drug use would directly affect these variables.

4.4.11 Eating problems

Although there were no significant differences in the frequencies with which abused and nonabused young people dieted (Table 4.21), the sexually abused children were more likely to be bingeing ($\chi^2 = 9.06$, $df=1$; $p = .003$) and forcing themselves to vomit (Fisher's exact test: $p < .001$) (Table 4.21). When vomiting and bingeing were adjusted, only bingeing remained significantly higher among the abused children ($p = .02$).

Table 4.21: A comparison of eating problems between groups

Variable	Abused Count (%)	Nonabused Count (%)	Unadjusted		Adjusted
			χ^2 (df=1)	p	p
Dieting					
Never	17 (47)	34 (65)	2.88	.09	.27
>= once	19 (53)	18 (35)			
Bingeing					
Never	22 (61)	46 (89)	9.06	.002	.02
>= once	14 (39)	6 (12)			
Vomiting					
Never	25 (69)	52 (100)	Fisher's exact test:	<.001	.76
>= once	11 (31)	0			

4.4.12 Running away, suicide attempts and self-injury

Regression analysis revealed no significant differences in running away behaviour between abused and non-abused children (Table 4.22). Significantly more sexually abused children reported deliberate self-injury (Table 4.22) and this was true for the year preceding this review ($p=.02$) as well as since intake to the study ($p=.03$). Significantly more abused than nonabused young people had recently been thinking about suicide (univariate: $\chi^2 =9.84$, $df=1$; $p=.002$; adjusted by regression: $p=.003$) (Table 4.22). After adjustment, significantly more of the sexually abused children who were now 13 years and over had, on self-report, attempted suicide since enrolment in the study ($p=.03$).

Table 4.22: A comparison of self-destructive behaviour between groups

Variable	Abused Count (%)	Nonabused Count (%)	Unadjusted		Adjusted
			χ^2 (df=1)	p	p
Running away					
In last year	11 (31%)	6 (12%)	4.74	.03	.83
Since intake	21 (62%)	13 (26%)	11.18	<.001	.08
Self-injury					
In last year	9 (27%)	2 (4%)	9.60	.002	.02
Since intake	14 (42%)	4 (8%)	14.23	<.001	.009
Suicide					
Recent ideation	21 (34%)	9 (12%)	9.84	.002	.003
Attempts in last year	5 (14%)	0	Fisher's exact test:	.009	.76
Attempts since intake	15 (43%)	3 (6%)	Fisher's exact test:	<.001	.03

4.4.13 Re-victimisation

Of the 84 sexually abused young people, there were 11 (13%) for whom there were no current Department of Community Services computer records or other archived records of the index sexual abuse event. In one other case, the index event was referred to in archived material, but

there was no record of the official notification for the matter on the computer system. This may have been owing to the fact that during the time of the study, Departmental records were in the process of being transferred to the computer system from archived files and some files may simply not have been recorded on the computer system. All 84 sexually abused young people were compared with the 79 nonabused young people on the basis of notifications of any type of abuse or neglect to the Department of Community Services before and after intake to the study, excluding the index event. Those who had been sexually abused received more substantiated notifications for each type of abuse/neglect than those in the nonabused group - only one “nonabused” young person received a notification and that was for physical abuse (Table 4.23). In terms of total notifications for abuse/neglect, the number of notifications ranged up to five for the time frame prior to intake, and up to nine for the period after intake.

Table 4.23: Notifications After Index Abuse, by type

Number of notifications	of Abused Count (%)	Nonabused Count (%)
Sexual Abuse		
None	70 (88)	79 (100)
One	11 (13)	
Two	1 (1)	
Three	2 (2)	
Physical Abuse		
None	75 (89)	78 (99)
One	7 (8)	1 (1)
Two	1 (1)	
Three	1 (1)	
Emotional Abuse		
None	74 (88)	79 (100)
One	7 (8)	
Two	2 (2)	
Three	1 (1)	
Neglect		
None	78 (93)	79 (100)
One	6 (7)	
Running Away		
None	81 (96)	79 (100)
One	2 (2)	
Two	1 (1)	
Self-Harm		
None	78 (93)	79 (100)
One	4 (5)	
Two	2 (2)	

Apart from running away notifications prior to and since intake and self-harm notifications prior to intake, the sexually abused and the nonabused groups differed significantly in the mean number of notifications of abuse/neglect for every type prior to intake (Table 4.24) and after

intake (Table 4.25) and for total numbers of abuse/neglect notifications prior to and subsequent to intake to the study (Table 4.26).

Table 4.24: Comparing groups by types of notifications prior to intake

Notifications	Abused		Nonabused		t	df	p
	Mean (SD)	Total	Mean (SD)	Total			
Sexual abuse	.13 (.49)	11	0		2.40	161	.02
Emotional abuse	.17 (.51)	14	0		2.99	83	.004
Neglect	.18 (.62)	15	.01 (.11)	1	2.40	89	.02
Physical abuse	.07 (.30)	6	0		2.17	83	.03
Running Away	0		0				
Self-Harm	0		0				

Table 4.25: Comparing groups by types of notifications after intake

Notifications	Abused		Nonabused		t	df	p
	Mean (SD)	Total	Mean (SD)	Total			
Sexual abuse	.23 (.59)	19	0		3.53	83	.001
Emotional abuse	.17 (.51)	14	0		2.99	83	.004
Neglect	.07 (.26)	6	0		2.53	83	.01
Physical abuse	.14 (.47)	12	.01 (.11)	1	2.47	93	.02
Running Away	.05 (.27)	4	0		1.65	83	.10
Self-Harm	.10 (.37)	8	0		2.37	83	.02

Table 4.26: A comparison of numbers of total notifications between groups

Notifications	Abused		Nonabused		t	df	p
	Mean (SD)	Total	Mean (SD)	Total			
Prior to index event	.55 (1.24)		.01 (.11)		3.95	85	<.001
After index event	.75 (1.54)		.01 (.11)		4.37	84	<.001
Total (excluding index event)	1.30 (2.40)		.03 (.16)		4.85	84	<.001

4.4.14 Victims Compensation Claims

4.4.14.1 Eligibility

All of the abused young people in the study were eligible for victims compensation by the NSW Victims Compensation Tribunal (VCT) except for one child (1%). This person was ineligible because the offences had occurred outside NSW. However, 21 (25%) young people did apply for victims compensation and 19 (90%) of these applications were successful (Figure 4.1, Table 4.27). The number of applications to the Victims Compensation Tribunal was obtained at a later phase of the project, after interviews had been completed with children and their families. Since families had been promised that they would not be contacted again, it was not possible to ask them directly about applications to the VCT. Reasons given for late applications to the VCT

included not knowing that they were eligible and not wishing to increase children's distress during the period of a court case against an offender. Presumably these were also reasons for the low number of applications made to the VCT.

4.4.14.2 *Primary and Secondary Claims*

A hearing was requested by five of the applicants for victims compensation (24%), but only three applicants (14%) were actually granted a hearing. All other claims were processed by a determination only. There was no significant difference between successful and unsuccessful VCT claims with regard to whether there was a determination or hearing (Fisher's exact test, $p = .72$). Seven (33%) of the applications by primary victims were accompanied by claims by secondary victims and five (71%) of these secondary applications were successful. Five (24%) of the successful claims by primary victims were appealed and four of these (80%) were successful. There was no significant relationship between appealing and having a successful or unsuccessful primary victim claim (Fisher's exact test, $p = .76$). Two (29%) of the secondary victims appealed and both appeals were successful.

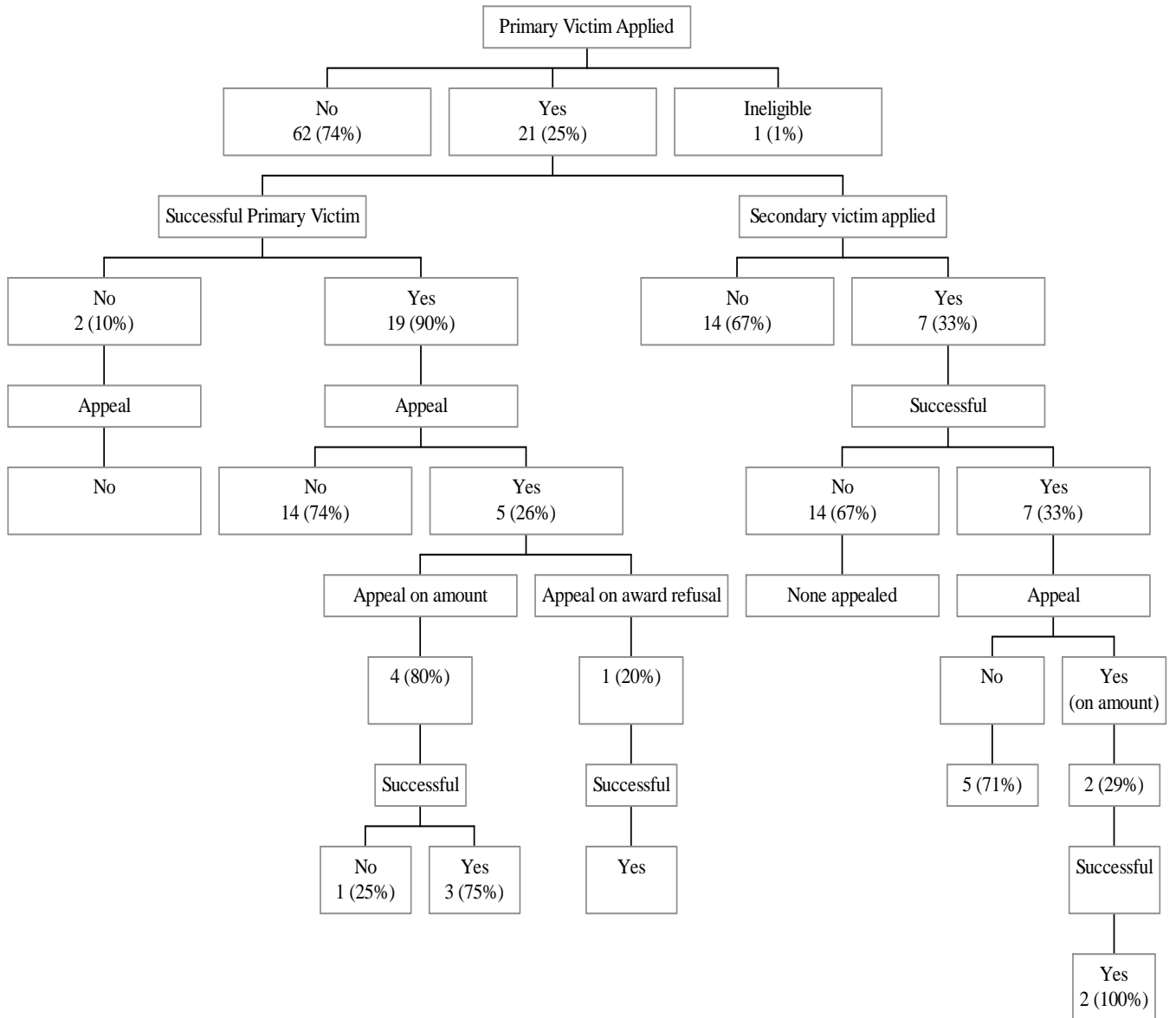


Figure 4.1: The process of claiming victims compensation for the 84 abused young people

4.4.14.3 *Awards by the Victim's Compensation Tribunal*

The mean award to primary victims by the Victim's Compensation Tribunal for pain and suffering was \$18,289.47 (SD = \$10,471.28), with awards ranging from \$2500 to \$40,000. Secondary victims received an average of \$7,737 (SD = \$4,137) and awards ranged from \$2,500 to \$12,000.

4.4.14.4 *Appeals to the District Court*

For primary victims, the mean award after an appeal to the District Court for pain and suffering was \$26,250.00 (SD = \$9,251.13), with awards ranging from \$20,000 to \$40,000. The final amount young people received from either the VCT or the District Court was not statistically significantly related to whether they appealed ($p = .07$). Cell sizes were too small to carry out any further analyses of awards for pain and suffering as a result of appeals.

4.4.14.5 *Duration of Victim's Compensation Tribunal Proceedings*

The average time taken from presentation to lodging a claim with Victims Compensation was 2.07 years (SD = 1.55) with a range of .25 to 6.45 years. There was no significant difference between successful and unsuccessful claims in the time taken from presentation to claim lodgement ($p = .23$). The average length of time between lodging the claim and having it finally determined was 1.68 years (SD = 1.31) with a range of .28 to 6.04 years. There was no significant difference between successful and unsuccessful claims in the time taken from claim lodgement to determination ($p = .15$).

Applications for leave to apply after the official time limit of two years were submitted in 12 (57%) of primary victims' claims. There was no significant relationship between the success of a claim and whether there was an application to lodge the claim outside the official time frame of two years for primary victims (Fisher's Exact Test, $p = .43$) or secondary victims (Fisher's Exact Test, $p = .52$). None of the children were deemed to have contributed to the sexual assault against themselves.

Table 4.27: Victims Compensation findings

Variable		Count	%
Applied for VC	Yes	21	25
	No	63	75
Successful applications	Yes	20	95
	No	1	5
Secondary victim -claim lodged	Yes	7	33
	No	14	67
Secondary victim -claim successful	Yes	5	71
	No	2	29
Applications to apply more than 2 years after abuse	Yes	12	57
	No	9	43
Hearing requested	Yes	5	24
	No	15	71
	Unknown	1	5
Hearing allowed	Yes	3	14
	No	17	81
	Unknown	1	5
Abuser convicted	Yes	9	43
	No	10	48
	Case pending	2	10
Contributory behaviour by victim	Yes	0	0
	No	21	100
Appeal lodged against VCT decision	Yes	5	24
	No	16	76
Appeal successful	Yes	4	80
	No	1	20

4.4.14.6 Charges and Convictions

In abused young people where there was an arrest, a variety of charges were brought against the offenders (Table 4.28). There were significant relationships between award for pain and suffering and frequencies of the following charges: Section 61D(1)F, Section 61E(1), Section 61E (2), Section 66C(1), Section 66A and Section 66B, which are defined in Table 4.28.

Abusers were convicted in nine (43%) of the abused young people, while two (10%) of the abused young people were pending at the time of the application to the Victims Compensation Tribunal. There was no significant relationship between size of award and whether a conviction was recorded ($x = \$16,125.00$, $SD = 6243.57$) or not ($x = \$20,388.89$, $SD = \$14185.77$) ($t = -.82$, $df = 11$; $p = .43$).

Table 4.28: Charges against offenders and compensation awards

Crimes Act Section Number and Description	Mean (SD)	Maximum total charges per offender	Correlations between number of charges and amount of award, R (p)
59 Assault Occasioning Actual Bodily Harm	.05 (.22)	1	.27 (.23)
61 C (1) A Maliciously inflict actual bodily harm upon person with intent to have sexual intercourse	.05 (.22)	1	.27 (.23)
61 D (1) Attempt sexual intercourse without consent / with person under 16 years	.14 (.48)	2	.05 (.83)
61 D (1) A Sexual intercourse without consent with person under 16 years by person in authority	.24 (.62)	2	-.02 (.93)
61 D (1) F Attempt sexual intercourse without consent with person under 16 years	.05 (.22)	1	.47 (.03)
61 E (1) Assault & at time of assault commit an act of indecency upon a person	1.24 (4.35)	20	.45 (.04)
61 E (1) A Assault & at time of assault commit an act of indecency upon a person by a person in authority	.33 (.73)	2	.15 (.53)
61 E (2) Commit an act of indecency towards person under 16 years	.10 (.44)	2	.47 (.03)
61 E (2) A Commit an act of indecency towards person under 16 years by a person in authority	.19 (.40)	1	-.16 (.50)
61 E (2) F Attempt to incite person under 16 years to act of indecency	.10 (.30)	1	.14 (.55)
66 A Sexual intercourse with person under 10 years	.90 (2.17)	9	.60 (.004)
66 B Attempt to have sexual intercourse with person under 10 years	.33 (1.53)	7	.47 (.03)
66 C (1) Sexual intercourse with child between 10 & 16 years	.38 (1.36)	6	.51 (.02)
66 C (2) Sexual intercourse with person under 16 years by a person in authority	.10 (.44)	2	.07 (.76)
66 D Attempt sexual intercourse with child between 10 & 16 years; or assault with intent to commit such offence	.05 (.22)	1	.15 (.52)
78 H Homosexual intercourse with male person under 10 years	.10 (.30)	1	-.16 (.48)

4.4.14.7 *Evidence*

Police statements by 20 (95%) of the victims were tendered as evidence of an act of violence and in 18 abused young people (86%), attending physicians reports were submitted for this purpose. Eleven (61%) of these reports indicated that physical evidence of sexual assault was present. Five (24%) of parents made submissions to the Victims Compensation Tribunal on behalf of their children and children who were primary victims also made submissions to the Tribunal in 3 (14%) of the applications. Reports by doctors or copies of their police statements were included in 18 (86%) of applications and 11 (61%) of these doctors found physical evidence of sexual abuse. There was no significant relationship between the initial compensation award and whether there was physical evidence or not ($t = -.35$, $df = 14$; $p = .73$). School contributed reports for 3 (14%) of children and the Department of Community Services submitted reports or had official files subpoenaed in 5 (24%) of abused young people. The type of evidence submitted to the Victims Compensation Tribunal was not significantly related to the amount of the award (Table 4.29).

4.4.14.8 *Therapists and Their Diagnoses*

There was no significant relationship between whether or not young people had received therapy since intake and whether they applied to the VCT (Fisher's exact test, $p = .16$). However, all successful applications for victims compensation were accompanied by reports from one or more therapists. Therapists were ranked in order of their qualifications (i.e. psychiatrists, psychologists, social workers, then counsellors) and where there was more than one report, the presence of a report from the therapist with the highest qualifications was used for analysis. There were reports by eight (38%) psychiatrists, five (24%) psychologists, four (19%) counsellors and four social workers (19%). Second reports were also submitted by counsellors (2) and social workers (7) in nine (43%) applications. For three (14%) young people, therapists gave a specific diagnosis of Post-Traumatic Stress Disorder (2) or adjustment disorder (1). A variety of symptoms was cited in the reports submitted to the Tribunal (Table 4.30).

Table 4.29: Relationship of evidence submitted to Victims Compensation to amount of award

Type of evidence		Count	%	Mean VCT Award (SD)	t	df	p
Police - statements, reports, etc.	Yes	20	95	--	--	--	--
	No	1	5				
Parents - submissions	Yes	5	24	16200.00 (10401.92)	.51	17	.62
	No	16	76	19035.71 (10781.87)			
Victims - submissions	Yes	3	14	18000.00 (7211.10)	.05	17	.96
	No	18	86	18343.75 (11163.51)			
Doctor - police statement, reports, etc	Yes	18	86	18218.75 (11250.14)	.07	17	.95
	No	3	14	18666.67 (6110.10)			
Evidence consistent with CSA	Yes	11	52	19111.11 (10647.12)	-.35	14	.73
	No (No physical exam)	7 (3)	33 (14)	17071.43 (12748.95)			
School - report	Yes	3	14	18166.67 (14145.08)	.02	17	.98
	No	18	86	18312.50 (10241.87)			
DOCS - report made on child or file subpoenaed	Yes	5	24	19800.00 (8555.70)	-.37	17	.72
	No	16	76	17750.00 (11318.38)			
Therapist - report by one or more therapists	Yes	21	100	--	--	--	--
	No	0	0				
Qualifications of therapists who wrote the first report	Psychiatrist	8	38				
	Psychologist	5	24	n/a			
	Counsellor	4	19				
	Social worker	4	19				
Diagnosis made	Yes	3	14	36,666.67 (5773.50)	-5.15	17	<.001
	No	18	86	14,843.75 (6850.11)			
Diagnosis of PTSD	None	18	86	16,323.53 (9012.04)	-2.80	17	.01
	PTSD	2	10	35,000.00 (7071.07)			
	(Adjustment disorder)	(1)	(5)				

-- cells too small for analysis

PTSD = Post-Traumatic Stress Disorder

Table 4.30: Physical and psychiatric symptoms reported in young people by therapists

Symptom	Number of primary victims with the symptom (%)	t (df = 17)	p
Aggressiveness	6 (29)	2.38	.03
Anger at authority figures	11 (52)	1.01	.33
Anxiety	14 (67)	.87	.40
Bed-wetting	4 (19)	1.09	.29
Behaviour problems	9 (43)	1.57	.14
Depression	8 (38)	.14	.89
Embarrassment	5 (24)	1.09	.29
Fear	13 (62)	2.07	.05
Feelings of stigmatisation, isolation, being “different”	10 (48)	1.55	.14
Future problems predicted	17 (81)	.78	.45
Gender confusion	2 (10)	.52	.61
Inappropriate sexual behaviour e.g. masturbation	3 (14)	1.57	.13
Loss of earnings	2 (10)	-1.53	.14
Loss of hymen	1 (5)	--	--
Loss of quality of life	6 (29)	.12	.91
Loss of relationships	7 (33)	-.82	.42
Loss of trust	8 (38)	1.21	.24
Low energy	3 (14)	.48	.64
Low self-esteem	13 (62)	3.13	.006
Lowered school performance	11 (52)	.23	.82
Mood swings	4 (19)	1.32	.21
Nightmares	15 (71)	2.45	.03
Paranoidal tendencies	2 (10)	.85	.28
Perceived or actual rejection by parent	7 (33)	1.51	.15
Phobias	3 (14)	.59	.57
Poor concentration	8 (38)	1.42	.18
Problems relating	12 (57)	-.06	.96
Psychosomatic pain	6 (29)	1.81	.09
Regressive behaviours	2 (10)	-.02	.98
School refusal	3 (14)	1.17	.26
Self-destructive behaviour	1 (5)	--	--
Shame and/or guilt	12 (57)	1.29	.21
Shock	2 (10)	.11	.91
Sleeping difficulties	11 (52)	.70	.49
Suicidal ideation	3 (14)	.42	.68
Withdrawn or disengaging behaviour	7 (33)	-.14	.89
Other injuries e.g. eating problems, problems with waste control	4 (19)	1.12	.28

-- cells too small for analysis

There was a significant relationship between the initial compensation award and whether there was a specific diagnosis or not ($t = -5.15$, $df = 17$; $p < .001$), particularly if this diagnosis was made by a qualified clinical psychologist or psychiatrist and was Post-Traumatic Stress Disorder ($t = -2.80$, $df = 17$; $p = .01$) (Table 4.30). There were 2 abused young people (5%) where the case summary produced by the registry office of the Tribunal indicated that the young person suffered from Post-Traumatic Stress Disorder in the absence of any such diagnosis from a qualified psychologist or psychiatrist. The mean award for abused young people with such a diagnosis was \$17,093.75 ($SD = \$9,585.09$) and for abused young people without was \$24,666.67 ($SD = \$15,011.11$) but there were no significant differences between these mean awards ($t = -1.16$, $df = 17$; $p = .26$). In a third case, the application form indicated a diagnosis of PTSD but the accompanying psychiatrist's report did not indicate such a diagnosis. It was unclear whether the VCT had relied upon this "diagnosis" of PTSD in making their determination.

There was a significant relationship between the size of the compensation award and whether the diagnosis of PTSD was indicated in the application or case summary ($p = .03$). When types of PTSD diagnoses were broken down into legitimate diagnoses and others, the size of the award was significantly related to legitimate diagnoses ($p = .04$) and not others ($p = .14$). However, it must be noted that the sample sizes were quite small in these two analyses.

4.5 Summary

Participants

Of the 84 sexually abused young people (abused young people), 68 were assessed five years after presentation to Child Protection Units. Of the 84 nonabused young people, five disclosed child sexual abuse and were excluded from analyses. Of the remaining nonabused young people, 75 were assessed. There were no significant differences between abused young people who were decliners and abused young people who were participants.

Potential predictors

There were significant differences between abused and nonabused young people with regard to follow-up lag, highest level of education attained, socio-economic status, whether they were living with biological parents, mother's mental health, number of negative life events and whether parents had drug/alcohol problems. There were no significant differences between abused and nonabused young people in terms of family functioning or perceptions of how well their parents cared for and protected them. Sexually abused young people sought therapy significantly more frequently than the nonabused young people. Charges were laid in 44 (52%) of the 84 abused young people, with 25 (30%) abused young people resulting in a conviction.

Group Comparisons

Regression models adjusted for follow-up lag, socio-economic status, changes in parent-figures, mother's mental health, number of negative life events, family functioning, age and gender. After adjustment, there were no significant differences between abused and nonabused young people in terms of hopefulness and drug use. After adjustment, differences between those abused and nonabused remained significant for depression, self-esteem, anxiety, total problem behaviour scores on the CBCL and YSR, bingeing, self-harm, suicidal ideation and suicide attempts. Abused young people had a significantly more pessimistic attributional style for negative events and levels of despair.

On a univariate level, abused young people experienced significantly more notifications to the Department of Community Services before and after the index sexual abuse for various types of abuse and neglect than nonabused young people. Twenty-one abused young people (25%) applied to the Victims Compensation Tribunal and 19 (90%) claims were successful. A diagnosis of Post-Traumatic Stress Disorder and the symptoms of behaviour problems, fear, nightmares and shame or guilt were significantly related to the size of the award in this sample.

5. Predictors of Outcome

Predictors were identified for those variables which differed significantly between abused and nonabused young people. Potential predictor variables were first divided into four groups according to whether they pertained to (1) demographic, (2) sexual abuse, (3) intake and (4) five year follow-up data. *Demographic variables* were age at five year follow-up, follow-up lag, sex, socio-economic status at intake, number of siblings at follow-up, mother's age at intake, father's age at intake and living situation (biological parent or not) at follow-up. *Sexual abuse variables* were age at onset of abuse, frequency of abuse, duration of abuse, severity of abuse, use of violence, intrafamilial abuser, parent figure abuser, abuser living in the home, physical signs consistent with sexual abuse, more than one abuser, coercion (persuasion or use of adult authority, bribes, verbal threats, physical force), parent's (usually the mother's) reaction to child's disclosure of the abuse (neutral/negative or positive), harassment by the abuser, any contact with the abuser, charges filed against abuser, legal definition of type of sexual abuse experienced (sexual assault, attempted sexual assault, indecent assault, attempted indecent assault), court involvement, receipt of therapy, reabuse and mother's history of child sexual abuse.

Intake variables were experiences of past loss, care-giver changes prior to intake, supportive relationships present, previous abuse/neglect (parent informant), social worker's rating of family functioning, social worker's rating of mother-child relationship, history of parental discord, parental psychiatric history, parental alcohol abuse, parental ill health, parent/s employed or not, mother's EPQ scores (psychoticism, extraversion, neuroticism, lie scale), mother's mental health (GHQ score), family functioning scores, and children's scores for depression, self-esteem and behaviour. *Five year follow-up variables* were pregnancy in last 12 months, having a support person, having parent(s) with drug/alcohol problem, changes in parent-figures, mother's mental health, family functioning, number of negative life events in last 12 months, attributional style for negative events and positive events, criminal offences for which a conviction was received by the young person after the index abuse, notifications prior to index abuse (of all types; neglect, sexual abuse, emotional abuse and physical abuse, notifications after index abuse, self-harm, running away, Wardship, history of accommodation placements by the Department of Community Services and whether there was a Victims Compensation Application.

The relationship between these potential predictor variables and outcome is presented below for each of the 13 outcome variables, followed by results of predictive models using regression analyses. Outcome variables were: (1) depression, (2) self-esteem, (3) anxiety, (4) hopefulness, (5)

despair, (6) behaviour, (7) criminal behaviour, (8) bingeing, (9) self-induced vomiting, (10) self-injury, (11) suicidal ideation and attempts and (12) notifications to the Department of Community Services for abuse/neglect after the index sexual abuse notification. Owing to the small sample sizes, it was not possible to run multivariate analyses for the Victims Compensation data.

All potential predictors which had significant relationships with a given outcome measure were then submitted to a forward stepwise regression model. Variables which remained significant after the model was run were identified as predictors of outcome. Abused and nonabused groups were combined for these analyses. Tables of results for each group of variables are contained in the appendices.

5.1 Depression

5.1.1 Demographics

Only one of the demographic variables was significantly related to depression at five year follow-up, the **child's age** (Appendix 5, Table 5.1). Age was positively correlated with depression ($R = .19$, $n = 136$; $p = .03$) thus older young people were more likely to be sad or depressed.

5.1.2 Sexual abuse variables

The three abuse related variables which were significantly related to depression at five year follow-up were: any **contact with the abuser** ($t = - 2.57$, $df = 21$, $p = .02$), **receipt of therapy** ($t = - 3.14$, $df = 129$; $p = .002$) and whether the offence was within the legal definition of **sexual assault** ($t = - 2.30$, $df = 55$; $p = .03$) (Appendix 5, Table 5.2).

The mean depression score for young people who did not have contact with the abuser (mean = .24, SD = 1.16) was significantly lower than the mean for people who did have contact with the abuser (mean = 2.31, SD = 2.50) (Appendix 5, 5.2). The mean depression score for young people who received therapy (mean = .25, SD = 1.34) was significantly lower than for young people who did not receive therapy (1.14, SD = 1.87) (Appendix 5, 5.2). Young people whose sexual abuse could be categorised as sexual assault had a higher mean depression score (mean = 1.36, SD = 1.92) than those whose abuse did not fall into this legal category (mean = - .47, SD = .79) (Appendix 5, 5.2).

5.1.3 Intake variables

The four intake variables which were significantly related to depression at five year follow-up were: **mother's neuroticism score** ($R = .21$, $n = 134$; $p = .02$) on the Eysenck Personality

Questionnaire and young person's **depression** ($R = .37, n = 119; p < .001$), **self-esteem** ($R = -.37, n = 130; p < .001$) and **behaviour scores** ($R = .24, n = 135; p = .004$) (Appendix 5, Table 5.3).

Depression scores were positively correlated with mother's neuroticism score ($R = .21, n = 134; p = .02$). Depression scores at five year review were positively correlated with depression scores at intake ($R = .37, n = 119; p < .001$), but were negatively correlated with self-esteem scores at intake ($R = -.37, n = 130; p < .001$). Behaviour scores at intake were positively correlated with depression scores at five years ($R = .24, n = 135; p = .004$). Thus sadder or more depressed young people were likely to have had more neurotic mothers, to have been more depressed, to have had poorer self-esteem and have had poorer behaviour at intake.

5.1.4 *Five year Follow-Up Variables*

There were five variables which were significantly related to depression at five year follow-up. These were: having a **parent(s) with a drug/alcohol problem** ($t = -2.34, df = 108; p = .02$), experiencing **changes in parent-figures** ($R = .18, n = 135; p = .04$), **family functioning** ($R = .23, n = 124; p = .009$), numbers of **negative life events** ($R = .49, n = 135; p < .001$) in the last 12 months and **attributional style for positive** ($R = -.43, n = 65; p < .001$) **and negative events** ($R = .53, n = 65; p < .001$) (Appendix 5, Table 5.4). Depression scores were also significantly related to whether the young person had been notified to the Department of Community Services for self-harm ($t = -2.19, df = 134; p = .03$). However, since depression has been shown to be predictive of self-harm (refer to section 2.10.1), self-harm was not submitted to the regression model predicting depression.

Young people whose parent/s had a drug/alcohol problem had significantly higher depression scores (mean = 1.12, SD = 2.26) than those whose parents did not (mean = .23, SD = 1.21). Young people who were more sad or depressed had experienced more parent-figure changes ($R = .18, n = 135; p = .04$), poorer family functioning scores at five year review ($R = .23, n = 124; p = .009$), more negative life events ($R = .49, n = 135; p < .001$) and had poorer attributional style for negative ($R = .53, n = 65; p < .001$) and positive events ($R = -.43, n = 65; p < .001$).

5.1.5 *Predictive model*

The model for predicting depression ($n = 64$) consisted of **number of negative life events** ($t = 4.16; p < .001$) and **attributional style for negative events** ($t = 3.73; p < .001$), and predicted 44% of the variance. Young people who had experienced more negative life events and who had a more

pessimistic attributional style for negative events were more sad or depressed. However, because the attributional style questionnaire was only administered to children 15 years old and younger, thereby limiting the model to the abused and nonabused young people in this age group, another model was run without this variable. This second model ($n = 50$) consisted of **depression at intake** ($t = 2.24$; $p = .03$) and **any contact with the abuser since the abuse** ($t = 2.88$; $p = .006$) and explained 22% of the variance. In this model, young people who were more sad or depressed at intake and who had had contact with the abuser were more sad or depressed at five years. Adjusted R^2 was 42% for the first model and 19% for the second model, so the first model is the better one for explaining depression at five years.

5.2 Self-esteem

5.2.1 Demographics

Age at five year follow-up was slightly negatively correlated with self-esteem at five year review ($R = -.17$, $n = 135$), but this relationship only approached significance ($p = .05$). No other five year follow-up variables were significantly related to self-esteem (Appendix 5, Table 5.5).

5.2.2 Sexual abuse variables

The six abuse related variables which were significantly related to self-esteem at five year follow-up were (Appendix 5, Table 5.6) **multiple abusers** ($t = -3.03$, $df = 40$; $p = .004$), **contact with the abuser** ($t = 3.41$, $df = 57$; $p = .001$), **reabuse** ($t = -3.34$, $df = 6$; $p = .02$), receipt of **therapy** ($t = 3.25$, $df = 67$; $p = .002$) and sexual abuse being defined as **sexual assault** ($t = 4.67$, $df = 11$; $p = .001$) and **attempted indecent assault** ($t = -4.45$, $df = 8$; $p = .002$) (as defined in section 3.5.6).

The mean self-esteem score for young people whose index sexual abuse involved multiple abusers (mean = -1.69 , $SD = .10$) was significantly lower than for young people whose abuse involved a single abuser (mean = -1.02 , $SD = 1.56$). The mean self-esteem score for young people who did not have contact with the abuser (mean = $-.60$, $SD = 1.27$) was significantly higher than the mean for those who did have contact with the abuser (mean = -1.97 , $SD = 1.71$) (Appendix 5, Table 5.6). The reverse was true for reabuse – self-esteem scores were significantly lower in young people who had not been reabused (mean = -1.05 , $SD = 1.56$) than for young people who had been reabused (mean = $.05$, $SD = .43$). This is counter-intuitive and it must be noted that the cell size for the reabused group was extremely small ($n = 3$) hence this statistic appears not to be valid. The mean self-esteem score for young people who received therapy (mean = $-.16$, $SD = 1.21$) was significantly lower than for young people who did not receive therapy (-1.02 , $SD = 1.51$)

(Appendix 5, Table 5.6). Young people whose abuse could be classified as sexual assault had significantly lower self-esteem (mean = - 1.19, SD = 1.47) than those whose abuse did not fall into this legal category (mean = .46, SD = .70) (Appendix 5, Table 5.6). Similarly, those young people whose abuse could be classified as attempted indecent assault (mean = .08, SD = .22) had significantly higher self-esteem than those whose abuse fell outside this category (mean = - 1.11, SD = 1.54).

5.2.3 *Intake variables*

Self-esteem at five year follow-up was significantly related to the four intake variables of mother's rating of **family functioning** ($R = -.18$, $n = 132$; $p = .04$) and young people's depression ($R = -.31$, $n = 118$; $p = .001$), **self-esteem** ($R = .39$, $n = 129$; $p < .001$) and **behaviour** ($R = -.24$, $n = 134$; $p = .005$) (Appendix 5, Table 5.7). At five years, those with higher self-esteem had higher self-esteem, poorer family functioning, depression and behaviour at intake.

5.2.4 *Five Year Follow-Up Variables*

There were five variables which were significantly related to self-esteem at five year follow-up. These were **pregnancy** in the last 12 months ($t = -2.44$, $df = 132$; $p = .02$), **family functioning** ($R = -.34$, $n = 124$; $p < .001$), having a **supportive friend or relative** ($t = -2.73$, $df = 117$; $p = .007$), number of **negative life events** ($R = -.45$, $n = 134$; $p < .001$) experienced and **attributional style for positive** ($R = .54$, $n = 65$; $p < .001$) **and negative events** ($R = -.55$, $n = 65$; $p < .001$) (Appendix 5, Table 5.8). Young people who had further notifications to the Department of Community Services for abuse/neglect after intake to the study had significantly lower self-esteem (mean = -.97, SD = 1.19) than those young people who did not (mean = -.32, SD = 1.36) ($t = 2.10$, $df = 133$; $p = .04$). The six young people who had been pregnant in the last 12 months had lower self-esteem scores (mean = - 1.72, SD = 1.62) than young people who had not been pregnant (mean = -.37, SD = 1.31). Young people who were able to nominate a person who had supported them had higher self-esteem scores (mean = -.21, SD = 1.27) than young people who were not able to nominate a supportive person (mean = - 1.20, SD = 1.25). Young people with better self-esteem had experienced better family functioning ($R = -.34$, $n = 124$; $p < .001$), fewer negative life events ($R = -.45$, $n = 134$; $p < .001$) and had better attributional style for negative events ($R = -.55$, $n = 65$; $p < .001$) and positive events ($R = .54$, $n = 65$; $p < .001$).

5.2.5 *Predictive model*

The first model generated ($n = 64$) was able to explain 58% of the variance in self-esteem and contained the three variables **number of negative life events** ($t = -4.11$; $p < .001$), **attributional style for positive events** ($t = -3.39$; $p = .001$) and **attributional style for negative events** ($t = 4.84$; $p < .001$). Young people who had experienced more negative life events, and who had a more pessimistic attributional style for positive and negative events had poorer self-esteem at five years. The second model ($n = 117$), formulated without attributional style to include older children, contained only **depression at intake** ($t = -3.55$; $p < .001$) and explained 10% of the variance. Those who were more sad or depressed at intake had poorer self-esteem at five years. Since adjusted R^2 was 56% for the first model and 9% for the second model, the first model is the better one for explaining self-esteem at five years.

5.3 **Anxiety**

5.3.1 *Demographics*

One demographic variable was significantly related to anxiety at five year follow-up, namely, whether the young person was **living with one or both biological parents** or not (Appendix 5, Table 5.9). The eight young people who were not living with a biological parent/s were more anxious (mean = 14.38, SD = 6.02) than young people who were living with their biological parent/s (mean = 9.35, SD = 6.65) ($t = -2.08$, $df = 127$; $p = .04$).

5.3.2 *Sexual abuse variables*

The three abuse related variables which were significantly related to anxiety at five year follow-up were: **contact with the abuser**, sexual abuse defined as **sexual assault** and receipt of **therapy** (Appendix 5, Table 5.10). Young people who had contact with the abuser since the abuse were more anxious (mean = 16.41, SD = 7.97) than those who had no contact with the abuser (mean = 11.14, SD = 6.55) ($t = -2.57$, $df = 52$; $p = .01$). Young people whose abuse could be legally categorised as sexual assault were more anxious (mean = 13.15, SD = 7.79) than young people whose abuse could not be categorised as such (mean = 6.83, SD = 3.19) ($t = -3.65$, $df = 15$; $p = .002$). Young people who received therapy were more anxious (mean = 12.18, SD = 7.56) than those who did not receive therapy (mean = 8.69, SD = 6.03) ($t = -2.77$, $df = 123$; $p = .006$).

5.3.3 *Intake variables*

The four intake variables which were significantly related to anxiety at five year follow-up were: **parental alcohol abuse**, **mother's neuroticism**, and young person's **depression** and **self-esteem**

(Appendix 5, Table 5.11). Young people whose parent/s reported a history of alcohol abuse were less anxious (mean = 8.09, SD = 7.45) than young people whose parents did not report these problems (mean = 13.27, SD = 7.06) ($t = 2.15$, $df = 53$; $p = .04$). This result is surprising, particularly given that at five year review, young people who had a parent/s with a history of alcohol abuse were more anxious (mean = 12.19, SD = 7.30) than young people who did not report parents with these problems (mean = 8.88, SD = 6.02), although this result only bordered on significance ($p = .05$). Young people who were more anxious had had more neurotic mothers ($R = .19$, $n = 127$; $p = .03$), were more depressed ($R = .33$, $n = 112$; $p < .001$) and had poorer self-esteem at intake ($R = -.33$, $n = 123$; $p < .001$).

5.3.4 *Five Year Follow-Up Variables*

There were six five year follow-up variables which were significantly related to anxiety at five year follow-up (Appendix 5, Table 5.12). These variables were: **pregnancy** in the young people, **changes in parent figures**, **family functioning**, number of **negative life events**, **attributional style for negative events** and **attributional style for positive events** (Appendix 5, Table 5.12). The five young women who had been pregnant in the last 12 months (mean = 17.20, SD = 5.98) were more anxious than those who had not been pregnant (mean = 9.40, SD = 6.59) ($t = 2.60$, $df = 126$; $p = .01$). Young people who were more anxious had experienced more changes in parent figures ($R = .20$, $n = 128$; $df = .02$), poorer family functioning ($R = .24$, $n = 117$; $p = .008$), more negative life events ($R = .51$, $n = 128$; $p < .001$), and had poorer attributional style for negative events ($R = .45$, $n = 65$; $p < .001$) and positive events ($R = -.45$, $n = 65$; $p < .001$).

5.3.5 *Predictive model*

Attributional style for negative events ($t = 4.01$; $p < .001$) was the only variable in the model ($n = 64$) which explained 20% of the variance in anxiety. In the absence of attributional style variables, **depression at intake** ($n = 111$; $t = 3.64$, $p < .001$) was the only variable to significantly predict anxiety and explained 11% of the variance. According to these models, young people who had a more pessimistic attributional style for negative events or who were more sad or depressed at intake were more anxious at five years. Adjusted R^2 was 19% for the first model and 10% for the second model, so the first model is the better one for explaining anxiety at five years.

5.4 **Hopefulness**

5.4.1 *Demographics*

Of the demographic variables, only **father's age at intake** was significantly related to hopefulness scores (Appendix 5, Table 5.13). Father's age was positively correlated with hopefulness scores ($R = .36$, $n = 38$; $p = .03$), that is, young people with older fathers were more hopeful.

5.4.2 *Sexual abuse variables*

Of the sexual abuse variables, the only variable significantly related to hopefulness scores was the **classification of the sexual abuse as attempted sexual assault** (Appendix 5, Table 5.14). Equal numbers of young people had abuse categorised as attempted sexual assault or not ($n = 11$) (refer to section 3.5.6 for definition), but young people who had been abused in a way legally categorised as attempted sexual assault had significantly higher hopefulness scores (mean = 29.55, $SD = 4.72$) than those who had not (mean = 21.45, $SD = 9.69$) ($t = -2.49$, $df = 15$; $p = .03$).

5.4.3 *Intake variables*

Young people's **depression**, **self-esteem** and **behaviour** at intake were significantly related to hopefulness scores (Appendix 5, Table 5.15). Young people who were more hopeful were less sad or depressed at intake ($R = -.43$, $n = 51$; $p = .002$), had better behaviour scores ($R = -.41$, $n = 50$; $p = .003$) and had better self-esteem ($R = .51$, $n = 51$; $p < .001$).

5.4.4 *Five Year Follow-Up Variables*

Five of the five year follow-up variables were significantly related to hopefulness scores, having a **parent with a drug/alcohol problem** ($t = 2.45$, $df = 45$, $p = .02$), and young people's **depression** ($R = -.61$, $n = 51$; $p < .001$), **self-esteem** ($R = .56$, $n = 51$; $p < .001$), **anxiety** ($R = -.42$, $n = 51$; $p = .002$) and **behaviour** ($R = -.38$, $n = 30$; $p = .04$) (Appendix 5, Table 5.16). Young people who reported having a parent/s with a drug/alcohol problem were less hopeful (mean = 24.09, $SD = 9.74$) than those who did not (mean = 30.25, $SD = 6.43$). Young people who were more hopeful were less depressed ($R = -.61$, $n = 51$; $p < .001$), less anxious ($R = -.42$, $n = 51$; $p = .002$), had better behaviour scores ($R = -.38$, $n = 30$; $p = .04$) and better self-esteem ($R = .56$, $n = 51$; $p < .001$).

Young people who had **further notifications for sexual abuse** after the index event had significantly lower hopefulness scores (mean = 20.33, $SD = 3.79$) than those who did not (mean = 29.25, $SD = 7.37$) ($t = 2.06$, $df = 49$; $p = .04$). Young people who had **notifications for neglect after the index sexual abuse event** had significantly lower hopefulness scores (mean = 17.50, $SD = 2.12$) than those who did not (mean = 29.18, $SD = 7.27$) ($t = 2.25$, $df = 49$; $p = .03$).

5.4.5 *Predictive model*

Since behaviour at five year review may have been an expression of hopefulness, it was not included amongst the variables submitted to the regression model. The predictive model ($n = 50$) for hopefulness consisted only of **self-esteem at five year review** ($t = 4.71$; $p < .001$) and this explained 31% of the variance. Thus, young people with better self-esteem at five years were more hopeful.

5.5 **Despair**

5.5.1 *Demographics*

None of the demographic variables were significantly related to despair (Appendix 5, Table 5.17).

5.5.2 *Sexual abuse variables*

Of the sexual abuse variables, only **contact with the abuser** was significantly related to despair (Appendix 5, Table 5.18). Young people who had contact with the abuser since the index abuse event were significantly more despairing (mean = 15.00, SD = 10.71) than those who had not (mean = 5.75, SD = 4.35) ($t = -2.74$, $df = 20$; $p = .01$).

5.5.3 *Intake variables*

Five of the intake variables, **mother's psychoticism**, **mother's extraversion** and young person's **depression**, **self-esteem** and **behaviour**, were significantly related to despair (Appendix 5, Table 5.19). Young people who were more despairing had mothers who were less psychotic ($R = -.33$, $n = 49$; $p = .02$) and less extraverted ($R = -.29$, $n = 49$; $p = .04$). These young people had poorer self-esteem ($R = -.40$, $n = 51$; $p = .003$), were more depressed ($R = .52$, $n = 51$; $p < .001$) and had more problem behaviour ($R = .31$, $n = 50$; $p = .03$) at intake.

5.5.4 *Five Year Follow-Up Variables*

There were five five year follow-up variables which were significantly related to despair, number of **negative life events**, **depression**, **self-esteem**, **anxiety** and **behaviour** (Appendix 5, Table 5.20). Young people who were more despairing had experienced more negative life events ($R = .32$, $n = 51$; $p = .02$), were more depressed ($R = .78$, $n = 51$; $p < .001$), more anxious ($R = .71$, $n = 51$; $p < .001$), had more problem behaviour ($R = .53$, $n = 30$; $p = .003$) and poorer self-esteem ($R = -.69$, $n = 51$; $p < .001$). Since behaviour at five year review may have been an expression of despair, it was not included amongst the variables submitted to the regression model.

5.5.5 *Predictive model*

The predictive model ($n = 50$) for despair consisted only of **depression at five years** ($t = 8.74$; $p < .001$) and this explained 61% of the variance. Young people who were more sad or depressed at five years were also more despairing.

5.6 **Behaviour**

5.6.1 *Demographics*

The one demographic variable which was significantly related to behaviour at five year follow-up was **mother's age** at intake (Appendix 5, Table 5.21). Children's behaviour at five year follow-up was negatively correlated with mother's age at intake ($R = -.20$, $n = 116$; $p = .03$), thus children with younger mothers had more problem behaviour.

5.6.2 *Sexual abuse variables*

The one abuse related variable which was significantly related to behaviour at five year follow-up was receipt of **therapy** (Appendix 5, Table 5.22). Young people who received therapy had more problematic behaviour (mean = 58.38, $SD = 11.16$) than those who did not (mean = 51.66, $SD = 10.88$) ($t = -2.93$, $df = 110$; $p = .004$).

5.6.3 *Intake variables*

The seven intake variables which were significantly related to behaviour at five year follow-up were **parental ill health**, mother's **neuroticism**, **mother's mental health**, **family functioning**, and young person's **depression**, **self-esteem** and **behaviour** (Appendix 5, Table 5.23). Young people whose parent/s had a history of ill health had more problem behaviour (mean = 58.47, $SD = 9.47$) than those young people whose parents did not (mean = 52.55, $SD = 11.01$) ($t = 2.09$, $df = 112$; $p = .04$). Problem behaviour at five years was associated with the following: higher levels of neuroticism in mothers ($R = .35$, $n = 117$; $p < .001$), poorer mental health in mothers ($R = .30$, $n = 117$; $p = .001$) and poorer family functioning ($R = .36$, $n = 117$; $p < .001$) at intake. Problem behaviour scores at five year review were significantly related to young people being more sad or depressed ($R = .34$, $n = 101$; $p < .001$), having more problem behaviour ($R = .53$, $n = 117$; $p < .001$) and poorer self-esteem ($R = -.23$, $n = 112$; $p = .01$) at intake.

5.6.4 *Five Year Follow-Up Variables*

There were four five year follow-up variables which were significantly related to problem behaviour scores (Appendix 5, Table 5.24). These were **mother's mental health, family functioning**, number of **negative life events** and **attributional style for positive events**. Problem behaviour scores were associated with poorer mental health in mothers ($R = .44$, $n = 114$; $p < .001$), poorer family functioning ($R = .40$, $n = 114$; $p < .001$), experiencing more negative life events in the last 12 months ($R = .47$, $n = 111$; $p < .001$) and having poorer attributional style for positive events ($R = -.32$, $n = 64$; $p = .01$). Behaviour was also significantly related to whether there were notifications to the Department of Community Services after the intake sexual abuse event for all types of abuse/neglect ($t = -3.46$, $df = 116$; $p = .001$), sexual abuse ($t = -1.94$, $df = 116$; $p = .06$), emotional abuse ($t = -3.08$, $df = 116$; $p = .003$) and physical abuse ($t = -2.82$, $df = 116$; $p = .006$). Children who were notified for any form of abuse/neglect had higher problem behaviour scores (mean = 61.58, SD = 8.99) than children who were not notified (mean = 52.30, SD = 10.99). Children who were notified for sexual abuse had higher problem behaviour scores (mean = 60.67, SD = 9.43) than those who were not (mean = 53.23, SD = 11.18). Children who were notified for emotional abuse had higher problem behaviour scores (mean = 66.00, SD = 11.40) than those who were not (mean = 53.03, SD = 10.78). Children who were notified for physical abuse had higher problem behaviour scores (mean = 66.00, SD = 11.63) than those who were not (mean = 53.14, SD = 10.84).

5.6.5 *Predictive model*

The three variables which significantly predicted behaviour scores were **number of negative life events** ($t = 4.44$; $p < .001$), **family functioning at intake** ($t = 3.52$; $p < .001$) and **behaviour scores at intake** ($t = 5.64$, $p < .001$). These variables explained 49% of the variance in behaviour ($n = 109$). Young people who had experienced more negative life events, whose parents rated family functioning more poorly and who had poorer behaviour at intake had poorer behaviour at five years.

5.7 **Criminal behaviour**

Criminal behaviour was measured in terms of whether or not the young person received one or more criminal convictions as a juvenile. The two deceased young people were included in these analyses since they died at age 16 years and 19 years.

5.7.1 *Demographics*

None of the demographic variables were significantly related to whether young people had a juvenile criminal record or not (Appendix 5, Table 5.25).

5.7.2 *Sexual abuse variables*

One of the sexual abuse variables, **mother's own sexual abuse**, was significantly related to whether convictions were received as a juvenile after the index sexual abuse (Fisher's Exact Test, $p = .04$) (Appendix 5, Table 5.26). Of the 31 mothers who had been sexually assaulted in childhood, three (10%) had children with juvenile criminal records.

5.7.3 *Intake variables*

Two of the intake variables were significantly related to criminal behaviour (Appendix 5, Table 5.27), **social worker's ratings of the mother-child relationship** ($\chi^2 = 17.71$, $df = 4$; $p = .001$) and **history of parental ill health**. The poorer the mother-child relationship, the more likely the child was to have a criminal record ($\chi^2_{MH} = 3.17$, $df = 1$; $p = .07$). Three (11%) of the 27 mothers with a history of ill health had children with juvenile criminal records, compared to two (2%) mothers without a history of ill health, thus young people with criminal records were more likely to have mothers with a history of ill health (Fisher's Exact Test, $p = .04$).

5.7.4 *Five Year Follow-Up Variables*

There were seven five year follow-up variables significantly related to criminal activity, **being pregnant/getting someone pregnant** in the last 12 months, **prior notifications for neglect**, having notifications for **self-harm after the index sexual abuse**, having notifications for **abuse/neglect of all types before and after the index sexual abuse**, having a history of **State Wardship** and having had accommodation **placements** by the Department of Community Services (Appendix 5, Table 5.28). Since Wardship and placement history were very closely associated, Wardship was not submitted to the model.

Having a juvenile criminal record was significantly related to being pregnant/getting someone pregnant in the last 12 months (Fisher's Exact Test, $p < .001$). There was a significant relationship between prior notifications for neglect and having juvenile criminal records (Fisher's Exact Test, $p = .003$). There was a significant relationship between having notifications for self-harm after the index sexual abuse event and having a juvenile criminal record (Fisher's Exact Test, $p < .0001$). Significant relationships were present between having juvenile criminal records and having

notifications for abuse/neglect of all types prior to the index sexual abuse (Fisher's Exact Test, $p = .001$) and after the index sexual abuse (Fisher's Exact Test, $p = .001$). The events of pregnancy and self-harm in young people may be viewed as outcomes of impulsivity and risk-taking behaviour, not unlike criminal behaviour. Therefore, pregnancy and self-harm were not submitted to regression models predicting criminal activity.

Two of the nine (22%) young people with histories of State Wardship had juvenile criminal records. The relationship between State Wardship and having a juvenile criminal record was significant (Fisher's Exact Test, $p = .04$). There was a significant relationship between having had accommodation placements by the Department of Community Services and having juvenile criminal records (Fisher's Exact Test, $p = .02$). Three out of 18 (17%) young people with placement histories had juvenile criminal records. Since Wardship and placement history were very closely associated, Wardship was not submitted to the model.

5.7.5 *Predictive model*

The predictive model for juvenile criminal convictions consisted solely of **prior notifications for neglect** (OR = 11.07, 95% CI = 1.50 to 81.70; $p = .02$). That is, having prior notifications for neglect increased the likelihood of having juvenile criminal convictions by 11 times. This model ($\chi^2 = 4.55$, $df = 1$; $p = .03$) explained 12% of the deviance.

5.8 **Bingeing**

Self-reported histories of bingeing were examined in young people who were 13 years and over.

5.8.1 *Demographics*

None of the demographic variables were significantly related to bingeing (Appendix 5, Table 5.29).

5.8.2 *Sexual abuse variables*

The only abuse related variable which was significantly related to bingeing was whether the sexual abuse could be **categorised as attempted sexual assault or not** (Fisher's exact test, $p = .04$) (Appendix 5, Table 5.30). Three (23%) of young people who had binged had abuse which could be legally categorised as attempted sexual assault, while 13 (59%) of young people who had never binged had abuse which was classified as attempted sexual assault.

5.8.3 *Intake variables*

There were four intake variables significantly related to bingeing. These were **not experiencing past loss** of a parent through separation, divorce or death (Fisher's Exact Test, $p = .02$), experiencing more **caregiver changes** (Fisher's Exact Test, $p = .03$), **history of parental discord** (Fisher's Exact Test, $p = .003$) and young people's **depression scores** ($t = -2.23$, $df = 86$; $p = .03$) (Appendix 5, Table 5.31). Seven of the 26 (27%) young people who had experienced past loss of a parent had a history of bingeing, compared to 19 of 26 (73%) who had never binged. Eight of the 14 (57%) bingers had experienced caregiver changes, compared to six (43%) who had not. The trend for bingers to have a history of more caregiver changes was significant ($\chi^2_{MH} = 5.49$, $df = 1$; $p = .02$). Six of 14 (43%) bingers had parents with a history of discord, compared with eight (57%) who did not. Young people with a history of bingeing were more depressed at intake (mean = 1.32, $SD = 2.02$) than young people who had never binged (mean = .39, $SD = 1.52$).

5.8.4 *Five Year Follow-Up Variables*

Five of the five year follow-up variables were significantly related to bingeing, **having a parent with a drug/alcohol problem** ($\chi^2 = 4.33$, $df = 1$; $p = .04$), **number of negative life events** ($t = -4.05$, $df = 28$; $p < .001$), **depression** ($t = -2.69$, $df = 24$; $p = .01$), **self-esteem** ($t = 2.94$, $df = 86$; $p = .004$) and **anxiety** ($t = -3.80$, $df = 86$; $p < .001$) (Appendix 5, Table 5.32). 54 (89%) of young people who had never binged had parents without a history of alcohol/drug problems, compared to ten (67%) of bingers. Bingers had experienced more negative life events (mean = 5.80, $SD = 2.69$) than those young people who had never binged (mean = 3.12, $SD = 2.29$). Bingers were more depressed (mean = 1.69, $SD = 2.10$) than non-bingers (mean = .35, $SD = 1.37$), had lower self-esteem (mean = -1.19, $SD = 1.60$) than non-bingers (mean = -.23, $SD = 1.17$) and were more anxious (mean = 15.00, $SD = 5.82$) than non-bingers (mean = 9.03, $SD = 6.27$).

Notifications to the Department of Community Services for **abuse/neglect** after the index sexual abuse, and for **sexual abuse** after the index event were also significantly related to having a history of bingeing. Seven of 15 (47%) young people who had notifications to the Department of Community Services for abuse/neglect after the index sexual abuse had a history of bingeing, compared to 13 of 73 (18%) without further notifications who were bingers. Three of four (75%) young people with further notifications of sexual abuse had a history of bingeing, compared to 17 of 84 (20%) who were not.

5.8.5 *Predictive model*

The predictive model for bingeing (model $\chi^2 = 18.05$, $df = 2$; $p < .001$) had a small sample size ($n = 36$), so it must be used with some caution. The significant predictors were **history of parental discord** (OR = 6.42, 95%CI = 1.87 to 22.03; $p = .003$) and **number of negative life events** ($\beta = .50$; $p = .02$). Bingers were 6.42 times more likely to be young people whose parents had a history of discord and they also had experienced more negative life events. History of parental discord and number of negative life events explained 38% of the deviance in bingeing.

5.9 **Self-induced Vomiting**

5.9.1 *Demographics*

None of the demographic variables were significantly related to self-induced vomiting (Appendix 5, Table 5.33).

5.9.2 *Sexual abuse variables*

Receipt of **therapy** was the only sexual abuse related variable to be significantly associated with self-induced vomiting (Fisher's Exact Test, $p = .04$) (Appendix 5, Table 5.34). Seven (64%) of those who had a history of self-induced vomiting had received therapy compared to 24 (32%) of young people who had never self-induced vomiting. Since self-induced vomiting could be predictive of whether the young person received therapy or not, therapy was not submitted to models predictive of self-induced vomiting.

5.9.3 *Intake variables*

Mother's mental health ($t = -2.19$, $df = 84$; $p = .03$) and young person's **depression** ($t = -2.75$, $df = 86$; $p = .007$) and **self-esteem** ($t = 2.30$, $df = 86$; $p = .02$) at intake were significantly related to self-induced vomiting (Appendix 5, Table 5.35). Young people who had self-induced vomiting had mother's with poorer mental health (mean = 29.30, SD = 11.19) than young people who did not have a history of self-induced vomiting (mean = 19.28, SD = 13.84). Young people reporting self-induced vomiting were more depressed at intake (mean = 1.86, SD = 2.23) than those who had not reported this (mean = .42, SD = 1.52). They also had lower self-esteem at intake (mean = -1.35, SD = 1.35) than non-reporters (mean = -.39, SD = 1.29).

5.9.4 *Five Year Follow-Up Variables*

Four five year follow-up variables were significantly related to self-induced vomiting, **having a parent with a drug/alcohol problem** (Fisher's Exact, $p = .002$), **mother's mental health** ($t =$

2.85, $df = 26$; $p = .008$), and young people's **depression** ($t = -2.72$, $df = 11$; $p = .02$) and **anxiety** ($t = -3.44$, $df = 86$; $p = .001$) (Appendix 5, Table 5.36). Five of 12 (42%) young people reporting parents with a history of drug/alcohol problems had self-induced vomiting in the past compared with three of 64 (5%) of young people who did not report parental history of drug/alcohol problems. The 11 young people with a history of self-induced vomiting had mothers with lower scores for mental health (mean = 12.55, $SD = 5.22$) than the 69 who had never self-induced vomiting (mean = 18.35, $SD = 10.73$) - the small cell size for the vomiting group may explain this unexpected result. Young people with a history of self-induced vomiting were more depressed (mean = 2.68, $SD = 2.78$) than those without (mean = .37, $SD = 1.20$) and were more anxious (mean = 16.45, $DF = 6.91$) than those without a history of self-induced vomiting (mean = 9.52, $SD = 6.17$). Receiving notifications to the Department of Community Services for **running away** after the index sexual abuse was also related to self-induced vomiting (Fisher's Exact Test, $p = .01$), but because both types of behaviour can be viewed as acting-out behaviour, running away was not submitted to predictive models.

5.9.5 *Predictive model*

Having a parent with a history of drug/alcohol problems (OR = 14.52, 95% CI = 2.84 to 74.21; $p = .001$) was the sole variable which remained in the model to significantly predict self-induced vomiting (model $\chi^2 = 10.63$, $df = 1$; $p = .001$; $n = 76$). This model explained 21% of the deviance in self-inducing vomiting and young people whose parent/s had a history of drug/alcohol problems were more likely to be self-inducing vomiting.

5.10 **Self-Injury**

Self-reported self-injury was examined in young people who were 13 years and over.

5.10.1 **Self-injury in the last 12 months**

5.10.1.1 *Demographic variables*

None of the demographic variables were significantly related to self-injury in the last 12 months (Appendix 5, Table 5.37).

5.10.1.2 *Sexual abuse variables*

The only sexual abuse variable which was significantly related to self-injury in the last 12 months was whether the abuse could be **legally classified as indecent assault** (Appendix 5, Table 5.38).

All nine of the young people who had self-injured in the last 12 months had their abuse classified as indecent assault, compared to eight (40%) of the non-self-injuring young people.

5.10.1.3 *Intake variables*

Of the intake variables **mother's mental health** and young person's **depression** score were significantly related to self-injury in the last 12 months at five year review (Appendix 5, Table 5.39). Mothers whose children had reported self-injury in the last year had poorer mental health at intake (mean = 3.40, SD = 17.03) than young people who did not report it (mean = 18.25, SD = 12.44). Young people who had reported self-injury in the last 12 months were more depressed at intake (mean = 1.66, SD = 2.20) than those who did not report self-injury in the last year (mean = .41, SD = 1.54).

5.10.1.4 *Five Year Follow-Up Variables*

Seven five year follow-up variables were significantly related to self-injury in the last 12 months, **parental history of drug/alcohol problems**, the number of **changes in parent-figures**, number of **negative life events** in last 12 months, **self-esteem**, **anxiety**, **number of notifications prior to index abuse** and **number of accommodation placements** by the Department of Community Services (Appendix 5, Table 5.40). Four (50%) young people who had self-injured in the last year had parents with a history of drug/alcohol problems, compared to seven (10%) of the young people who did not self-injure in the last year. Young people who self-injured had also experienced more changes in parent-figures (mean = 1.64, SD = 1.50) than young people who did not self-injure in the last year (mean = .34, SD = 1.00). Those who self-injured had experienced more negative life events (mean = 5.18, SD = 3.25) than those who did not self-injure in the last 12 months (mean = 3.41, SD = 2.38). In addition, young people who had self-injured had poorer self-esteem (mean = -1.62, SD = 1.70 vs mean = -.22, SD = 1.16), they were more anxious (mean = 16.55, SD = 7.53 vs mean = 9.34, SD = 5.87), had experienced more notifications (mean = .63, SD = 1.28 vs mean = .00, SD = .00) and experienced more accommodation placements (mean = 1.29, SD = 2.96 vs mean = .00, SD = .00) than those who had not self-injured.

5.10.1.5 *Predictive model*

Self-injury in the last 12 months was significantly predicted by **number of parent changes** ($\beta = .56$, $p = .02$) and by **anxiety** ($\beta = .16$, $p = .01$) (model $\chi^2 = 16.99$, $df = 2$; $p < .001$). The more changes in parent-figures and the more anxious the young person was, the more likely they were to self-injure in the last year. This model explained 26% of the deviance.

5.11.2 Self-injury since intake to the study

5.11.2.1 Demographic variables

None of the demographic variables were significantly related to self-injury since intake (Appendix 5, Table 5.41).

5.11.2.2 Sexual abuse variables

Four of the sexual abuse variables, the abuser being a **parent figure** (Fisher's Exact Test, $p = .03$), **contact with the abuser** (Fisher's Exact Test, $p = .04$), whether the abuse could be **categorised as indecent assault** (Fisher's Exact Test, $p < .001$) and receipt of **therapy** (Fisher's Exact Test, $p = .01$), were significantly related to self-injury since intake (Appendix 5, Table 5.42). Eight (57%) of young people who had self-injured since intake to the study had had contact with the abuser, compared to four (21%) of those who had never self-injured. Thirteen (93%) of young people who had self-injured since intake to the study had been abused in a way that could be categorised as indecent assault, compared to four (27%) of those who had never self-injured. Eleven (61%) of young people who had self-injured since intake had received therapy, compared to 17 (26%) of those who had never self-injured. It is likely that self-injury would predict receipt of therapy and not the reverse, therefore therapy was not submitted to the predictive regression model of self-injury.

5.11.2.3 Intake variables

Of the intake variables, only **depression** was significantly related to self-injury since intake (Appendix 5, Table 5.43). Young people who had self-injured since intake were more depressed at intake (mean = 1.60, SD = 2.16) than those who had never self-injured (mean = .29, SD = 1.42).

5.11.2.4 Five Year Follow-Up Variables

Eight of the five year follow-up variables, **parental drug/alcohol abuse history**, **number of parent-figure changes**, number of **negative life events**, **despair**, **depression**, **self-esteem**, **anxiety** and **notifications after the index abuse**, were significantly related to self-injury since intake (Table 5A, below; Appendix 5, Table 5.44). Five (36%) of young people with a history of self-injury had a parent/s with a history of drug/alcohol abuse, compared to six (10%) of those who had never self-injured. Young people who had a history of self-injury had experienced more parent-figure changes, more negative life events, were more despairing, more depressed, had lower self-esteem, were more anxious and had experienced fewer notifications prior to the index sexual abuse

than those young people without a history of self-injury since intake. **Notifications for abuse/neglect after the index sexual abuse** were significantly related to self-injury since study intake (Fisher's Exact Test, $p = .03$).

Table 5A: Comparing significantly different means for 5 year follow-up variables between young people with and without a history of self-injury since intake to the study

Variable	With history of self-injury Mean (SD)	Without history of self-injury Mean (SD)
Number of parent-figure changes	1.11 (1.37)	.34 (1.04)
Number of negative life events	5.00 (2.77)	3.27 (2.39)
Despair	14.58 (9.95)	6.86 (5.17)
Depression	1.83 (2.45)	.30 (1.18)
Self-esteem	- 1.50 (1.66)	- .11 (1.04)
Anxiety	15.78 (7.42)	8.79 (5.43)
Notifications prior to index abuse	0 (0)	.79 (1.40)

5.11.2.5 Predictive models

The best model for predicting self-injury since intake to the study consisted of **despair** ($\beta = .18$, $p = .01$) and **notifications after intake** (OR = 10.17, 95%CI = 1.25 to 82.68; $p = .04$) (model $\chi^2 = 14.51$, $df = 2$; $p = .001$; $n = 49$). The higher the despair score, the more likely the young person was to have self-injured since intake. The presence of notifications for abuse/neglect after intake to the study increased the risk of self-injury. These two variables explained 27% of the deviance in self-injury.

5.12 Suicidal ideation and attempts

Suicide attempts were examined in young people who were 13 years and over.

5.12.1 Recent suicidal ideation

5.12.1.1 Demographics

None of the demographic variables were significantly related to recent suicidal ideation at a univariate level (Appendix 5, Table 5.45).

5.12.1.2 Sexual abuse variables

None of the sexual abuse variables were significantly related to recent suicidal ideation (Appendix 5, Table 5.46).

5.12.1.3 Intake variables

Four of the intake variables, **parental employment** (Fisher's Exact Test, $p = .03$) **mother's mental health** ($t = -2.58$, $df = 25$; $p = .02$) and young person's **self-esteem** ($t = 2.50$, $df = 93$; $p = .01$) and **behaviour** ($t = -2.45$, $df = 92$; $p = .02$), were significantly related to recent suicidal ideation at five year review (Appendix 5, Table 5.47). At intake, 67% of suicide attempters had parent/s who were employed. At intake, mother's mental health was poorer among suicide attempters (Mean = 28.38, SD = 17.49) than among non-suicide attempters (Mean = 17.93, SD = 11.32). Suicide attempters had lower self-esteem scores at intake (Mean = -1.15, SD = 1.37) than non-suicide attempters (Mean = -.34, SD = 1.30). Suicide attempters had higher problem behaviour scores at intake (Mean = 59.95, SD = 13.02) than non-suicide attempters (Mean = 52.95, SD = 11.12).

5.12.1.4 Five Year Follow-Up Variables

Seven five year follow-up variables were significantly related to recent suicidal ideation: number of **negative life events**, **attributional style for negative events**, **despair**, **depression**, **self-esteem**, **anxiety** and **number of DOCS directed accommodation placements** (Appendix 5, Table 5.48). Suicide attempters had experienced significantly more negative life events (Mean = 4.86, SD = 2.97) than non-suicide attempters (Mean = 3.43, SD = 2.58). They also had significantly higher attributional style scores for negative events (Mean = 9.50, SD = 1.35) than non-suicide attempters (Mean = 6.96, SD = 2.71). Suicide attempters had significantly higher despair scores (Mean = 18.14, SD = 11.10) than non-suicide attempters (Mean = 7.39, SD = 5.30). They were significantly more depressed (Mean = 2.35, SD = 2.08) than non-suicide attempters (Mean = .20, SD = 1.13), had significantly lower self-esteem (Mean = -1.59, SD = 1.74) than non-suicide attempters (Mean = -.24, SD = 1.14) and were significantly more anxious (Mean = 15.00, SD = 7.63) than non-suicide attempters (Mean = 9.15, SD = 5.98). Suicide attempters had significantly fewer Department of Community Services placements (Mean = .00, SD = .00) than non-suicide attempters (Mean = 1.42, SD = 2.89).

5.12.1.5 Predictive model

Recent suicidal ideation was significantly predicted by **depression at five years** ($\beta = .91$, $p < .001$) and by **mother's mental health at intake** ($\beta = .04$, $p = .04$) (model $\chi^2 = 31.64$, $df = 2$; $p < .001$; $n = 95$). Young people were more likely to attempt suicide if they were more depressed and their mothers had poorer mental health. The model explained 32% of the deviance.

5.12.2 Suicidal attempts in the last 12 months

5.12.2.1 Demographic Variables

Of the demographic variables, only **mother's age at intake** was significantly related at a univariate level to suicide attempts in the last year ($t = 2.48$, $df = 81$; $p = .02$) (Appendix 5, Table 5.49). Mothers of suicide attempters were significantly younger (Mean = 31.40, SD = 5.03) than mothers of non-suicide attempters (Mean = 38.08, SD = 5.88).

5.12.2.2 Sexual abuse variables

Of the sexual abuse variables, categorisation of the abuse as **attempted sexual assault** was the only variable which was significantly related to suicide attempts in the last year (Fisher's Exact Test, $p = .03$) (Appendix 5, Table 5.50). None of the suicide attempters had experienced attempted sexual assault, whereas 16 (55%) of non-suicide attempters had experienced attempted sexual assault.

5.12.2.3 Intake variables

Three of the intake variables, **parent's employment status** (Fisher's Exact Test, $p = .02$), **mother's neuroticism** ($t = -2.37$, $df = 83$; $p = .02$) and young person's **self-esteem** ($t = 2.83$, $df = 85$; $p = .006$), were significantly related to suicide attempts in the last 12 months (Appendix 5, Table 5.51). Three (60%) of suicide attempters were living with a parent(s) who was not in the paid workforce. Mothers of suicide attempters had significantly higher neuroticism scores (Mean = 8.00, SD = 3.16) than non-suicide attempters (Mean = 4.48, SD = 3.23). Suicide attempters had significantly poorer self-esteem at intake (Mean = -2.08, SD = 1.05) than non-suicide attempters (Mean = -.41, SD = 1.30).

5.12.2.4 Five Year Follow-Up Variables

Four of the five year follow-up variables, **hopefulness**, **depression**, **self-esteem** and **anxiety**, were significantly related to suicide attempts in the last 12 months (Appendix 5, Table 5.52). Behaviour was also statistically significant ($t = -2.29$, $df = 64$; $p = .03$), however, it was not included in regression models because of its overlap with the above variables, as discussed previously. Suicide attempters had significantly lower hopefulness ($t = 5.72$, $df = 48$; $p < .001$) scores than non-suicide attempters, they were significantly more depressed ($t = -3.83$, $df = 4$; $p = .02$), had significantly lower self-esteem ($t = 5.16$, $df = 85$; $p < .001$) and were significantly more anxious ($t = -4.32$, $df = 85$; $p < .001$). Means for the suicide attempters and non-suicide attempters appear below in Table 5B.

Table 5B: Comparing significantly different means for 5 year follow-up variables between suicide attempters and non-suicide attempters

Variable	Suicide attempters	Non-suicide attempters
	Mean (SD) or Count (%)	Mean (SD)) or Count (%)
Hopefulness	10.67 (8.51)	30.15 (5.57)
Depression	4.88 (2.59)	.41 (1.19)
Self-esteem	- 3.09 (1.14)	- .29 (1.18)
Anxiety	21.80 (6.38)	9.78 (6.02)
Notifications prior to index abuse	0 (0)	.50 (1.17)

5.12.2.5 Predictive Model

The predictive model for suicide attempts in the last 12 months consisted solely of **depression** at five year follow-up ($\beta = 1.26$, $p = .003$) (model $\chi^2 = 22.83$, $df = 1$; $p < .001$; $n = 87$). The more sad or depressed the young person, the more likely they were to have attempted suicide. Depression explained 60% of the deviance in suicide attempts in the last 12 months.

5.12.3 Suicide attempts since intake to the study

5.12.3.1 Demographics

There were three demographic variables significantly related to suicide attempts since intake to the study, **young person's age** ($t = - 3.10$, $df = 85$; $p = .003$), **number of siblings** ($t = 2.30$, $df = 83$; $p = .02$) at follow-up and **living situation** at follow-up (Fisher's exact Test, $p = .02$) (Appendix 5, Table 5.53). Suicide attempters were significantly older, had a significantly lower number of siblings than non-suicide attempters and were significantly more likely to be living with at least one biological parent (Table 5C).

Table 5C: Comparing significantly different means for demographic variables between suicide attempters and non-suicide attempters

Variable	Suicide attempters	Non-suicide attempters
	Mean (SD) or Count (%)	Mean (SD)) or Count (%)
Age	18.06 (2.12)	16.35 (2.08)
Number of siblings	.65 (1.06)	1.57 (1.57)
Living with biological parent/s	14 (78%)	67 (97%)

5.12.3.2 Sexual abuse variables

Four of the sexual abuse variables, **age at onset of abuse**, **contact with the abuser**, **whether the abuse could be classified as attempted sexual assault** and **mother's child sexual abuse history**, were significantly related to suicide attempts since intake to the study (Appendix 5, Table 5.54).

Suicide attempters were significantly more likely to be older at the onset of the abuse (Mean = 10.20 years, SD = 2.57) than non-suicide attempters (Mean = 8.10 years, SD = 2.86 years) ($t = -2.24$, $df = 33$; $p = .03$). Significantly more (60%) suicide attempters had contact with the abuser since intake to the study (Fisher's Exact Test, $p = .02$). Significantly more (11, 73%) suicide attempters did not fall into the abuse category of attempted sexual assault, while four (27%) did fall into this category (Fisher's Exact Test, $p = .04$). Suicide attempters were significantly more likely to have a mother who did *not* report a history of child sexual abuse – this was true for seven (54%) suicide attempters (Fisher's Exact Test, $p = .04$). Significantly more suicide attempters received therapy (Fisher's Exact Test, $p = .002$), but since suicide attempts would be likely to predict therapy and not vice versa, therapy was not submitted to regression models predictive of suicide attempts.

5.12.3.3 *Intake variables*

Three of the intake variables, young people's **depression**, **self-esteem** and **behaviour** were significantly related to suicide attempts since intake (Appendix 5, Table 5.55). Suicide attempters (Mean = 2.16, SD = 2.29) were significantly more depressed at intake than non-suicide attempters (Mean = .21, DF = 1.22) ($t = -3.49$, $df = 20$; $p = .002$). They had significantly lower self-esteem (Mean = -1.34, SD = 1.33) than non-suicide attempters (Mean = -.28, DF = 1.26) ($t = 3.15$, $df = 85$; $p = .002$) and they also had significantly more behaviour problems (Mean = 61.06, SD = 11.23) than non-suicide attempters (Mean = 52.28, SD = 10.80) ($t = -3.04$, $df = 84$; $p = .003$).

5.12.3.4 *Five Year Follow-Up Variables*

Seven five year follow-up variables were significantly related to suicide attempts since intake to the study, having a **parent with a drug/alcohol problem**, number of **parent figure changes**, number of **negative life events**, **despair**, **depression**, **self-esteem** and **anxiety** (Appendix 5, Table 5.56). Behaviour was also significantly related to suicide attempts since intake to the study but it was not included in any predictive models because the behaviour problem score includes measures of behaviour similar to some of the other variables above.

It was interesting to note that even though three of the five young women who had been pregnant in the last 12 months had attempted suicide in the past, the relationship was not significant. 53% of suicide attempters had a parent with a drug/alcohol problem. The mean number of parent changes for suicide attempters was 1.28 (SD = 1.81) while it was .30 for non-suicide attempters (SD = .79). Young people who had attempted suicide had experienced more negative life events (Mean = 5.83, SD = 2.41) than those who did not attempt suicide (Mean = 3.20, SD = 2.42). While there were no

significant differences in hopefulness scores, suicide attempters (Mean = 14.54, SD = 10.04) had significantly higher despair scores than non-suicide attempters (Mean = 6.92, SD = 4.92). Suicide attempters had higher depression scores (Mean = 2.31, SD = 2.41) than non-suicide attempters (Mean = .24, SD = 1.06). They also had lower self-esteem scores (Mean = - 1.79, SD = 1.56) than non-suicide attempters (Mean = - .10, SD = 1.04). Suicide attempters were also significantly more anxious (Mean = 17.61, SD = 6.27) than non-suicide attempters (Mean = 8.61, SD = 5.36).

Having a history of **accommodation placements by DOCS** was also significantly related to suicide attempts since intake (Fisher's Exact Test, $p = .005$). Five of the seven (71%) young people with placement histories having attempted suicide. It is interesting to note that notifications to the Department of Community Services for self-harm and running away, both acting out behaviours, are significantly related to suicide attempts since intake to the study (Fisher's Exact Test, $p = .04$).

5.12.3.5 *Predictive Model*

The variables which predicted suicide attempts since intake to the study were **anxiety** ($\beta = .28$, $p = .008$), **parental drug use** (OR = 7.61, 95%CI = 1.27 to 45.57; $p = .03$) and **age at five year follow-up** ($\beta = .71$, $p = .01$) (model $\chi^2 = 40.43$, $df = 3$; $p < .001$; $n = 75$). Older young people who were more anxious at five years were more likely to have a history of suicide attempts. Furthermore, young people with parents with drug/alcohol problems were 7.6 times more likely to attempt suicide. The three variables explained 54% of the deviance in suicide attempts since intake to the study.

5.13 **Subsequent Notifications for Abuse/Neglect**

Analyses of subsequent notifications for abuse and or neglect were restricted to young people who had experienced the index sexual abuse i.e. were in the abused group.

5.13.1 *Demographics*

None of the demographic variables were significantly related to whether there were one or more child abuse/neglect notifications to the Department of Community Services after intake to the study (Appendix 5, Table 5.57).

5.13.2 *Sexual abuse variables*

One variable, **contact with the abuser**, was significantly related to notifications to the Department of Community Services after intake to the study (Fisher's Exact Test, $p = .02$) (Table 5.57). Three

of the 21 (14%) young people who had contact with the abuser had notifications of abuse/neglect after intake compared to 18 of 42 (43%) young people who did not have contact with the abuser. This result appears somewhat unusual. It should be noted that all three of the young people who disclosed further sexual abuse had received notifications to the Department of Community Services for abuse/neglect after intake, compared to 17 of the 57 (30%) who did not disclose further sexual abuse. That is, the relationship between self-reported reabuse and official notifications for further abuse and neglect was significant (Fisher's Exact Test, $p = .03$).

5.13.3 *Intake variables*

There were six intake variables which were significantly related to whether or not there were notifications to the Department of Community Services after intake to the study (Table 5.58). These were **past loss** (Fisher's Exact Test, $p = .001$), **caregiver changes** (Fisher's Exact Test, $p = .001$), **parental psychiatric history** (Fisher's Exact Test, $p = .007$), **history of parental ill health** (Fisher's Exact Test, $p = .04$), **mother's psychoticism** ($t = -2.82$, $df = 79$; $p = .006$) and whether parent/s were **employed** or not (Fisher's Exact Test, $p < .001$).

Of the young people who had received one or more notifications after the index sexual abuse 26 (90%) had experienced loss of a parent, compared to 31 (56%) of those without further notifications. Similarly, 26 (90%) had experienced one or more changes in caregivers compared to 31 (56%) of those without further notifications. Sixteen (55%) of those with further notifications had parents with a history of psychiatric difficulties compared to 14 (26%) of those who did not have further notifications. Ten (42%) of subsequently notified young people had parents with a history of ill health compared to ten (19%) who were not later notified. Of the young people who received further notifications, 13 (46%) had parent/s who were employed, compared to 45 (83%) of those who did not. Young people with further notifications had mothers with higher psychoticism scores (mean = 3.36, $sd = 1.57$) than those who did not (mean = 2.21, $sd = 1.83$).

5.13.4 *Five Year Follow-Up Variables*

While there were several variables which were significantly related to whether there were notifications to the Department of Community Services after the index event (Appendix 5, Table 5.59), three of these variables were considered potential *predictors* of the number of these subsequent notifications (i.e. were not outcome variables themselves). These were **notifications for abuse/neglect prior to the index sexual abuse event** (Fisher's Exact Test, $p = .005$), and prior notifications for **neglect** (Fisher's Exact Test, $p = .04$) and **emotional abuse** (Fisher's Exact Test, p

= .02) (Appendix 5, Table 5.59). Of those with subsequent notifications for abuse or neglect, 11 (38%) had prior notifications for abuse or neglect, compared to six (11%) without such subsequent notifications. More young people with subsequent notifications had prior notifications for emotional abuse (7, 24%) than those without subsequent notifications (3, 6%). Having prior notifications for neglect was also more common among those with further notifications (6, 21%) than among those without (3, 6%). It should be noted that the outcome variables which were significantly related to notifications subsequent to the index abuse were criminal activity (Fisher's Exact Test, $p = .004$) and attributional style total score ($t = 2.30$, $df = 25$; $p = .02$).

5.13.5 *Predictive model*

The variables which comprised the predictive model ($n = 82$) for notifications to the Department of Community Services after the index sexual abuse event were whether parents were **employed or not** (OR = 4.35, 95% CI = 1.48 to 12.76; $p = .003$) and whether there were **caregiver changes or not prior to intake** (OR = 4.88, 95% CI = 1.25 to 19.00; $p = .02$). This model explained 17% of the deviance. Young people whose parents were unemployed were 4.35 times more likely to have received further notifications for abuse or neglect after the index sexual abuse; young people who had experienced one or more caregiver changes prior to intake were 4.88 times more likely to be the subject of further notifications.

5.14 **Predictors of Subsequent Sexual Abuse**

When subsequent notifications for *sexual abuse only* was designated as the outcome variable in lieu of overall numbers of notifications, the following variables significantly predicted outcome: **notifications for sexual abuse prior to the index event** (OR = 12.16, 95% CI = 1.58 to 93.73; $p = .02$) and having the index event categorised as **indecent assault** (OR = 7.30, 95% CI = 1.43 to 37.30; $p = .02$). This model ($\chi^2 = 10.46$, $df = 2$; $p = .005$; $n = 75$) explained 16% of the deviance. Young people with notifications for sexual abuse prior to the index sexual abuse event were 12.16 times more likely to be notified after the index event for sexual abuse. Children whose index abuse could be categorised as indecent assault were 7.30 times more likely to be subsequently notified for sexual abuse.

5.15 Summary

A summary of the predictive models for each of the outcome variables appears below. It is important to note that the variable signifying “group” (i.e. abuse status) was not a significant predictor when offered to each of the models.

Outcome variable	Predictors
Depression	<ul style="list-style-type: none"> ➤ number of negative life events ➤ attributional style for negative events
Self-esteem	<ul style="list-style-type: none"> ➤ number of negative life events ➤ attributional style for positive events ➤ attributional style for negative events
Anxiety	<ul style="list-style-type: none"> ➤ attributional style for negative events
Behaviour	<ul style="list-style-type: none"> ➤ number of negative life events ➤ family functioning at intake ➤ behaviour scores at intake
Juvenile criminal convictions	<ul style="list-style-type: none"> ➤ prior notifications for neglect
Hopefulness	<ul style="list-style-type: none"> ➤ self-esteem at five year review
Despair	<ul style="list-style-type: none"> ➤ depression at five years
Self-injury in the last 12 months	<ul style="list-style-type: none"> ➤ number of parent changes ➤ anxiety
Self-injury since intake to the study	<ul style="list-style-type: none"> ➤ despair ➤ notifications after intake
Recent suicidal ideation	<ul style="list-style-type: none"> ➤ depression at five years ➤ mother’s mental health at intake
Suicide attempts in the last 12 months	<ul style="list-style-type: none"> ➤ depression at five year follow-up
Suicide attempts since intake to the study	<ul style="list-style-type: none"> ➤ anxiety ➤ parental drug use ➤ age at five year follow-up
Bingeing	<ul style="list-style-type: none"> ➤ history of parental discord ➤ number of negative life events
Vomiting	<ul style="list-style-type: none"> ➤ Parent with a history of drug/alcohol problems
Notifications to the Department of Community Services after the index sexual abuse event	<ul style="list-style-type: none"> ➤ parents employed or not at intake ➤ caregiver changes or not prior to intake
Subsequent notifications for sexual abuse	<ul style="list-style-type: none"> ➤ notifications for sexual abuse prior to the index event ➤ indecent assault

6. Summary, Discussion and Conclusions

This chapter will summarise the study and discuss the results with reference to the hypotheses. The limitations and strengths of the project will also be identified and suggestions for future research will be made. The conclusions and implications of the findings will be outlined.

6.1 Summary

6.1.1 Literature Review

It was pointed out in *chapter 1* that child sexual abuse is a very common problem. However, it is important to define child sexual abuse in a way which allows results to be comparable to other research findings. Similarly, samples must also be selected in a way which allows results to be related to existing work. Research design in the area of child sexual assault has progressed from being retrospective to prospective and there have been few long-term studies of emotional and behavioural outcomes. Few studies have involved comparisons with a control group. It is also imperative to take into account factors which may mediate the effects of the sexual abuse, such as family functioning and psychological status, socio-economic status, the child's age and gender and numbers of negative life events experienced by the young person.

A review of the literature in *chapter 2* showed that child sexual abuse has been found to be significantly related to depression, self esteem, anxiety, behaviour, criminal activity, drug use, running away, self-injury, suicidal ideation and attempts, and eating problems. In the main, these studies did not take into account potential mediators, use control groups and prospectively follow sexually abused children over periods longer than two years. No research to date has examined the relationship between child sexual abuse and hopefulness and despair. Similarly, there has been very little work in the area of attributional style and sexual abuse, with one uncontrolled study focussing on the association between attributional style and self-blame in sexually abused children. Links have been identified between child sexual abuse and revictimisation.

Identified potential mediators include demographic variables, mother and parent factors, characteristics of the abuse, life events and pre-existing difficulties. Demographic confounding variables have been shown to be age, gender, ethnicity and

socio-economic status. Mother's mental and physical health have been demonstrated to be important factors; as were family functioning, the quality of the parent-child relationship; the young person's perceived level of parental support, care, attachment and nurturance; parental reliability, discord, separation and loss, caregiver changes; and changes in living situation. Other potential mediators have been shown to include preabuse developmental and psychiatric difficulties, negative life events, emotional abuse, parental domestic violence, and young people's drug or alcohol abuse or dependence. Influential abuse related variables were frequency and duration of the abuse, age of onset, the presence of coercion, re-victimisation, abuse severity, experiencing multiple abusive events, the relationship between the perpetrator and the child, self-blame and aspects of disclosure. Protective factors were higher levels of paternal care during childhood, together with fewer affiliations with delinquent or substance abusing peers. Other mediating factors may include revictimisation, therapeutic intervention, legal intervention and victim compensation.

6.1.2 *Study design*

While initially planned as a case-control study, this project became a matched cohort study. Five years after presentation to Child Protection Units, a cohort of sexually abused young people was compared with a group of nonabused young people. At the time of presentation to the Child Protection Units during 1988 - 1990, the 84 abused young people were aged between five and 15 years and had all experienced sexual abuse involving physical contact. The 84 nonabused young people, enrolled in the study during 1989 - 1991, were of similar age and gender and were drawn by stratified random sampling from local schools.

The instruments used to test the hypotheses of this longitudinal study were the:

- Beck Depression Inventory / Children's Depression Inventory
- Piers-Harris Children's Self-Concept Scale / Coopersmith Self-Esteem Inventory
- Revised Children's Manifest Anxiety Scale
- Child Behavior Checklist (CBCL), Youth Self-Report (YSR) and Teacher's Report Form (TRF)
- Hunter Opinions and Personal Expectations Scale (hopefulness and despair measure)
- Children's Attributional Style Questionnaire

- A Life Events Checklist
- Parental Bonding Instrument
- Family Assessment Device
- General Health Questionnaire
- project developed questionnaire on criminal activity, drug use, running away, self-injury, suicidal ideation and attempts, dieting, bingeing and vomiting
- interview covering demographics, court outcome, further abuse, receipt of therapy and future plans

The records of the NSW Department of Community Services were examined for other notifications of child abuse/neglect, records of the NSW Department of Juvenile Justice for crimes committed as juveniles and those of the Victims Compensation Tribunal for compensation for the index sexual abuse event.

6.1.3 *Results*

Of the 84 sexually abused young people, 68 were assessed five years after presentation to Child Protection Units. Of the 84 nonabused young people, five disclosed child sexual abuse and were excluded from analyses. Of the remaining nonabused young people, 75 were assessed. There were no significant differences between abused young people who were decliners and those who were participants. The follow-up rates were quite high, 81% for the abused group and 89% for those nonabused.

6.1.3.1 Potential mediators

There were significant differences between abused and nonabused young people with regard to

- follow-up lag
- highest level of education attained and socio-economic status
- whether they were living with biological parents or not
- mother's mental health
- number of negative life events
- number of parent-figure changes
- parental history of drug/alcohol problems
- seeking therapy

Charges were laid in 44 (52%) of the 84 cases, with 25 (30%) cases resulting in a conviction. Twenty-one abused young people (25%) applied to the Victims Compensation Tribunal and 19 (90%) claims were successful. A diagnosis of Post-Traumatic Stress Disorder and the symptoms of behaviour problems, fear, nightmares and shame or guilt were significantly related to the size of the award in this sample.

There were no significant differences between abused and nonabused young people in terms of

- family functioning
- perceptions of how well their parents cared for and protected them

6.1.3.2 Univariate Analyses

Abused young people were functioning significantly more poorly than nonabused young people in terms of

- sadness/depression
- self-esteem
- anxiety
- levels of hopefulness
- having a more pessimistic attributional style for negative events
- behaviour
- criminal activity
- use of cigarettes, hallucinogens, amphetamines and history of intra-venous drug use
- self-injury
- suicidal ideation and attempts
- bingeing
- self-induced vomiting
- notifications for abuse/neglect and for sexual abuse both before and after the index sexual abuse event

There were no significant differences between abused and nonabused young people on the following measures:

- despair

- attributional style for positive events

6.1.3.3 Adjusted Regression Models

Regression models adjusted for follow-up lag, socio-economic status, changes in parent-figures, mother's mental health, number of negative life events, family functioning, age and sex. After adjustment, there were no significant differences between abused and nonabused young people in terms of hopefulness and drug use. After adjustment, differences between the two groups remained significant for depression, self-esteem, anxiety, total problem behaviour scores on the CBCL and YSR, bingeing, self-harm, suicidal ideation and suicide attempts.

6.1.3.4 Predictive Modelling

Chapter 5 presented the results of predictive modelling via multiple regression. Abuse status was not a significant predictor when offered to each of the predictive models. Significant predictors of outcome included the following *intake variables*: family functioning, mother's mental health, whether parents were employed or not, behaviour scores, prior notifications for neglect, history of parental discord and whether there were caregiver changes or not prior to intake. The classification of the index sexual abuse event as indecent assault and whether there were notifications for sexual abuse prior to the index event also significantly predicted outcome. *Five year follow-up variables* which were significant predictors of outcome were the young person's age, number of negative life events, attributional style, self-esteem, depression, number of parent changes, anxiety, despair, whether there were notifications for abuse/neglect after intake and having a parent with a history of drug/alcohol problems.

6.2 Aims

The aims of this study were

1. To compare sexually abused young people with young people who are not known to have been abused in terms of the following: depression, self-esteem, anxiety, behaviour problems, self-reported criminal activity, drug and alcohol abuse, running away, self-injury, suicidal ideation and attempts, eating problems, hopefulness, despair, negative attributional style and history of revictimisation at

five year review; official criminal records, Department of Community Services involvement and Victims Compensation claims.

2. To predict young people's outcomes at five year follow-up from the following types of potential predictors: (1) demographic variables, (2) characteristics of the index sexual abuse event, (3) information available when children presented to Child Protection Units for sexual abuse i.e. at study intake and (4) from data collected at this five year review.

6.3 Discussion of Hypotheses and Findings

The study hypotheses are listed below and findings are discussed in terms of whether they support the hypotheses.

1. *Psychological state: Sexually abused young people will have significantly poorer scores than their nonabused peers for sadness/depression, self-esteem, anxiety, hopefulness, despair and attributional style.*

This hypothesis was confirmed by the fact that sexually abused young people were more sad/depressed, had lower self-esteem and were more anxious than nonabused young people and this was the case for unadjusted and adjusted results.

This hypothesis was also supported with regard to unadjusted measures of hopefulness and attributional style for negative life events (sample sizes were too small to permit adjustment in the latter). The abused young people were found to be less hopeful and had a more pessimistic attributional style for negative events compared to nonabused young people. This hypothesis was not supported, however, with regard to despair and attributional style for positive events because abused young people did not differ from those nonabused on these measures. There were no published long-term, controlled studies of attributional style, hopefulness or despair to date in sexually abused young people, therefore these findings are the first of their kind.

2. *Behaviour: Sexually abused young people will be more likely than their nonabused peers to have poorer problem behaviour scores, have a hazardous level of alcohol intake, use drugs, diet, binge, self-induce vomiting, run away, self-injure and think about and attempt suicide.*

This hypothesis was generally supported by the findings. Sexually abused young people had significantly higher total, externalising and internalising problem behaviour scores than nonabused young people on the CBCL. This was the case for unadjusted and adjusted scores. On the YSR, the abused young people had higher problem scores than the nonabused young people for all unadjusted and adjusted scores, with the exception of externalising scores, which were not significantly different after adjustment. Unadjusted TRF scores for total problem behaviour and internalising behaviour were significantly higher in the abused group. None of the TRF scores differed significantly between the two groups after adjustment.

There were no significant differences between the two groups in terms of hazardous levels of alcohol intake. Unadjusted analyses showed the abused young people to be more likely to use cigarettes, hallucinogens and amphetamines than nonabused young people. However, these differences were not maintained after adjustment.

Abused and nonabused young people did not differ significantly at a univariate level in terms of their history of dieting. However, the abused young people were more likely to have a history of bingeing and self-induced vomiting when findings were adjusted. Only the findings regarding bingeing remained significant after adjustment.

Running away did not differ significantly between the two groups at a univariate level. It was also interesting to note that there were no significant differences in the numbers of runaways in the two groups who came to the attention of the NSW Department of Community Services.

Self-injury and suicidal ideation and attempts were significantly more common in the abused group than the nonabused group for all time frames on a univariate level. Adjusted results remained significant in that the sexually abused young people were more likely to have self-injured in the last year as well as since study intake. Recent suicidal ideation and suicide attempts since intake also remained significantly more common in the abused group after adjustment.

3. *There will be a higher incidence of criminal convictions, particularly for crimes which are violent and sexual in nature, in adolescents and young adults who were sexually abused as children compared with the nonabused group.*

This hypothesis was not supported by the data since similar proportions of abused and nonabused young people had criminal convictions for all types of crimes and specifically for crimes of violence. None of the abused or nonabused had received convictions for murder or sexual offences. This hypothesis was supported, however, in terms of self-reports of criminal behaviour in that more abused young people admitted to committing crimes than did nonabused young people. However, once adjusted for family functioning and other variables, this difference was not significant.

It may have been the case that insufficient time had elapsed to allow young people to be old enough to have been committing crimes. The mean age of the young people in this study was approximately 15 years, and findings may have been different should the young people have been young adults. A history of notifications for *neglect* and not sexual abuse was significantly related to having a juvenile criminal record in this sample. These findings may not have been anomalous. The link between both physical abuse and neglect, and not sexual abuse, and being arrested for a violent crime after controlling for age, race and gender has been elucidated elsewhere (Maxfield and Widom, 1996).

4. *Mothers of sexually abused young people will be more psychologically distressed at final follow-up and families of sexually abused young people will function more poorly than families in the nonabused group.*

This hypothesis was supported in that mothers of sexually abused young people were more distressed than mothers of nonabused young people. This was the case for the total score on the GHQ, and the somatic complaints and anxiety/insomnia sub-scales. However, there was no difference in the proportions of mothers in the clinical ranges for psychological distress. The aspect of this hypothesis relating to family functioning was not supported in that family functioning did not differ between the abused and the nonabused groups.

5. *Those young people who are more disturbed five years after disclosure of sexual abuse will be from families with poorer family functioning scores.*

There was some support for this hypothesis in that family functioning at intake was a significant predictor of behaviour at five years, however the aspect relating to family functioning at five years was not supported. Other findings of the study lent support to this hypothesis, however, in that other variables which may be representative of family functioning were significantly related to some aspects of outcome. For example:

- Juvenile criminal convictions was predicted by prior notifications for neglect,
- Self-injury in the last year was related to the number of parent-figure changes since intake
- Self-injury since study intake was predicted by notifications for abuse or neglect after study intake
- Mother's mental health at intake predicted recent suicidal ideation at five years
- Parental drug use was one of the predictors of suicide attempts since study intake
- Predictors of bingeing included having a history of parental discord prior to intake

- Self-induced vomiting at five years was predicted by having a parent with a history of drug/alcohol problems
- Having notifications for abuse/neglect after study intake was predicted by whether parent/s were employed or not at intake and whether there were one or more caregiver changes prior to intake
- Subsequent notifications for sexual abuse alone were partly predicted by notifications for sexual abuse prior to study intake.

It was notable that the standard measure of family functioning used in this study was not generally related to outcome. Measures of family functioning are notoriously difficult to develop. Furthermore, it may have been more appropriate for the young people to have provided ratings of family functioning than parents to minimise socially desirable responses by mothers. In a nine year follow-up of sexually abused young people, young people's ratings were significantly related to outcome, to the exclusion of mothers' ratings (Swanston et al., unpublished). It was the experience of this researcher that the families in the abused group presented as more dysfunctional than those in the nonabused group. However, the Family Assessment Device may not have been the ideal tool for this sample.

Care-giver changes and parent-figure changes were significant predictors of outcome. There seems to be a need to encourage the stabilisation of young people's living situations with the aim of reducing the number of changes in care-givers. Perhaps the involvement of parent-figures in ending and beginning relationships impeded them from being able to offer consistent support to the young people.

6. *Baseline data collected at the time of abuse disclosure such as family demographics and characteristics of the sexual abuse will predict depression, self-esteem, anxiety, hopefulness, despair, attributional style, behaviour, criminal activity, bingeing, self-induced vomiting, self-injury, suicidal ideation and attempts.*

This hypothesis was supported at a *univariate* level based on the following associations:

- Sadness or depression at five years was related to having the index sexual abuse categorised as sexual assault
- The categories of sexual assault and attempted indecent assault were related to poor self-esteem at five years
- Sexual assault was related to anxiety
- Hopefulness was related to attempted sexual assault
- Self-injury in the last 12 months and since intake was related to the category of indecent assault
- Attempted sexual assault was related to bingeing.

This hypothesis was not supported, however, by *multivariate* analyses since none of the demographic or abuse related variables were significant predictors of psychological or behavioural outcome. The notable exception to this result was that the young person's age at five year follow-up was one of the predictors of suicide attempts since study intake. This finding is in keeping with reports from the Australian Bureau of Statistics (1996) which show that younger children rarely commit suicide and that adolescents and young adults are much more likely to do so.

The number of negative life events experienced by the young person and their attributional style, particularly for negative events, were significant predictors of depression, self-esteem and anxiety. It would thus appear that self-blame may be a key predictor of psychological outcome. This finding formalises what theorists have posited via the Traumagenic Dynamics (Finkelhor and Browne, 1985) and cognitive processing models (e.g. Jehu, Klassen and Gazan, 1986). Using a life events model, child sexual abuse may be viewed as a negative life event, where the child's reaction to this event determines their psychological adjustment (Kumar, Steer and Deblinger, 1996). The association of despair (having negative expectations for the personal future; Nunn, 1996) and anxiety (hope under threat; Nunn, 1996) with some outcomes are also related to this.

The prominent role of depression in self-injury, suicidal ideation and attempted suicide has been established elsewhere (Brent et al., 1986). It may be that while the contemplation of suicide is closely linked to depression in young people, their actual attempts to take their own lives may be linked to other factors, including increased anxiety. This is consistent with the view of Brent et al. that hopelessness (labelled despair in this thesis) may be an intermediate increment in the scale of suicidal ideation, with non-specific and specific suicidal ideation as its end-points. It was not possible to ascertain whether suicide attempts were used as a means of reducing anxiety throughout the five years since intake to the study, since anxiety was only measured at five year review.

7. *Better psychological functioning will correlate with receipt of therapy for sexual abuse.*

This hypothesis was not supported by the data, in fact, the reverse was found to be true. Young people who had received therapy performed more poorly than those who did not in terms of self-esteem, anxiety, behaviour, self-injury since study intake, suicide attempts since study intake and self-induced vomiting (at a univariate level). It would appear that the sexual abuse experience, and other problems in the case of the nonabused young people, were still affecting the young people up to five years later and thus those who were more disturbed were more likely to have received or to be currently receiving therapy.

It must be stated that treatment varied greatly in terms of frequency, duration, focus, style and quality. This made it quite difficult to draw any conclusions about the effectiveness of types of intervention because comparison was not able to be made across types. These findings reinforce the need for further development of treatment programs for sexually abused young people based on empirically validated approaches.

8. *Sexually abused young people who received therapy are more likely to receive Victims' Compensation Tribunal (VCT) awards.*

This hypothesis was not supported by the data in that there was no significant relationship between receiving therapy and being awarded Victims' Compensation. This may have been owing to the fact that therapists were sometimes hesitant to inform their clients of their eligibility for compensation. Some of the reasons given in the VCT files for delays in lodging applications were that therapists feared that if their clients applied for compensation, perpetrators would use this as an argument in defence of charges against them.

9. *The size of Victims' Compensation Tribunal awards will be related to the severity of the abuse.*

Sample sizes were too small to enable this type of analysis to be conducted. Furthermore, it would have also been of interest to compare VCT awards with awards for other injuries such as those arising from motor vehicle accidents and being the victims of other crimes. Since the Victims' Compensation system is completely different from the system of litigation, for example, compensation awards are capped, this comparison was unable to be made.

While the size of the award was not able to be related to the severity of the abuse, certain symptoms of distress were significantly related to the amount awarded. These symptoms were behaviour problems, fear, nightmares and shame or guilt. It was of interest that these symptoms and the presence of Post-traumatic Stress Disorder (PTSD), a "recognised disorder or illness", one of the prerequisites for a successful application, were significantly associated with the size of the award. Clearly the presence of distress in the young person at the time of the application was used as an appropriate means of gauging awards.

In case summaries prepared by clerks for the Tribunal Magistrate, the listing of PTSD in the absence of such a diagnosis from a qualified professional was of concern. It would seem that registry staff may have been confused by lists of symptoms, rather than relying on the presence of a specific diagnosis. This problem could be overcome by having a trained psychiatrist or clinical psychologist available to review VCT claims.

The potential positive influence of Victims' Compensation should not go unremarked. It should be noted that 90% of the abused young people who applied for compensation received it, compared to the 30% of sexual abuse cases which resulted in a conviction against the offender. Given that 11% of cases were perpetrated by an unidentified stranger, there is still a large discrepancy in these proportions. The award of Victims' Compensation in the absence of identification or conviction of an offender can certainly be

considered to be beneficial beyond compensation for suffering per se. Anecdotally, some of the young people and their parents felt that the receipt of compensation was invaluable in terms of validating the young person's experience.

10. Young people for whom the Department of Community Services have received further notifications will have poorer scores on the psychological and behavioural measures than other sexually abused young people.

This hypothesis was not supported by the data in terms of psychological functioning. However, notifications for abuse and/or neglect after the index abuse were a significant predictor of self-injury since study intake.

11. Young people who were the subject of more than one notification to the Department of Community Services will be more likely to have criminal records.

This hypothesis was supported by the data. Young people with prior notifications for neglect were more likely to have received juvenile criminal convictions.

6.4 Limitations of the study

Some of the limitations of the study may have included sample size, selection bias, comparability of the nonabused group, the large number of analyses and the possibility of chance findings and problems with the choice of measures. Small sample sizes were a problem, for example, in exploring Victims Compensation outcomes. A larger group of claimants would have enabled multivariate analyses to be carried out.

The abused young people in this study all presented to Child Protection Units for the sexual abuse hence they were not randomly selected. Therefore, they may represent the more severe end of the spectrum of child sexual abuse, which may cast doubts on the generalisability of the results. Other aspects of selection bias may exist in that these children reported the abuse and presented for treatment. Thus the results may not necessarily be generalisable to the population of sexually abused children who never

report the abuse. Also, because treatment varied significantly in terms of duration, frequency, focus, style and quality, the influence of treatment on outcome was difficult to establish. Referral of young people to treatment at follow-up was ethically mandated but may have interfered with findings by altering young people's psychological and behavioural trajectories.

There were some problems with the comparability of the nonabused group in that these young people were from a higher socio-economic status than the abused young people. Some of the nonabused children were chosen from a selective school, which may have contributed to raising the overall socio-economic status (SES) of the group. Behaviour problems, for example, have been associated with SES (Verhulst and Althaus, 1988) so it is important to adjust for SES in analyses. While attempts were made to take differences in SES into account via multiple regression modelling, however, there may be some aspects of being from higher socio-economic status which were not taken into account with the measures used in the study. The groups may also have benefited from matching on other factors such as ethnicity, number of siblings and number of parents living in the home. However, some of these factors may also have changed over time. Since this study was a further stage of a long-term follow-up project, where the nonabused group was already established, problems in the nonabused group were largely inherited or arose from the pattern of attrition among participants over the five years of the study.

Nonabused young people who disclosed sexual abuse were removed from analyses, however, there may still have been some young people who had experienced sexual abuse but who did not disclose it to researchers. While this may have led to some difficulties in comparing the abused and nonabused young people, it is likely that the presence of any abused young people in the "nonabused" group would strengthen the findings of the study in that results would tend towards the null hypothesis. If this were the case, significant findings would be even more meaningful.

Due to the large number of analyses which were conducted, and since the significance level was set at .05, a number of significant differences may have resulted from chance. The choice of measures may also have been problematic in that different instruments

were used for different age groups. While z-scores were calculated for pairs of related measures, no two measures will ever be exactly comparable. The receipt of therapy may also have been an indicator variable for other factors, although many of these factors such as family functioning and abuse characteristics were assessed in an attempt to counter this.

A further problem with the study was that the different age groups were combined for analyses. There is some indication that developmental patterns emerge when samples are divided on the basis of major age groups such as pre-school- and school-ages (Kendall-Tackett, 1993). An attempt was made to take age into account via multiple regression modelling since sample sizes would not have been sufficiently large to allow multivariate modelling within age groups.

6.5 Strengths of the study

The strengths of this study were that it was long-term, prospective, involved substantiated sexual abuse, included a comparison cohort, took into account mediating factors, utilised multiple data sources, relied on standardised measures and had a high follow-up rate. It has been the only study to date which has followed up sexually abused young people for five years from the official disclosure of the abuse and where the sexual abuse was limited to that involving physical contact and which was substantiated by clinicians and extensively documented.

The study was well designed in that the abused group was compared to a group of nonabused young people which was similar in gender and age, from a non-clinical population and drawn from stratified random sampling from the community. The method of analysis took into account differences between the abused and nonabused young people via multivariate regression modelling. Furthermore, the data were comprehensive in that they were collected from the young people themselves as well as parents, teachers and official records. Measures were valid, reliable and widely used, allowing results to be easily compared to other work. The follow-up rates were quite acceptable, 81% for the abused group and 89% for the nonabused group.

6.6 Suggestions for future research

This study focused on a follow-up five years after presentation for sexual abuse. Young people were aged between nine and twenty-two years at this time. It may be that this time period was insufficient to allow certain effects of the abuse to manifest themselves. This “sleeper effect” has been discussed in the literature (Kendall-Tackett, 1993) and requires further examination via longer-term prospective studies. While initially appearing to have been resolved, trauma may resurface later in life when triggered by major life events such as marriage, divorce, the birth of a child, death of a family member, illness or retirement (Herman, 1997). It would also have been of interest to document whether repeat victimisation occurs with regard to other types of crimes.

Gender is an important variable which requires more comprehensive study. Ideally predictors of the different outcomes would be examined separately for each gender. Owing to the small number of males in this study, this was not possible. Gender is strongly related to another area which begs further research, that of the cultural implications of sexual abuse. The importance of virginity within some cultures should not be under-estimated. The impact of sexual abuse on young people in certain cultures can have severe ramifications for the treatment they receive from their immediate and extended families, their status in their community and eligibility for marriage. These factors, in turn, can heighten the experience of self-blame and shame by a child and their family, thereby reducing the likelihood that they will seek access to treatment and support. In this study, for example, one father was adamant that his daughter was not affected by the sexual abuse because her hymen was intact. Another child did not participate in the study and did not return for follow-up treatment after presenting to the Child Protection Unit because her mother did not want the child’s father to find out about the sexual abuse. This mother feared that if the abuse became known, the father would react violently towards the child and that they would be ostracised by their extended family and community.

Other areas requiring further study are the effects of a child’s sexual abuse upon their non-offending siblings and fathers. While mothers’ child sexual abuse was examined here, it would also have been of interest to explore non-offending fathers’ experiences

of child sexual abuse. The effectiveness of specific types of treatment within certain populations of sexually abused children would also be of interest. Ideally, a large, multi-centred follow-up of children with documented sexual abuse would be conducted and young people would be followed up into their 30s and 40s to examine emotional and behavioural trajectories (including criminal activity and sexual functioning) throughout adolescence, young adulthood and adulthood, including their own parenting practices and the influences of other life events and treatment would also be explored.

The key finding that attributional style was associated with depression, self-esteem and anxiety was only able to be described with certainty in the younger study participants. Ideally, in future work, an appropriate form of the Children's Attributional Style Questionnaire would be administered to older participants.

6.7 Conclusions

The effects of child sexual abuse continue to be manifest for some years afterwards. Five years after presentation for child sexual abuse, striking differences emerged between sexually abused young people and a group of their non-abused peers. Even when variations in age and gender, follow-up lag, socio-economic status, number of parent changes, family functioning, mother's mental health and number of negative life events were taken into account, differences in the behaviour and psychological functioning of abused and nonabused young people remained significant. Sexually abused young people were significantly more dysfunctional than their nonabused peers in terms of their behaviour and psychological states.

Variables which predicted the young people's behavioural and psychological outcomes were the number of negative life events that they had experienced, attributional style, mother's mental health, parental drug and alcohol history, family functioning at intake, parent-figure changes, history of parental discord and the child's history of other notifications for abuse and/or neglect. Logically, young people's psychological states were also predictive of their behaviour. Behaviour scores at intake contributed to predicting behaviour scores at five year review.

6.8 Implications

Given the significant differences between the abused and nonabused groups, and the types of variables which were significant predictors of outcome, these predictor variables may have mediated outcome in the sexual abuse group.

There are six implications of these findings:

1. Difficulties associated with child sexual abuse continue for some years after the abuse event.
2. Child sexual abuse needs to be considered as a possible antecedent of behaviour and psychological difficulties in young people.
3. Treatment and monitoring should continue for some years after the abuse.
4. Treatment may need to be directed more towards young people's psychological states rather than focus specifically on the sexual abuse. For example, generic modes of treatment such as rehearsal and catharsis may not be as effective as those which address specific sequelae of child sexual abuse, for example, depression.
5. Family and parent functioning may need to be addressed early in order to prevent some of the behavioural and psychological difficulties associated with the long-term outcome of child sexual abuse. Early treatment of parents' drug and alcohol problems may also contribute to preventing some of the long-term associations of sexual abuse in their children. Stability of young people's living situations may need to be addressed.
6. Early intervention with regard to young people's attributional styles may also enhance psychological adjustment by improving levels of sadness/depression, self-esteem and anxiety. There may also need to be ongoing support for these young people in order for them to better withstand the impact of negative life events.

Appendices

Appendix 1 - Project Developed Health Questionnaire

ID No. _____

Date: _____

The following questions are about your health. Please circle the number that describes you best.

1. In general, how would you describe your health?

excellent 1
good 2
fair.. 3
poor 4

2. At the moment, do you think you are:

underweight 1
about the right weight 2
overweight 3

3. In the last year, have you gone on diets to lose weight?

never 1
1-4 times 2
5-10 times 3
more than 10 times 4
I am always dieting 5

4. In the last year, have you gone on an eating binge where you felt you could not stop?

never 1
1-4 times 2
5-10 times 3
more than 10 times 4
I am always bingeing 5

5. In the last year, have you vomited (thrown up) after eating to try to lose weight?

never 1
once a month or less 2
2-3 times a month.. 3
once a week 4
2 or more times a week 5

Appendix 1

Some of the following questions may or may not be relevant to you. Please answer them as honestly as you can.

1. How often do you use the following drugs (without a doctor telling you to)?
Please tick the answer that applies to you for each drug.

	Daily	Weekly (please write the number of days)	About 1-3 times a month	Every few months	1 or 2 times in the last 12 months	Since you were _____ but not in the last 12 months	Never
Cigarettes							
Alcohol							
Marijuana (pot)							
Pills/downers e.g. valium, serepax							
Inhalants (sniffing) e.g. petrol, sprays							
Trips/LSD/Acid							
Ecstasy							
Speed							
Cocaine							
Heroin							
Codeine, morphine or other opiates							

For the following questions, please circle the number that describes you best.

2. Do you inject drugs (without a doctor telling you to)?

- Daily 1
- Weekly 2
- 1-3 times a month.. 3
- Every few months 4
- Once or twice a year..... 5
- In the past but not in the last 12 months.... 6
- Never 7

3. If you drink (more than just sips or tastes), what do you normally drink?

- Light beer 1
- Beer

Appendix 5 - Predictors: Univariate Analyses

Throughout these tables, the symbol * denotes the presence of unequal variance.

Table 5.1: Relationship of demographic variables to depression

Potential predictor	Significance
Age at five year follow-up	R = .19, n = 136; p = .03
Follow-up lag	R = .11, n = 136; p = .22
Sex	t = - 1.18, df = 134; p = .24
Socio-economic status at intake	F _{2, 132} = 1.96, p = .15
Number of siblings at follow-up	R = - .05, n = 131; p = .55
Mother's age at intake	R = .03, n = 131; p = .76
Father's age at intake	R = - .06, n = 104; p = .59
Living situation (biological parent or not) at follow-up	t = - 1.40, df = 134; p = .16

Table 5.2: Relationship of sexual abuse variables to depression

Potential predictor	Significance
Age at onset of abuse	R = .12, n = 60; p = .36
Frequency of abuse	F _{2,55} = .45; p = .64
Duration of abuse	F _{2,56} = .40; p = .67
Severity of abuse	F _{3,54} = .19; p = .90
Violence used	t = .13, df = 59; p = .89
Intrafamilial abuser	t = - 1.21, df = 59; p = .23
Abuser was parent figure or not	t = -.83, df = 59; p = .41
Abuser living in the home	t = .23, df = 59; p = .82
Physical signs consistent with sexual abuse	t = .13, df = 49; p = .90
More than one abuser	t = -.23, df = 56; p = .82
Coercion	
Persuasion or use of adult authority	t = .82, df = 59; p = .42
Bribes	t = 1.08, df = 59; p = .29
Verbal threats	t = .13, df = 59; p = .89
Physical force	t = -.10, df = 59; p = .92
Parent's reaction to child's disclosure (neutral/negative or positive)	t = - .41, df = 57; p = .68
Harassment by abuser	t = -.32, df = 59; p = .75
Any contact with the abuser	t = - 2.57, df = 21, p = .02
Charges filed against abuser	t = .30, df = 54; p = .77
Legal definition of type of sexual abuse experienced	
Sexual assault	t = - 2.30, df = 55; p = .03
Attempted sexual assault	t = 1.74, df = 44; p = .09
Indecent assault	t = - .48, df = 51; p = .63
Attempted indecent assault	t = .95, df = 50; p = .35
Court involved	t = .57, df = 56; p = .57
Receipt of therapy	t = - 3.14, df = 129; p = .002
Reabuse	t = .46, df = 55; p = .64
Mother's child sexual abuse	t = - .43, df = 113; p = .66

Table 5.3: Relationship of intake variables to depression

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Past loss	$t = -.29, df = 59; p = .77$
Care-giver changes prior to intake	$F_{2,58} = .21; p = .81$
Supportive relationships present	$F_{3,54} = .25; p = .86$
Previous abuse/neglect (parent informant)	$t = -1.58, df = 59; p = .12$
Social worker's rating of family functioning	$F_{4,41} = 2.13; p = .10$
Social worker's rating of mother-child relationship	$F_{4,41} = .69; p = .60$
Parental discord	$t = 1.01, df = 59; p = .99$
Parent psychiatric history	$t = -.17, df = 59; p = .86$
Parental alcohol abuse	$t = 1.16, df = 58; p = .25$
Parental ill health	$t = 1.19, df = 129; p = .24$
Parent/s employed or not	$t = 1.01, df = 59; p = .99$
Mother's EPQ scores	
Psychoticism	$R = .13, n = 134; p = .14$
Extraversion	$R = -.09, n = 134; p = .29$
Neuroticism	$R = .21, n = 134; p = .02$
Lie Scale	$R = .003, n = 134; p = .97$
Mother's mental health (GHQ score)	$R = .15, n = 134; p = .08$
Family functioning	$R = .05, n = 133; p = .58$
Depression	$R = .37, n = 119; p < .001$
Self-esteem	$R = -.37, n = 130; p < .001$
Behaviour	$R = .24, n = 135; p = .004$

Table 5.4: Relationship of five year follow-up variables to depression

Potential predictor	Significance
Pregnant in last 12 months	$t = 1.61, df = 5; p = .17$
Having support person	$t = 1.60, df = 17; p = .12$
Having parent(s) with drug/alcohol problem	$t = -2.34, df = 108; p = .02$
Changes in parent-figures	$R = .18, n = 135; p = .04$
Mother's mental health	$R = .004, n = 126; p = .97$
Family functioning	$R = .23, n = 124; p = .009$
Number of negative life events in last 12 months	$R = .49, n = 135; p < .001$
Attributional style	
Negative events	$R = .53, n = 65; p < .001$
Positive events	$R = -.43, n = 65; p < .001$
Total	$R = -.59, n = 65; p < .001$
Criminal offences committed by young person after index abuse for which conviction received	$t = -1.07, df = 132; p = .29$
Notifications prior to index abuse	
Of all types, including neglect	$t = -.98, df = 134; p = .33$
Sexual abuse	$t = -1.31, df = 134; p = .19$
Emotional abuse	$t = -1.41, df = 134; p = .16$
Physical abuse	$t = -.12, df = 134; p = .91$
Neglect	$t = -1.08, df = 134; p = .28$
Notifications after index abuse	
Of all types, including neglect	$t = -1.64, df = 134; p = .11$

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Sexual abuse	t = -.07, df = 34; p = .95
Emotional abuse	t = -.86, df = 134; p = .39
Physical abuse	t = .71, df = 134; p = .48
Neglect	t = .76, df = 134; p = .45
Self-harm	t = -2.19, df = 134; p = .03
Running away	t = .34, df = 134; p = .73
Child made a State Ward	t = .58, df = 134; p = .56
History of accommodation placements by DOCS	t = -1.44, df = 134; p = .15
Victims Compensation Application	t = .56, df = 59; p = .58

Table 5.5: Relationship of demographic variables to self-esteem

Potential predictor	Significance
Age at five year follow-up	R = - .17, n = 135; p = .05
Follow-up lag	R = - .11, n = 135; p = .20
Sex	t = 1.62, df = 133; p = .11
Socio-economic status at intake	F _{2,131} =1.43; p = .24
Number of siblings at follow-up	R = .09, n = 131; p = .31
Mother's age at intake	R = - .05, n = 130; p = .58
Father's age at intake	R = .02, n = 103; p = .86
Living situation (biological parent or not) at follow-up	t = 1.75, df = 133; p = .08

Table 5.6: Relationship of sexual abuse variables to self-esteem

Potential predictor	Significance
Age at onset of abuse	R = - .04, n = 60; p = .75
Frequency of abuse	F _{2,55} =.46; p = .64
Duration of abuse	F _{2,56} =.07; p = .93
Severity of abuse	F _{3,54} =.34; p = .80
Violence used	t = - .58, df = 59; p = .57
Intrafamilial abuser	t = 1.36, df = 59; p = .18
Abuser was parent figure or not	t = -.47, df = 59; p = .64
Abuser living in the home	t = .05, df = 59; p = .96
Physical signs consistent with sexual abuse	t = -.37, df = 49; p = .71
More than one abuser *	t = -3.03, df = 40; p = .004
Coercion	
Persuasion or use of adult authority	t = -.91, df = 59; p = .37
Bribes *	t = -1.97, df = 14; p = .07
Verbal threats	t = -.39, df = 59; p = .70
Physical force	t = -.03, df = 59; p = .97
Parent's reaction to child's disclosure (neutral/negative or positive)	t = .23, df = 57; p = .82
Harassment by abuser	t = -.52, df = 59; p = .60
Any contact with the abuser	t = 3.41, df = 57; p = .001
Charges filed against abuser	t = .34, df = 54; p = .73
Legal definition of type of sexual abuse	

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
experienced	
Sexual assault *	t = 4.67, df = 11; p = .001
Attempted sexual assault	t = -1.07, df = 57; p = .29
Indecent assault	t = 1.14, df = 51; p = .26
Attempted indecent assault *	t = - 4.45, df = 8; p = .002
Court involved	t = -1.43, df = 56; p = .159
Receipt of therapy	t = 3.25, df = 67; p = .002
Reabuse *	t = -3.34, df = 6; p = .02
Mother's child sexual abuse	t = .61, df = 113; p = .54

* unequal variance

Table 5.7: Relationship of intake variables to self-esteem

Potential predictor	Significance
Past loss	t = .91, df = 59; p = .37
Care-giver changes prior to intake	F _{2,58} = .27; p = .76
Supportive relationships present	F _{3,54} = .81; p = .50
Previous abuse/neglect (parent informant)	t = 1.89, df = 42; p = .07
Parental discord	t = -.18, df = 59; p = .86
Parent psychiatric history	t = -.09, df = 59; p = .93
Parental alcohol abuse	t = -1.86, df = 58; p = .07
Parental ill health	t = -.77, df = 128; p = .45
Social-worker's rating of family functioning	F _{4,41} = 2.41; p = .07
Social-worker's rating of mother-child relationship	F _{4,41} = 1.09; p = .38
Parent/s employed or not	t = 1.81, df = 132; p = .07
Mother's EPQ scores	
Psychoticism	R = - .03, n = 133; p = .71
Extraversion	R = .02, n = 133; p = .85
Neuroticism	R = - .10, n = 133; p = .24
Lie Scale	R = .06, n = 133; p = .46
Mother's mental health (GHQ score)	R = - .12, n = 133; p = .16
Family functioning	R = - .18, n = 132; p = .04
Depression	R = - .31, n = 118; p = .001
Self-esteem	R = .39, n = 129; p < .001
Behaviour	R = - .24, n = 134; p = .005

Appendix 5 - Predictors: Univariate Analyses

Table 5.8: Relationship of five year follow-up variables to self-esteem

Potential predictor	Significance
Pregnant in last 12 months	t = -2.44, df = 132; p = .02
Having support person or not	t = -2.73, df = 117; p = .007
Having parent(s) with drug/alcohol problem	t = 1.58, df = 17; p = .13
Changes in parent-figures	R = - .10, n = 134; p = .25
Mother's mental health	R = - .03, n = 126; p = .73
Family functioning	R = - .34, n = 124; p < .001
Number of negative life events in last 12 months	R = - .45, n = 134; p < .001
Attributional style	
Negative events	R = - .55, n = 65; p < .001
Positive events	R = .54, n = 65; p < .001
Total	R = .68, n = 65; p < .001
Criminal offences committed by young person after index abuse for which conviction received	t = .75, df = 131; p = .45
Notifications prior to index abuse	
Of all types, including neglect	t = .29, df = 133; p = .78
Sexual abuse	t = .72, df = 133; p = .48
Emotional abuse	t = .39, df = 133; p = .70
Physical abuse	t = -.89, df = 133; p = .38
Neglect	t = .31, df = 133; p = .76
Notifications after index abuse	
Of all types, including neglect	t = 2.10, df = 133; p = .04
Sexual abuse	t = .47, df = 133; p = .64
Emotional abuse	t = 1.56, df = 133; p = .12
Physical abuse	t = -.45, df = 133; p = .65
Neglect	t = .03, df = 133; p = .97
Self-harm	t = .96, df = 133; p = .34
Running away	t = 1.03, df = 133; p = .31
Child made a State Ward	t = .35, df = 133; p = .72
History of accommodation placements by DOCS	t = 2.02, df = 133; p = .05
Victims Compensation Application	t = -.79, df = 59; p = .43

Table 5.9: Relationship of demographic variables to anxiety

Potential predictor	Significance
Age at five year follow-up	R = .12, df = 129; p = .17
Follow-up lag	R = .05, df = 129; p = .56
Sex	t = -1.37, df = 127; p = .17
Socio-economic status at intake	F _{2,125} =1.70; p = .19
Number of siblings at follow-up	R = .04, n = 124; p = .69
Mother's age at intake	R = - .002, n = 124; p = .98
Father's age at intake	R = - .09, n = 98; p = .37
Living situation (biological parent or not) at follow-up	t = -2.08, df = 127; p = .04

Appendix 5 - Predictors: Univariate Analyses

Table 5.10: Relationship of sexual abuse variables to anxiety

Potential predictor	Significance
Age at onset of abuse	R = .09, n = 55; p = .50
Frequency of abuse	F _{2,50} = .24; p = .79
Duration of abuse	F _{2,51} = .16; p = .85
Severity of abuse	F _{3,49} = .11; p = .96
Violence used	t = .22, df = 52; p = .82
Intrafamilial abuser	t = -.87, df = 54; p = .39
Abuser was parent figure or not	t = -.23, df = 54; p = .82
Abuser living in the home	t = .29, df = 54; p = .77
Physical signs consistent with sexual abuse	t = .46, df = 44; p = .65
More than one abuser	t = 1.39, df = 51; p = .17
Coercion	
Persuasion or use of adult authority	t = -.06, df = 54; p = .95
Bribes	t = 1.44, df = 54; p = .16
Verbal threats	t = -.13, df = 54; p = .90
Physical force	t = .16, df = 54; p = .87
Parent's reaction to child's disclosure (neutral/negative or positive)	t = .40, df = 52; p = .69
Harassment by abuser	t = -.58, df = 54; p = .56
Any contact with the abuser	t = -2.57, df = 52; p = .01
Charges filed against abuser	t = -.83, df = 49; p = .41
Legal definition of type of sexual abuse experienced	
Sexual assault	t = -3.65, df = 15; p = .002
Attempted sexual assault	t = 1.07, df = 52; p = .29
Indecent assault	t = -1.07, df = 47; p = .29
Attempted indecent assault	t = 1.30, df = 46; p = .20
Court involved	t = 1.40, df = 51; p = .17
Receipt of therapy	t = -2.77, df = 123; p = .006
Reabuse	t = .92, df = 52; p = .36
Mother's child sexual abuse	t = -.11, df = 108; p = .91

Table 5.11: Relationship of intake variables to anxiety

Potential predictor	Significance
Past loss	t = -1.27, df = 54; p = .21
Care-giver changes prior to intake	F _{2,53} = .49; p = .61
Supportive relationships present	F _{3,49} = .66; p = .58
Previous abuse/neglect (parent informant)	t = -1.07, df = 54; p = .29
Social-worker's rating of family functioning	F _{4,41} = 3.20; p = .02
Social-worker's rating of mother-child relationship	F _{4,41} = 2.12; p = .10
Parental discord	t = 1.73, df = 54; p = .09
Parent psychiatric history	t = .50, df = 54; p = .62
Parental alcohol abuse	t = 2.15, df = 53; p = .04
Parental ill health	t = .55, df = 122; p = .58
Parent/s employed or not	t = -1.57, df = 20; p = .13

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Mother's EPQ scores	
Psychoticism	R = - .05, n = 127; p = .54
Extraversion	R = - .10, n = 127; p = .26
Neuroticism	R = .19, n = 127; p = .03
Lie Scale	R = .04, n = 127; p = .66
Mother's mental health (GHQ score)	R = .13, n = 127; p = .16
Family functioning	R = .10, n = 126; p = .27
Depression	R = .33, n = 112; p < .001
Self-esteem	R = - .33, n = 123; p < .001
Behaviour	R = .16, n = 128; p = .08

Table 5.12: Relationship of five year follow-up variables to anxiety

Potential predictor	Significance
Pregnant in last 12 months	t = 2.60, df = 126; p = .01
Having support person or not	t = 1.51, df = 117; p = .13
Having parent(s) with drug/alcohol problem	t = -1.97, df = 108; p = .05
Changes in parent-figures	R = .20, n = 128; df = .02
Mother's mental health	R = - .02, n = 119; p = .83
Family functioning	R = .24, n = 117; p = .008
Number of negative life events in last 12 months	R = .51, n = 128; p < .001
Attributional style	
Negative events	R = .45, n = 65; p < .001
Positive events	R = - .28, n = 65; p = .02
Total	R = - .45, n = 65; p < .001
Criminal offences committed by young person after index abuse for which conviction received	t = -.25, df = 125; p = .80
Notifications prior to index abuse	
Of all types, including neglect	t = -.77, df = 127; p = .44
Sexual abuse	t = -.52, df = 127; p = .60
Emotional abuse	t = -1.07, df = 127; p = .29
Physical abuse	t = -.94, df = 127; p = .35
Neglect	t = -.20, df = 127; p = .84
Notifications after index abuse	
Of all types, including neglect	t = -1.64, df = 127; p = .10
Sexual abuse	t = .08, df = 127; p = .98
Emotional abuse	t = -1.48, df = 127; p = .14
Physical abuse	t = .56, df = 127; p = .58
Neglect	t = .56, df = 127; p = .58
Self-harm	t = -.70, df = 127; p = .49
Running away	t = -.50, df = 127; p = .62
Child made a State Ward	t = .69, df = 127; p = .49
History of accommodation placements by DOCS	t = -1.87, df = 127; p = .06
Victims Compensation Application	t = .28, df = 54; p = .78

Table 5.13: Relationship of demographic variables to hopefulness

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Age at five year follow-up	R = - .04, n = 51; p = .79
Follow-up lag	R = - .09, n = 51; p = .54
Sex	t = -.02, df = 49; p = .98
Socio-economic status at intake	F _{2,47} =1.87; p = .17
Number of siblings at follow-up	R = .07, n= 49; p = .62
Mother's age at intake	R = .21, n= 47; p = .15
Father's age at intake	R = .36, n = 38; p = .03
Living situation (biological parent or not) at follow-up	t = .77, df = 49; p = .44

Table 5.14: Relationship of sexual abuse variables to hopefulness

Potential predictor	Significance
Age at onset of abuse	R = .18, n = 22; p = .42
Frequency of abuse	F _{2,19} =.07; p = .94
Duration of abuse	F _{2,18} =.51; p = .61
Severity of abuse	F _{3,18} =.71; p = .56
Violence used	t = -.88, df = 19; p = .39
Intrafamilial abuser	t = 1.83, df = 19; p = .08
Abuser was parent-figure *	t = 1.31, df = 7; p = .23
Abuser living in the home	t = -.68, df = 20; p = .51
Physical signs consistent with sexual abuse	t = .02, df = 15; p = .98
More than one abuser	t = -.06, df = 20; p = .95
Coercion	
Persuasion or use of adult authority	t = .16, df = 20; p = .87
Bribes	t = -.29, df = 20; p = .77
Verbal threats	t = -.62, df = 20; p = .54
Physical force	t = -.86, df = 20; p = .40
Parent's reaction to child's disclosure (neutral/negative or positive)	t = .05, df = 18; p = .96
Harassment by abuser	t = -1.38, df = 20; p = .18
Any contact with the abuser	t = .44, df = 20; p = .66
Charges filed against abuser	t = .59, df = 18; p = .57
Legal definition of type of sexual abuse experienced	
Sexual assault	t = 1.00, df = 19; p = .33
Attempted sexual assault *	t = -2.49, df = 15; p = .03
Indecent assault	t = -.06, df = 18; p = .96
Attempted indecent assault	t = -1.15, df = 17; p = .27
Court involved	t = .22, df = 17; p = .83
Receipt of therapy	t = 1.43, df = 21; p = .17
Reabuse	t = -.15, df = 19; p = .88
Mother's child sexual abuse	t = -.24, df = 39; p = .81

* unequal variance

Appendix 5 - Predictors: Univariate Analyses

Table 5.15: Relationship of intake variables to hopefulness

Potential predictor	Significance
Past loss	t = -.26, df = 20; p = .80
Care-giver changes prior to intake	F _{2,19} = .04; p = .97
Supportive relationships present	F _{3,17} = .42; p = .74
Previous abuse/neglect (parent informant)	t = .40, df = 20; p = .70
Social worker's rating of family functioning	F _{3,17} = .62; p = .61
Social worker's rating of mother-child relationship	F _{3,16} = 1.88; p = .17
Parental discord *	t = 1.39, df = 20; p = .18
Parent psychiatric history *	t = 1.18, df = 20; p = .25
Parental alcohol abuse *	t = .04, df = 19; p = .97
Parental ill health	t = 1.05, df = 47; p = .30
Parent/s employed or not *	t = 1.55, df = 7; p = .17
Mother's EPQ scores	
Psychoticism	R = .11, n = 49; p = .46
Extraversion	R = -.03, n = 49; p = .83
Neuroticism	R = -.11, n = 49; p = .45
Lie Scale	R = -.27, n = 49; p = .06
Mother's mental health (GHQ score)	R = -.17, n = 49; p = .25
Family functioning	R = -.06, n = 48; p = .67
Depression	R = -.43, n = 51; p = .002
Self-esteem	R = .51, n = 51; p < .001
Behaviour	R = -.41, n = 50; p = .003

* unequal variance

Table 5.16: Relationship of five year follow-up variables to hopefulness

Potential predictor	Significance
Pregnant in last 12 months	t = -1.57, df = 49; p = .12
Having support person or not	t = .43, df = 47; p = .67
Having parent(s) with drug/alcohol problem	t = 2.45, df = 45, p = .02
Changes in parent-figures	R = -.21, n = 51; p = .13
Mother's mental health	R = -.001, n = 45; p = .99
Family functioning	R = -.11, n = 44; p = .49
Number of negative life events in last 12 months	R = -.15, n = 51; p = .31
Depression	R = -.61, n = 51; p < .001
Anxiety	R = -.42, n = 51; p = .002
Self-esteem	R = .56, n = 51; p < .001
Behaviour	R = -.38, n = 30; p = .04
Criminal offences committed by young person after index abuse for which conviction received	t = .90, df = 49; p = .38
Notifications prior to index abuse	
Of all types, including neglect	t = 1.24, df = 49; p = .22
Sexual abuse	t = .23, df = 49; p = .82
Emotional abuse	t = .73, df = 49; p = .47
Physical abuse	t = .71, df = 49; p = .48

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Neglect	$t = 1.25, df = 49; p = .22$
Notifications after index abuse	
Of all types, including neglect	$t = 1.96, df = 49; p = .06$
Sexual abuse	$t = 2.06, df = 49; p = .04$
Emotional abuse	$t = 1.01, df = 49; p = .32$
Physical abuse	$t = 1.75, df = 49; p = .09$
Neglect	$t = 2.25, df = 49; p = .03$
Self-harm	$t = 1.41, df = 49; p = .17$
Running away	$t = -.30, df = 49; p = .76$
Child made a State Ward	$t = -.82, df = 49; p = .41$
History of accommodation placements by DOCS	$t = 1.43, df = 49; p = .16$
Victims Compensation Award	$t = .25, df = 20; p = .80$

Table 5.17: Relationship of demographic variables to despair

Potential predictor	Significance
Age at five year follow-up	$R = .10, n = 51; p = .49$
Follow-up lag	$R = -.07, n = 51; p = .61$
Sex	$t = -1.40, df = 49; p = .17$
Socio-economic status at intake	$F_{2,47} = .13; p = .88$
Number of siblings at follow-up	$R = -.16, n = 49; p = .27$
Mother's age at intake	$R = .09, n = 47; p = .54$
Father's age at intake	$R = .19, n = 38; p = .26$
Living situation (biological parent or not) at follow-up	$t = .54, df = 49; p = .59$

Table 5.18: Relationship of sexual abuse variables to despair

Potential predictor	Significance
Age at onset of abuse	$R = .07, n = 22; p = .74$
Frequency of abuse	$F_{2,19} = .11; p = .90$
Duration of abuse	$F_{2,18} = .20; p = .82$
Severity of abuse	$F_{3,18} = .19; p = .91$
Violence used	$t = 1.35, df = 20; p = .19$
Intrafamilial abuser	$t = -1.63, df = 17; p = .12$
Abuser was parent figure or not	$t = -.21, df = 20; p = .83$
Abuser living in the home	$t = .25, df = 20; p = .80$
Physical signs consistent with sexual abuse	$t = -1.22, df = 15; p = .24$
More than one abuser	$t = .68, df = 20; p = .51$
Coercion	
Persuasion or use of adult authority	$t = -.86, df = 20; p = .40$
Bribes	$t = -.12, df = 20; p = .91$
Verbal threats	$t = 1.43, df = 20; p = .17$
Physical force	$t = .43, df = 20; p = .67$
Parent's reaction to child's disclosure (neutral/negative or positive)	$t = -1.04, df = 18; p = .31$
Harassment by abuser	$t = .46, df = 20; p = .65$

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Any contact with the abuser	t = -2.74, df = 20; p = .01
Charges filed against abuser	t = -.26, df = 18; p = .80
Legal definition of type of sexual abuse experienced	
Sexual assault	t = -.65, df = 19; p = .52
Attempted sexual assault	t = 1.59, df = 12; p = .14
Indecent assault	t = -1.58, df = 18; p = .13
Attempted indecent assault	t = .60, df = 17; p = .55
Court involved	t = -.17, df = 17; p = .86
Receipt of therapy	t = -1.73, df = 20; p = .10
Reabuse	t = .77, df = 19; p = .45
Mother's child sexual abuse	t = .84, df = 39; p = .41

Table 5.19: Relationship of intake variables to despair

Potential predictor	Significance
Past loss	t = -.80, df = 20; p = .44
Care-giver changes prior to intake	F _{2,19} = .79; p = .47
Supportive relationships present	F _{3,17} = .60; p = .62
Previous abuse/neglect (parent informant)	t = -1.11, df = 20; p = .28
Social worker's rating of family functioning	F _{3,17} = 1.02; p = .41
Social worker's rating of mother-child relationship	F _{3,16} = .93; p = .45
Parental discord	t = -.11, df = 20; p = .91
Parent psychiatric history	t = -1.46, df = 20; p = .16
Parental alcohol abuse	t = -.21, df = 19; p = .84
Parental ill health	t = 1.85, df = 47; p = .07
Parent/s employed or not	t = -1.13, df = 48; p = .27
Mother's EPQ scores	
Psychoticism	R = - .33, n = 49; p = .02
Extraversion	R = - .29, n = 49; p = .04
Neuroticism	R = .10, n = 49; p = .49
Lie Scale	R = .29, n = 49; p = .05
Mother's mental health (GHQ score)	R = .23, n = 49; p = .11
Family functioning	R = .18, n = 48; p = .21
Depression	R = .52, n = 51; p < .001
Self-esteem	R = - .40, n = 51; p = .003
Behaviour	R = .31, n = 50; p = .03

Appendix 5 - Predictors: Univariate Analyses

Table 5.20: Relationship of five year follow-up variables to despair

Potential predictor	Significance
Pregnant in last 12 months	t = .63, df = 5; p = .56
Having support person or not	t = .61, df = 47; p = .55
Having parent(s) with drug/alcohol problem	t = -1.43, df = 11; p = .18
Changes in parent-figures	R = .16, n = 51; p = .26
Mother's mental health	R = - .004, n = 45; p = .98
Family functioning	R = .25, n = 44; p = .11
Number of negative life events in last 12 months	R = .32, n = 51; p = .02
Depression	R = .78, n=51; p<.001
Anxiety	R = .71, n=51; p<.001
Self-esteem	R = - .69, n= 51; p < .001
Behaviour	R = .53, n = 30; p = .003
Criminal offences committed by young person after index abuse for which conviction received	t = .32, df = 49; p = .75
Notifications prior to index abuse	
Of all types, including neglect	t = -.24, df = 49; p = .81
Sexual abuse	t = .81, df = 49; p = .42
Emotional abuse	t = .37, df = 49; p = .71
Physical abuse	t = -.13, df = 49; p = .90
Neglect	t = -.68, df = 49; p = .50
Notifications after index abuse	
Of all types, including neglect	t = 1.12, df = 49; p = .27
Sexual abuse	t = -.20, df = 49; p = .85
Emotional abuse	t = .96, df = 49; p = .34
Physical abuse	t = .26, df = 49; p = .80
Neglect	t = .47, df = 49; p = .64
Self-harm	t = .76, df = 49; p = .50
Running away	t = .95, df = 49; p = .35
Child made a State Ward	t = -.67, df = 49; p = .50
History of accommodation placements by DOCS	t = .61, df = 49; p = .54
Victims Compensation Application	t = -.70, df = 20; p = .49

Table 5.21: Relationship of demographic variables to behaviour

Potential predictor	Significance
Age at five year follow-up	R = - .16, n = 118; p = .08
Follow-up lag	R = .02, n = 118; p = .83
Sex	t = -.21, df = 116; p = .83
Socio-economic status at intake	F _{2,115} = .44; p = .65
Number of siblings at follow-up	R = - .004, n = 114; p = .96
Mother's age at intake	R = - .20, n = 116; p = .03
Father's age at intake	R = - .20, n = 91; p = .06
Living situation (biological parent or not) at follow-up	t = 1.23, df = 116; p = .22

Table 5.22: Relationship of sexual abuse variables to behaviour

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Age at onset of abuse	R = - .15, df = 55; p = .27
Frequency of abuse	F _{2,50} = .01; p = .99
Duration of abuse	F _{2,52} = .03; p = .97
Severity of abuse	F _{3,49} = .07; p = .98
Violence used	t = 1.40, df = 54; p = .17
Intrafamilial abuser	t = .89, df = 54; p = .38
Abuser was parent figure	t = .66, df = 54; p = .52
Abuser living in the home	t = -1.49, df = 54; p = .14
Physical signs consistent with sexual abuse	t = .37, df = 45; p = .72
More than one abuser	t = -.74, df = 51; p = .46
Coercion	
Persuasion or use of adult authority	t = .53, df = 54; p = .60
Bribes	t = -.84, df = 54; p = .41
Verbal threats	t = .39, df = 54; p = .70
Physical force *	t = 1.29, df = 14; p = .22
Parent's reaction to child's disclosure (neutral/negative or positive)	t = -.69, df = 54; p = .49
Harassment by abuser	t = -.01, df = 52; p = 1.00
Any contact with the abuser	t = -.01, df = 50; p = 1.00
Charges filed against abuser	t = -.99, df = 50; p = .33
Legal definition of type of sexual abuse experienced	
Sexual assault	t = -1.03, df = 50; p = .31
Attempted sexual assault	t = .33, df = 52; p = .74
Indecent assault	t = -2.04, df = 46; p = .05
Attempted indecent assault	(Cell sizes too small)
Court involved	t = .86, df = 52; p = .39
Receipt of therapy	t = -2.93, df = 110; p = .004
Reabuse	t = -.88, df = 49; p = .39
Mother's child sexual abuse	t = -.91, df = 103; p = .36

Table 5.23: Relationship of intake variables to behaviour

Potential predictor	Significance
Past loss	t = -.34, df = 54; p = .74
Care-giver changes prior to intake	F _{2,53} = 1.11; p = .34
Supportive relationships present	F _{3,49} = 1.26; p = .30
Previous abuse/neglect (parent informant)	t = -.15, df = 54; p = .88
Parental discord	t = -1.57, df = 54; p = .12
Social-worker's rating of family functioning	F _{4,41} = .30; p = .88
Social-worker's rating of mother-child relationship	F _{4,41} = .20; p = .94
Parent psychiatric history	t = -.22, df = 54; p = .83
Parental alcohol abuse	t = .63, df = 54; p = .53
Parental ill health	t = 2.09, df = 112; p = .04
Parent/s employed or not	t = -1.21, df = 116; p = .23
Mother's EPQ scores	
Psychoticism	R = .09, n = 117; p = .36

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Extraversion	R = - .16, n = 117; p = .08
Neuroticism	R = .35, n = 117; p <.001
Lie Scale	R = - .19, n = 117; p = .04
Mother's mental health (GHQ score)	R = .30, n = 117; p = .001
Family functioning	R = .36, n = 117; p <.001
Depression	R = .34, n = 101; p <.001
Self-esteem	R = - .23, n = 112; p = .01
Behaviour	R = .53, n = 117; p <.001

Table 5.24: Relationship of five year follow-up variables to behaviour

Potential predictor	Significance
Pregnant in last 12 months	t = .67, df = 109; p = .50
Having support person or not	t = 1.20, df = 95; p = .23
Having parent(s) with drug/alcohol problem	t = -.40, df = 88; p = .69
Changes in parent-figures	R = .17, n = 117; p = .07
Mother's mental health	R = .44, n = 114; p <.001
Family functioning	R = .40, n = 114; p <.001
Number of negative life events in last 12 months	R = .47, n = 111; p <.001
Attributional style	
Negative events	R = .15, n = 64; p = .24
Positive events	R = - .32, n = 64; p = .01
Total	R = - .30, n = 64; p = .01
Criminal offences committed by young person after index abuse for which conviction received	t = .24, df = 114; p = .81
Notifications prior to index abuse	
Of all types, including neglect	t = -1.03, df = 116; p = .31
Sexual abuse	t = -.94, df = 116; p = .35
Emotional abuse	t = -1.19, df = 116; p = .24
Physical abuse	t = -.71, df = 116; p = .48
Neglect	t = .18, df = 116; p = .86
Notifications after index abuse	
Of all types, including neglect	t = -3.46, df = 116; p = .001
Sexual abuse	t = -1.94, df = 116; p = .06
Emotional abuse	t = -3.08, df = 116; p = .003
Physical abuse	t = -2.82, df = 116; p = .006
Neglect	t = -1.10, df = 116; p = .27
Self-harm	t = -1.10, df = 116; p = .28
Running away	t = -1.34, df = 116; p = .18
Child made a State Ward *	t = .18, df = 3; p = .87
History of accommodation placements by DOCS	t = -1.49, df = 116; p = .14
Victims Compensation Application	t = -.73, df = 54; p = .47

Table 5.25: Relationship of demographic variables to criminal convictions

Potential predictor	Significance
---------------------	--------------

Appendix 5 - Predictors: Univariate Analyses

Age at five year follow-up	t = -.59, df = 73 p = .56
Follow-up lag	t = -.13 df = 73; p = .90
Sex	Fisher's Exact Test, p = .43
Socio-economic status at intake	$\chi^2 = 4.94$, df = 2; p = .08
Number of siblings at follow-up	t = -.22, df = 71; p = .83
Mother's age at intake	t = -.29, df = 69; p = .77
Father's age at intake	t = -.06, df = 52; p = .95
Living situation (biological parent or not) at follow-up	Fisher's Exact Test, p = .52

* unequal variance

Table 5.26: Relationship of sexual abuse variables to criminal convictions

Potential predictor	Significance
Age at onset of abuse	t = -.63, df = 34; p = .53
Frequency of abuse	Fisher's Exact Test, p = .49
Duration of abuse	Fisher's Exact Test, p = .47
Severity of abuse	$\chi^2 = 1.91$, df = 3; p = .59
Violence used	Fisher's Exact Test, p = .61
Intrafamilial abuser	Fisher's Exact Test, p = .39
Abuser was parent figure	Fisher's Exact Test, p = .70
Abuser living in the home	Fisher's Exact Test, p = .41
Physical signs consistent with sexual abuse	Fisher's Exact Test, p = .31
More than one abuser	Fisher's Exact Test, p = .89
Coercion	
Persuasion or use of adult authority	Fisher's Exact Test, p = .10
Bribes	Fisher's Exact Test, p = .47
Verbal threats	Fisher's Exact Test, p = .37
Physical force	Fisher's Exact Test, p = .21
Parent's reaction to child's disclosure (neutral/negative or positive)	Fisher's Exact Test, p = .66
Harassment by abuser	Fisher's Exact Test, p = .53
Any contact with the abuser	Fisher's Exact Test, p = .48
Charges filed against abuser	Fisher's Exact Test, p = .11
Legal definition of type of sexual abuse experienced	
Sexual assault	Fisher's Exact Test, p = .88
Attempted sexual assault	Fisher's Exact Test, p = .40
Indecent assault	Fisher's Exact Test, p = .27
Attempted indecent assault	Fisher's Exact Test, p = .25
Court involved	Fisher's Exact Test, p = .48
Receipt of therapy	Fisher's Exact Test, p = .23
Reabuse	Fisher's Exact Test, p = .69
Mother's child sexual abuse	Fisher's Exact Test, p = .62

* unequal variance

Table 5.27: Relationship of intake variables to criminal convictions

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Past loss	Fisher's Exact Test, p = .70
Care-giver changes prior to intake	$\chi^2 = .91$, df = 2; p = .64
Supportive relationships present	$\chi^2 = 10.20$, df = 3; p = .02
Previous abuse/neglect (parent informant)	Fisher's Exact Test, p = .70
Parent's relationship status	$\chi^2 = .55$, df = 4; p = .97
Social worker's rating of family functioning	$\chi^2 = 2.02$, df = 4; p = .73
Social worker's rating of mother-child relationship	$\chi^2 = 2.37$, df = 4; p = .67
Parental discord	Fisher's Exact Test, p = .30
Parent psychiatric history	Fisher's Exact Test, p = .21
Parental alcohol abuse	Fisher's Exact Test, p = .60
Parental ill health	Fisher's Exact Test, p = .34
Parent/s employed or not	Fisher's Exact Test, p = .12
Mother's EPQ scores	
Psychoticism	t = 1.33, df = 71; p = .19
Extraversion	t = 2.09, df = 71, p = .04
Neuroticism	t = - 1.49, df = 71; p = .14
Lie Scale	t = - .35, df = 71; p = .73
Mother's mental health (GHQ score) *	t = -3.17, df = 66; p = .002
Family functioning	t = -1.85, df = 70; p = .07
Depression *	t = -2.79, df = 54; p = .007
Self-esteem	t = 1.84, df = 73; p = .07
Behaviour	t = -1.48, df = 72; p = .14

* unequal variance

Table 5.28: Relationship of five year follow-up variables to criminal convictions

Potential predictor	Significance
Pregnant in last 12 months	Fisher's Exact Test, p = .22
Having support person or not	Fisher's Exact Test, p = .34
Having parent(s) with drug/alcohol problem	Fisher's Exact Test, p = .26
Changes in parent-figures *	t = -3.92, df = 54; p < .001
Mother's mental health	t = .37, df = 64; p = .72
Family functioning	t = -.81, df = 63; p = .42
Number of negative life events in last 12 months	t = -2.37, df = 73; p = .02
Depression	t = -2.19, df = 73; p = .03
Self-esteem	t = 2.01, df = 73; p = .05
Anxiety	t = -2.90, df = 73; p = .005
Behaviour	t = - 1.53, df = 51; p = .13
Attributional style	
Negative events	t = - 2.72, df = 21; p = .01
Positive events	t = 1.01, df = 21; p = .32
Hopefulness	t = .72, df = 47; p = .48
Despair	t = -1.46, df = 47; p = .07
Notifications prior to index abuse	

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Of all types, including neglect	Fisher's Exact Test, p = .10
Sexual abuse	Fisher's Exact Test, p = .
Emotional abuse	Fisher's Exact Test, p = .30
Physical abuse	Fisher's Exact Test, p = .83
Neglect	Fisher's Exact Test, p = .003
Notifications after index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .001
Sexual abuse	Fisher's Exact Test, p = .09
Emotional abuse	Fisher's Exact Test, p = .05
Physical abuse	Fisher's Exact Test, p = .05
Neglect	Fisher's Exact Test, p = .21
Self-harm	Fisher's Exact Test, p < .0001
Running away	Fisher's Exact Test, p = .89
Child made a State Ward	Fisher's Exact Test, p = .63
History of accommodation placements by DOCS	Fisher's Exact Test, p = .28
Victims Compensation Award Application or not	Fisher's Exact Test, p = .23

* unequal variance

Table 5.29: Relationship of demographic variables to bingeing

Potential predictor	Significance
Age at 5 year follow-up *	t = .23, df = 26; p = .82
Follow-up lag	t = -.10, df = 37; p = .92
Sex	Fisher's exact, p = .12
Socio-economic status at intake	$\chi^2=.45$, df = 2; p = .80
Number of siblings at follow-up	t = .52, df = 84; p = .60
Mother's age at intake *	t = 2.00, df = 27; p = .06
Father's age at intake	t = 1.71, df = 62; p = .09
Living situation (biological parent or not) at follow-up	Fisher's exact, p = .41

* unequal variance

Table 5.30: Relationship of sexual abuse variables to bingeing

Potential predictor	Significance
Age at onset of abuse	t = 1.85, df = 34; p = .07
Frequency of abuse	$\chi^2=.11$, df = 2; p = .94
Duration of abuse	$\chi^2= 1.65$, df = 2; p = .44
Severity of abuse	$\chi^2= 1.07$, df = 3; p = .78
Violence used	Fisher's exact test, p = .19
Intrafamilial abuser	Fisher's exact test, p = .18
Abuser was parent figure	Fisher's Exact Test, p = .14
Abuser living in the home	Fisher's exact test, p = .46
Physical signs consistent with sexual abuse	Fisher's exact test, p = .11
More than one abuser	Fisher's Exact Test, p = .39
Coercion	
Persuasion or use of adult authority	Fisher's Exact Test, p = .48

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Bribes	Fisher's Exact Test, p = .66
Verbal threats	Fisher's Exact Test, p = .43
Physical force	Fisher's Exact Test, p = .37
Parent's reaction to child's disclosure (neutral/negative or positive)	Fisher's Exact Test, p = .60
Harassment by abuser	Fisher's exact test, p = .57
Any contact with the abuser	Fisher's exact test, p = .15
Abuser charged	Fisher's exact test, p = .22
Legal definition of type of sexual abuse experienced	
Sexual assault	Fisher's exact test, p = .62
Attempted sexual assault	Fisher's exact test, p = .04
Indecent assault	Fisher's exact test, p = .46
Attempted indecent assault	Fisher's exact test, p = .37
Court involved	Fisher's exact test, p = .38
Receipt of therapy	$\chi^2 = .99, df = 1; p = .32$
Reabuse *	Fisher's exact test, p = .65
Mother's child sexual abuse	Fisher's exact test, p = .38

* unequal variance

Appendix 5 - Predictors: Univariate Analyses

Table 5.31: Relationship of intake variables to bingeing

Potential predictor	Significance
Past loss	Fisher's Exact Test, p = .02
Care-giver changes prior to intake	Fisher's Exact Test, p = .03
Supportive relationships	$\chi^2 = 4.54, df = 3; p = .21$
Previous abuse/neglect (parent informant)	Fisher's Exact Test, p = .39
Social-worker's rating of family functioning	$\chi^2 = 9.05, df = 4; p = .06$
Social-worker's rating of mother-child relationship	$\chi^2 = 7.21, df = 4; p = .13$
Parental discord	Fisher's exact test, p = .003
Parent psychiatric history	Fisher's exact test, p = .61
Parental alcohol abuse	$\chi^2 = 1.14, df = 2; p = .57$
Parental ill health *	Fisher's exact test, p = .20
Parent/s employed or not	$\chi^2 = 2.74, df = 1; p = .10$
Mother's EPQ scores	
Psychoticism *	t = -1.73, df = 26; p = .10
Extraversion	t = .95, df = 84; p = .35
Neuroticism	t = -1.65, df = 84; p = .10
Lie Scale	t = -.08, df = 84; p = .94
Mother's mental health (GHQ score)	t = -1.82, df = 25; p = .08
Family functioning	t = 1.04, df = 83; p = .30
Depression	t = - 2.23, df = 86; p = .03
Self-esteem	t = 1.94, df = 86; p = .06
Behaviour	t = -1.44, df = 85; p = .16

* unequal variance

Table 5.32: Relationship of five year follow-up variables to bingeing

Potential predictor	Significance
Pregnant in last 12 months	Fisher's exact, p = .32
Having support person or not	Fisher's Exact, p = .44
Having parent(s) with drug/alcohol problem	$\chi^2 = 4.33, df = 1; p = .04$
Changes in parent-figures	t = -.67, df = 86; p = .50
Mother's mental health	t = .59, df = 78; p = .56
Family functioning	t = 1.04, df = 77; p = .30
Number of negative life events in last 12 months *	t = - 4.05, df = 28; p < .001
Depression *	t = -2.69, df = 24; p = .01
Self-esteem *	t = 2.94, df = 86; p = .004
Anxiety	t = -3.80, df = 86; p < .001
Behaviour (CBCL)	t = -1.22, df = 64; p = .23
Number of criminal offences committed by young person after index abuse for which conviction received *	t = 1.35, df = 21; p = .19
Attributional style	
Negative events	t = -1.59, df = 32; p = .12
Positive events	t = -.01, df = 32; p = .99
Total	t = .71, df = 32; p = .49

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Hopefulness	t = .51, df = 49; p = .61
Despair	t = -1.66, df = 49; p = .10
Criminal offences committed by young person after index abuse for which conviction received	Fisher's Exact Test, p = .65
Notifications prior to index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .50
Sexual abuse	Fisher's Exact Test, p = .60
Emotional abuse	Fisher's Exact Test, p = .46
Physical abuse	Fisher's Exact Test, p = .60
Neglect	Fisher's Exact Test, p = .59
Notifications after index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .02
Sexual abuse	Fisher's Exact Test, p = .19
Emotional abuse	Fisher's Exact Test, p = .04
Physical abuse	Fisher's Exact Test, p = .13
Neglect	Fisher's Exact Test, p = .54
Self-harm	Fisher's Exact Test, p = .54
Running away	Fisher's Exact Test, p = .60
Child made State Ward	Fisher's Exact Test, p = .65
History of accommodation placements by DOCS	Fisher's Exact Test, p = .26
Victims Compensation Application	Fisher's Exact Test, p = .46

* unequal variance

Table 5.33: Relationship of demographic variables to self-induced vomiting

Potential predictor	Significance
Age at five year follow-up	t = -.56, df = 86; p = .57
Follow-up lag	t = -1.15, df = 86; p = .25
Sex	Fisher's exact test, p = .13
Socio-economic status at intake	$\chi^2 = .82$, df = 2; p = .66
Number of siblings at follow-up	t = 1.30, df = 84; p = .20
Mother's age at intake	t = .75, df = 82; p = .46
Father's age at intake	t = 1.82, df = 62; p = .07
Living situation (biological parent or not) at follow-up	Fisher's Exact Test, p = .16

* unequal variance

Appendix 5 - Predictors: Univariate Analyses

Table 5.34 Relationship of sexual abuse variables to self-induced vomiting

Potential predictor	Significance
Age at onset of abuse	t = -.13, df = 34; p = .90
Frequency of abuse	$\chi^2=1.46$, df = 2; p = .48
Duration of abuse	$\chi^2=1.19$, df = 2; p = .55
Severity of abuse	$\chi^2 = 1.80$ df = 3; p = .62
Violence used	Fisher's Exact Test, p = .61
Intrafamilial abuser	Fisher's Exact Test, p = .52
Abuser was parent figure	Fisher's Exact Test, p = .35
Abuser living in the home	Fisher's Exact Test, p = .54
Physical signs consistent with sexual abuse	Fisher's Exact Test, p = .18
More than one abuser	Fisher's Exact Test, p = .69
Coercion	
Persuasion or use of adult authority	Fisher's Exact Test, p = .43
Bribes	Fisher's Exact Test, p = .14
Verbal threats	Fisher's Exact Test, p = .45
Physical force	Fisher's Exact Test, p = .53
Parent's reaction to child's disclosure (neutral/negative or positive)	Fisher's Exact Test, p = .19
Harassment by abuser	Fisher's Exact Test, p = .39
Any contact with the abuser	Fisher's Exact Test, p = .34
Abuser charged	Fisher's Exact Test, p = .20
Legal definition of type of sexual abuse experienced	
Sexual assault	Fisher's Exact Test, p = .32
Attempted sexual assault	Fisher's Exact Test, p = .64
Indecent assault	Fisher's Exact Test, p = .31
Attempted indecent assault	Fisher's Exact Test, p = .55
Court involved	Fisher's Exact Test, p = .15
Receipt of therapy	Fisher's Exact Test, p = .04
Reabuse	Fisher's Exact Test, p = .50
Mother's child sexual abuse	Fisher's Exact Test, p = .32

Table 5.35: Relationship of intake variables to self-induced vomiting

Potential predictor	Significance
Past loss	Fisher's Exact Test, p = .34
Care-giver changes prior to intake	Fisher's Exact Test, p = .53
Supportive relationships	$\chi^2 = 2.29$, df = 3; p = .52
Previous abuse/neglect (parent informant)	Fisher's Exact Test, p = .65
Social-worker's rating of family functioning	$\chi^2 = 5.50$, df = 4; p = .24
Social-worker's rating of mother-child relationship	$\chi^2 = 4.61$ df = 4; p = .33
Parental discord	Fisher's Exact Test, p = .34
Parent psychiatric history	Fisher's Exact Test, p = .65
Parental alcohol abuse	$\chi^2 = .49$, df = 2; p = .78

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Parental ill health *	Fisher's Exact Test, p = .57
Parent/s employed or not	Fisher's Exact Test, p = .17
Mother's EPQ scores	
Psychoticism	t = 1.23, df = 84; p = .22
Extraversion	t = .62, df = 84; p = .54
Neuroticism	t = -1.28, df = 84; p = .20
Lie Scale	t = -1.81, df = 84; p = .07
Mother's mental health (GHQ score)	t = -2.19, df = 84; p = .03
Family functioning	t = -1.19, df = 83; p = .24
Depression	t = -2.75, df = 86; p = .007
Self-esteem	t = 2.30, df = 86; p = .02
Behaviour	t = -.93, df = 85; p = .36

* unequal variance

Table 5.36: Relationship of five year follow-up variables to self-induced vomiting

Potential predictor	Significance
Pregnant in last 12 months	Fisher's Exact, p = .50
Having support person or not	Fisher's Exact, p = .66
Having parent(s) with drug/alcohol problem	Fisher's Exact, p = .002
Changes in parent-figures *	t = -1.73, df = 11; p = .11
Mother's mental health *	t = 2.85, df = 26; p = .008
Family functioning	t = -.53, df = 77; p = .60
Number of negative life events in last 12 months	t = -1.87, df = 86; p = .07
Depression *	t = -2.72, df = 11; p = .02
Self-esteem *	t = 1.92, df = 11; p = .08
Anxiety	t = -3.44, df = 86; p = .001
Attributional style	
Negative events	t = -1.25, df = 32; p = .22
Positive events	t = .18, df = 32; p = .85
Total	t = .72, df = 32; p = .48
Hopefulness *	t = 1.23, df = 6; p = .26
Despair *	t = -.88, df = 6; p = .41
Criminal offences committed by young person after index abuse for which conviction received	Fisher's Exact Test, p = .58
Notifications prior to index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .62
Sexual abuse	Fisher's Exact Test, p = .76
Emotional abuse	Fisher's Exact Test, p = .33
Physical abuse	Fisher's Exact Test, p = .24
Neglect	Fisher's Exact Test, p = .56
Notifications after index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .09
Sexual abuse	Fisher's Exact Test, p = .62
Emotional abuse	Fisher's Exact Test, p = .58

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Physical abuse	Fisher's Exact Test, p = .67
Neglect	Fisher's Exact Test, p = .67
Self-harm	Fisher's Exact Test, p = .33
Running away	Fisher's Exact Test, p = .01
Child made State Ward	Fisher's Exact Test, p = .42
History of accommodation placements by DOCS	Fisher's Exact Test, p = .26
Victims Compensation Application	Fisher's Exact Test, p = .54

* unequal variance

Table 5.37: Relationship of demographic variables to self-injury in last 12 months

Potential predictor	Significance
Age at five year follow-up	t = .53, df = 83; p = .60
Follow-up lag	t = .11, df = 83; p = .91
Sex	Fisher's Exact Test, p = .42
Socio-economic status at intake	$\chi^2 = .43$, df = 2; p = .81
Number of siblings at follow-up	t = .77, df = 81; p = .44
Mother's age at intake	t = 1.37, df = 80; p = .17
Father's age at intake	t = 1.18, df = 61; p = .24
Living situation (biological parent or not) at follow-up	Fisher's Exact Test, p = .42

Table 5.38: Relationship of sexual abuse variables to self-injury in the last 12 months

Potential predictor	Significance
Age at onset of abuse	t = .26, df = 31; p = .80
Frequency of abuse	$\chi^2 = 2.70$, df = 2; p = .26
Duration of abuse	$\chi^2 = 1.24$, df = 2; p = .54
Severity of abuse	$\chi^2 = 5.19$, df = 3; p = .16
Violence used	Fisher's Exact Test, p = .54
Intrafamilial abuser	Fisher's Exact Test, p = .15
Abuser was parent figure	Fisher's Exact Test, p = .21
Abuser living in the home	Fisher's Exact Test, p = .27
Physical signs consistent with sexual abuse	Fisher's Exact Test, p = .13
More than one abuser	Fisher's Exact Test, p = .27
Coercion	
Persuasion or use of adult authority	Fisher's Exact Test, p = .20
Bribes	Fisher's Exact Test, p = .18
Verbal threats	Fisher's Exact Test, p = .35
Physical force	Fisher's Exact Test, p = .63
Parent's reaction to child's disclosure (neutral/negative or positive)	Fisher's Exact Test, p = .05
Harassment by abuser	Fisher's Exact Test, p = .47
Any contact with the abuser	Fisher's Exact Test, p = .16

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Charges filed against abuser	Fisher's Exact Test, p = .64
Legal definition of type of sexual abuse experienced	
Sexual assault	Fisher's Exact Test, p = .71
Attempted sexual assault	Fisher's Exact Test, p = .50
Indecent assault	Fisher's Exact Test, p = .002
Attempted indecent assault	Fisher's Exact Test, p = .55
Court involved	Fisher's Exact Test, p = .51
Receipt of therapy	Fisher's Exact Test, p = .11
Reabuse	Fisher's Exact Test, p = .51
Mother's child sexual abuse	Fisher's Exact Test, p = .31

Table 5.39: Relationship of intake variables to self-injury in last 12 months

Potential predictor	Significance
Past loss	Fisher's Exact Test, p = .43
Care-giver changes prior to intake	Fisher's Exact Test, p = .63
Supportive relationships present	$\chi^2 = 1.16$, df = 3; p = .76
Previous abuse/neglect (parent informant)	Fisher's Exact Test, p = .57
Social worker's rating of family functioning	$\chi^2 = 1.80$, df = 4; p = .77
Social worker's rating of mother-child relationship	$\chi^2 = 2.85$, df = 4; p = .58
Parental discord	Fisher's Exact Test, p = .21
Parent psychiatric history	Fisher's Exact Test, p = .43
Parental alcohol abuse	Fisher's Exact Test, p = .28
Parental ill health	Fisher's Exact Test, p = .30
Parent/s employed or not	Fisher's Exact Test, p = .49
Mother's EPQ scores	t = .40, df = 81; p = .69
Psychoticism	t = .40, df = 81; p = .69
Extraversion	t = 1.73, df = 81; p = .09
Neuroticism	t = -1.63, df = 81; p = .11
Lie Scale	t = -.31, df = 81; p = .76
Mother's mental health (GHQ score)	t = -3.45, df = 81; p < .001
Family functioning	t = -1.80, df = 80; p = .08
Depression	t = -2.38, df = 83; p = .02
Self-esteem	t = 1.73, df = 83; p = .09
Behaviour	t = -1.91, df = 82; p = .06

Table 5.40: Relationship of five year follow-up variables to self-injury in the last 12 months

Potential predictor	Significance
Pregnant in last 12 months	Fisher's Exact Test, p = .51
Having support person or not	Fisher's Exact Test, p = .36
Having parent(s) with drug/alcohol problem	Fisher's Exact Test, p = .02
Changes in parent-figures *	t = - 2.78, df = 11; p = .02

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Mother's mental health	t = .24, df = 77; p = .81
Family functioning	t = -1.27, df = 76; p = .21
Number of negative life events in last 12 months	t = -2.20, df = 83; p = .03
Attributional style	
for negative events	t = -.89, df = 31; p = .38
for positive events	t = 1.04, df = 31; p = .31
total score	t = 1.20, df = 31; p = .24
Hopefulness *	t = 1.67, df = 7; p = .14
Despair *	t = -2.27, df = 6; p = .06
Depression *	t = -2.09, df = 11; p = .06
Self-esteem	t = 3.52, df = 83; p = .001
Anxiety	t = -3.66, df = 83; p < .001
Behaviour	t = -2.48, df = 63; p = .02
Criminal offences committed by young person after index abuse for which conviction received	Fisher's Exact Test, p = .66
Notifications prior to index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .42
Sexual abuse	Fisher's Exact Test, p = .76
Emotional abuse	Fisher's Exact Test, p = .66
Physical abuse	Fisher's Exact Test, p = .76
Neglect	Fisher's Exact Test, p = .49
Notifications after index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .06
Sexual abuse	Fisher's Exact Test, p = .17
Emotional abuse	Fisher's Exact Test, p = .43
Physical abuse	Fisher's Exact Test, p = .24
Neglect	Fisher's Exact Test, p = .76
Self-harm	Fisher's Exact Test, p = .76
Running away	Fisher's Exact Test, p = .13
Child made a State Ward	Fisher's Exact Test, p = .57
History of accommodation placements by DOCS	Fisher's Exact Test, p = .36
Victims Compensation Application	Fisher's Exact Test, p = .58

* unequal variance

Appendix 5 - Predictors: Univariate Analyses

Table 5.41: Relationship of demographic variables to self-injury since intake

Potential predictor	Significance
Age at five year follow-up	t = - 1.30, df = 83; p = .20
Follow-up lag	t = -.32, df = 83; p = .75
Sex	Fisher's Exact Test, p = .15
Socio-economic status at intake	$\chi^2 = .07$, df = 2; p = .96
Number of siblings at follow-up	t = 1.70, df = 81; p = .09
Mother's age at intake	t = .47, df = 80; p = .64
Father's age at intake	t = 1.71, df = 61; p = .09
Living situation (biological parent or not) at follow-up	Fisher's Exact Test, p = .37

Table 5.42: Relationship of sexual abuse variables to self-injury since intake

Potential predictor	Significance
Age at onset of abuse	t = -.82, df = 31; p = .42
Frequency of abuse	$\chi^2 = 1.76$, df = 2; p = .41
Duration of abuse	$\chi^2 = 1.60$, df = 2; p = .45
Severity of abuse	$\chi^2 = 3.24$, df = 3; p = .36
Violence used	Fisher's Exact Test, p = .58
Intrafamilial abuser	Fisher's Exact Test, p = .62
Abuser was parent figure	Fisher's Exact Test, p = .03
Abuser living in the home	Fisher's Exact Test, p = .12
Physical signs consistent with sexual abuse	Fisher's Exact Test, p = .28
More than one abuser	Fisher's Exact Test, p = .42
Coercion	
Persuasion or use of adult authority	Fisher's Exact Test, p = .50
Bribes	Fisher's Exact Test, p = .28
Verbal threats	Fisher's Exact Test, p = .45
Physical force	Fisher's Exact Test, p = .54
Parent's reaction to child's disclosure (neutral/negative or positive)	Fisher's Exact Test, p = .21
Harassment by abuser	Fisher's Exact Test, p = .51
Any contact with the abuser	Fisher's Exact Test, p = .04
Charges filed against abuser	Fisher's Exact Test, p = .53
Legal definition of type of sexual abuse experienced	
Sexual assault	Fisher's Exact Test, p = .55
Attempted sexual assault	Fisher's Exact Test, p = .36
Indecent assault	Fisher's Exact Test, p < .001
Attempted indecent assault	Fisher's Exact Test, p = .72
Court involved	Fisher's Exact Test, p = .36
Receipt of therapy	Fisher's Exact Test, p = .01
Reabuse	Fisher's Exact Test, p = .34
Mother's child sexual abuse	Fisher's Exact Test, p = .65

Table 5.43: Relationship of intake variables to self-injury since intake

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Past loss	Fisher's Exact Test, p = .17
Care-giver changes prior to intake	Fisher's Exact Test, p = .46
Supportive relationships present	$\chi^2 = 4.18$, df = 3; p = .24
Previous abuse/neglect (parent informant)	Fisher's Exact Test, p = .58
Social worker's rating of family functioning	$\chi^2 = 2.01$, df = 4; p = .73
Social worker's rating of mother-child relationship	$\chi^2 = 1.11$, df = 4; p = .89
Parental discord	Fisher's Exact Test, p = .60
Parent psychiatric history	Fisher's Exact Test, p = .42
Parental alcohol abuse	Fisher's Exact Test, p = .65
Parental ill health	Fisher's Exact Test, p = .60
Parent/s employed or not	Fisher's Exact Test, p = .50
Mother's EPQ scores	
Psychoticism	t = -.28, df = 81; p = .78
Extraversion	t = .81, df = 81; p = .42
Neuroticism	t = -.37, df = 81; p = .71
Lie Scale	t = -.46, df = 81; p = .65
Mother's mental health (GHQ score) *	t = -1.76, df = 20; p = .09
Family functioning	t = -.78, df = 80; p = .44
Depression *	t = - 2.43, df = 21; p = .02
Self-esteem	t = 1.95, df = 83; p = .06
Behaviour	t = -1.46, df = 82; p = .15

* unequal variance

Table 5.44: Relationship of five year follow-up variables to self-injury since intake

Potential predictor	Significance
Pregnant in last 12 months	Fisher's Exact Test, p = .28
Having support person or not	Fisher's Exact Test, p = .35
Having parent(s) with drug/alcohol problem	Fisher's Exact Test, p = .03
Changes in parent-figures *	t = - 2.22, df = 23; p = .04
Mother's mental health	t = .39, df = 77; p = .70
Family functioning	t = - 1.17, df = 76; p = .25
Number of negative life events in last 12 months	t = - 2.64, df = 83; p = .01
Attributional style	
For negative events	t = -1.05, df = 31; p = .30
for positive events	t = .91, df = 31; p = .37
total score	t = 1.18, df = 31; p = .25
Hopefulness	t = 1.24, df = 14; p = .23
Despair *	t = -2.58, df = 13; p = .02
Depression *	t = - 2.57, df = 20; p = .02
Self-esteem *	t = 3.38, df = 21; p = .003
Anxiety *	t = -3.74, df = 22; p = .001
Behaviour	t = - 3.82, df = 63; p < .001
Criminal offences committed by young person after	Fisher's Exact Test, p = .49

Appendix 5 - Predictors: Univariate Analyses

index abuse for which conviction received	
Notifications prior to index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .23
Sexual abuse	Fisher's Exact Test, p = .62
Emotional abuse	Fisher's Exact Test, p = .49
Physical abuse	Fisher's Exact Test, p = .62
Neglect	Fisher's Exact Test, p = .29
Notifications after index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .03
Sexual abuse	Fisher's Exact Test, p = .11
Emotional abuse	Fisher's Exact Test, p = .20
Physical abuse	Fisher's Exact Test, p = .38
Neglect	Fisher's Exact Test, p = .62
Self-harm	Fisher's Exact Test, p = .62
Running away	Fisher's Exact Test, p = .21
Child made a State Ward	Fisher's Exact Test, p = .39
History of accommodation placements by DOCS	Fisher's Exact Test, p = .16
Victims Compensation Application	Fisher's Exact Test, p = .38

* unequal variance

Table 5.45: Relationship of demographic variables to recent suicidal ideation

Potential predictor	Significance
Age at five year follow-up	t = .39, df = 93; p = .70
Follow-up lag *	t = -.74, df = 44; p = .47
Sex	Fisher's Exact Test, p = .49
Socio-economic status at intake	$\chi^2 = .63$, df = 2; p = .73
Number of siblings at follow-up	t = .35, df = 90; p = .73
Mother's age at intake	t = .90, df = 89; p = .37
Father's age at intake	t = 1.78, df = 68; p = .08
Living situation (biological parent or not) at follow-up	Fisher's Exact Test, p = .16

* unequal variance

Table 5.46: Relationship of sexual abuse variables to recent suicidal ideation

Potential predictor	Significance
Age at onset of abuse	t = .72, df = 39; p = .48
Frequency of abuse	$\chi^2 = 1.52$, df = 2; p = .47
Duration of abuse	$\chi^2 = 2.83$, df = 2; p = .24
Severity of abuse	$\chi^2 = 3.54$, df = 3; p = .32
Violence used	Fisher's Exact Test, p = .48
Intrafamilial abuser	Fisher's Exact Test, p = .52
Abuser was parent figure	Fisher's Exact Test, p = .46
Abuser living in the home	Fisher's Exact Test, p = .19
Physical signs consistent with sexual abuse	Fisher's Exact Test, p = .51
More than one abuser	Fisher's Exact Test, p = .63

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Coercion	
Persuasion or use of adult authority	Fisher's Exact Test, p = .59
Bribes	Fisher's Exact Test, p = .61
Verbal threats	Fisher's Exact Test, p = .54
Physical force	Fisher's Exact Test, p = .54
Parent's reaction to child's disclosure (neutral/negative or positive)	Fisher's Exact Test, p = .07
Harassment by abuser	Fisher's Exact Test, p = .62
Any contact with the abuser	Fisher's Exact Test, p = .39
Charges filed against abuser	Fisher's Exact Test, p = .13
Legal definition of type of sexual abuse experienced	
Sexual assault	Fisher's Exact Test, p = .66
Attempted sexual assault	Fisher's Exact Test, p = .34
Indecent assault	Fisher's Exact Test, p = .50
Attempted indecent assault	Fisher's Exact Test, p = .39
Court involved	Fisher's Exact Test, p = .55
Receipt of therapy	Fisher's Exact Test, p = .30
Reabuse	Fisher's Exact Test, p = .39
Mother's child sexual abuse	Fisher's Exact Test, p = .48

Table 5.47: Relationship of intake variables to recent suicidal ideation

Potential predictor	Significance
Past loss	Fisher's Exact Test, p = .46
Care-giver changes prior to intake	Fisher's Exact Test, p = .54
Supportive relationships present	$\chi^2 = 6.13$, df = 3; p = .11
Previous abuse/neglect (parent informant)	Fisher's Exact Test, p = .36
Social worker's rating of family functioning	$\chi^2 = 5.06$, df = 4; p = .28
Social worker's rating of mother-child relationship	$\chi^2 = 2.86$, df = 4; p = .58
Parental discord	Fisher's Exact Test, p = .36
Parent psychiatric history	Fisher's Exact Test, p = .30
Parental alcohol abuse	$\chi^2 = 1.80$, df = 2; p = .41
Parental ill health	Fisher's Exact Test, p = .26
Parent/s employed or not	Fisher's Exact Test, p = .03
Mother's EPQ scores	
Psychoticism	t = .61, df = 91; p = .54
Extraversion	t = 1.72, df = 91; p = .09
Neuroticism	t = -1.96, df = 91; p = .05
Lie Scale	T = 1.45, df = 91; p = .15
Mother's mental health (GHQ score) *	t = - 2.58, df = 25; p = .02
Family functioning	T = -.85, df = 90; p = .40
Depression	t = - 1.92, df = 93; p = .06
Self-esteem	t = 2.50, df = 93; p = .01
Behaviour	t = -2.45, df = 92; p = .02

* unequal variance

Appendix 5 - Predictors: Univariate Analyses

Table 5.48: Relationship of five year follow-up variables to recent suicidal ideation

Potential predictor	Significance
Pregnant in last 12 months	Fisher's Exact Test, p = .40
Having support person or not	Fisher's Exact Test, p = .11
Having parent(s) with drug/alcohol problem	Fisher's Exact Test, p = .39
Changes in parent-figures	t = -.08, df = 93; p = .93
Mother's mental health	t = .13, df = 84; p = .90
Family functioning	t = -.08, df = 83; p = .94
Number of negative life events in last 12 months	t = -2.16, df = 93; p = .03
Attributional Style	
For negative events	t = -2.81, df = 32; p = .008
For positive events	t = .85, df = 32; p = .40
Total score	t = 1.94, df = 32; p = .06
Hopefulness *	t = 1.20, df = 6; p = .27
Despair *	t = -2.52, df = 6; p = .04
Depression *	t = -4.55, df = 23; p < .001
Self-esteem *	t = 3.36, df = 25; p = .003
Anxiety *	t = -2.95, df = 21; p = .008
Behaviour	t = -1.97, df = 69; p = .05
Criminal offences committed by young person after index abuse for which conviction received	Fisher's Exact Test, p = .70
Notifications prior to index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .57
Sexual abuse	Fisher's Exact Test, p = .53
Emotional abuse	Fisher's Exact Test, p = .47
Physical abuse	Fisher's Exact Test, p = .60
Neglect	Fisher's Exact Test, p = .40
Notifications after index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .55
Sexual abuse	Fisher's Exact Test, p = .43
Emotional abuse	Fisher's Exact Test, p = .64
Physical abuse	Fisher's Exact Test, p = .53
Neglect	Fisher's Exact Test, p = .53
Self-harm	Fisher's Exact Test, p = .21
Running away	Fisher's Exact Test, p = .47
Child made a State Ward	Fisher's Exact Test, p = .36
History of accommodation placements by DOCS	Fisher's Exact Test, p = .09
Victims Compensation Application	Fisher's Exact Test, p = .19

Table 5.49: Relationship of demographic variables to suicide attempts in the last 12 months

Potential predictor	Significance
Age at five year follow-up	t = .33, df = 85; p = .74
Follow-up lag	t = -1.09, df = 85; p = .28
Sex	Fisher's Exact Test, p = .41
Socio-economic status at intake	$\chi^2 = .72$, df = 2; p = .70

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Number of siblings at follow-up	t = -.32, df = 83; p = .75
Mother's age at intake	t = 2.48, df = 81; p = .02
Father's age at intake	t = 2.05, df = 62; p = .05
Living situation (biological parent or not) at follow-up	Fisher's Exact Test, p = .69

Table 5.50: Relationship of sexual abuse variables to suicide attempts in the last 12 months

Potential predictor	Significance
Age at onset of abuse	t = 1.35, df = 33; p = .19
Frequency of abuse	$\chi^2 = 1.89$, df = 2; p = .39
Duration of abuse	$\chi^2 = .01$ df = 2; p = 1.00
Severity of abuse	$\chi^2 = .49$, df = 3; p = .92
Violence used	Fisher's Exact Test, p = .59
Intrafamilial abuser	Fisher's Exact Test, p = .05
Abuser was parent figure	Fisher's Exact Test, p = .09
Abuser living in the home	Fisher's Exact Test, p = .21
Physical signs consistent with sexual abuse	Fisher's Exact Test, p = .33
More than one abuser	Fisher's Exact Test, p = .86
Coercion	
Persuasion or use of adult authority	Fisher's Exact Test, p = .32
Bribes	Fisher's Exact Test, p = .44
Verbal threats	Fisher's Exact Test, p = .51
Physical force	Fisher's Exact Test, p = .25
Parent's reaction to child's disclosure (neutral/negative or positive)	Fisher's Exact Test, p = .66
Harassment by abuser	Fisher's Exact Test, p = .37
Any contact with the abuser	Fisher's Exact Test, p = .05
Charges filed against abuser	Fisher's Exact Test, p = .21
Legal definition of type of sexual abuse experienced	
Sexual assault	Fisher's Exact Test, p = .85
Attempted sexual assault	Fisher's Exact Test, p = .03
Indecent assault	Fisher's Exact Test, p = .60
Attempted indecent assault	Fisher's Exact Test, p = .69
Court involved	Fisher's Exact Test, p = .05
Receipt of therapy	Fisher's Exact Test, p = .23
Reabuse	Fisher's Exact Test, p = .72
Mother's child sexual abuse	Fisher's Exact Test, p = .32

Table 5.51: Relationship of intake variables to suicide attempts in the last 12 months

Potential predictor	Significance
Past loss	Fisher's Exact Test, p = .55
Care-giver changes prior to intake	Fisher's Exact Test, p = .68

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Supportive relationships present	$\chi^2 = .68, df = 3; p = .88$
Previous abuse/neglect (parent informant)	Fisher's Exact Test, $p = .16$
Social worker's rating of family functioning	$\chi^2 = 1.80, df = 4; p = .77$
Social worker's rating of mother-child relationship	$\chi^2 = 2.39, df = 4; p = .67$
Parental discord	Fisher's Exact Test, $p = .55$
Parent psychiatric history	Fisher's Exact Test, $p = .55$
Parental alcohol abuse	$\chi^2 = .17, df = 2; p = .92$
Parental ill health	Fisher's Exact Test, $p = .49$
Parent/s employed or not	Fisher's Exact Test, $p = .02$
Mother's EPQ scores	
Psychoticism	$t = -.23, df = 83; p = .82$
Extraversion	$t = 1.09, df = 83; p = .28$
Neuroticism	$t = -2.37, df = 83; p = .02$
Lie Scale	$t = -.85, df = 83; p = .40$
Mother's mental health (GHQ score)	$t = -1.41, df = 83; p = .16$
Family functioning	$t = -.45, df = 82; p = .65$
Depression *	$t = -1.95, df = 4; p = .12$
Self-esteem	$t = 2.83, df = 85; p = .006$
Behaviour	$t = -1.57, df = 84; p = .12$

* unequal variance

Table 5.52: Relationship of five year follow-up variables to suicide attempts in the last 12 months

Potential predictor	Significance
Pregnant in last 12 months	Fisher's Exact Test, $p = .26$
Having support person or not	Fisher's Exact Test, $p = .48$
Having parent(s) with drug/alcohol problem	Fisher's Exact Test, $p = .06$
Changes in parent-figures	$t = -1.41, df = 85; p = .16$
Mother's mental health	$t = .88, df = 78; p = .38$
Family functioning	$t = .12, df = 77; p = .90$
Number of negative life events in last 12 months	$t = -1.82, df = 85; p = .07$
Attributional Style	
For negative events	$t = -.16, df = 32; p = .87$
For positive events	$t = 1.16, df = 32; p = .26$
Total score	$t = .91, df = 32; p = .37$
Hopefulness	$t = 5.72, df = 48; p < .001$
Despair *	$t = -1.76, df = 2; p = .22$
Depression *	$t = -3.83, df = 4; p = .02$
Self-esteem	$t = 5.16, df = 85; p < .001$
Anxiety	$t = -4.32, df = 85; p < .001$
Behaviour	$t = -2.29, df = 64; p = .03$
Criminal offences committed by young person after index abuse for which conviction received	Fisher's Exact Test, $p = .84$
Notifications prior to index abuse	

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Of all types, including neglect	Fisher's Exact Test, p = .69
Sexual abuse	Fisher's Exact Test, p = .89
Emotional abuse	Fisher's Exact Test, p = .84
Physical abuse	Fisher's Exact Test, p = .89
Neglect	Fisher's Exact Test, p = .74
Notifications after index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .18
Sexual abuse	Fisher's Exact Test, p = .69
Emotional abuse	Fisher's Exact Test, p = .21
Physical abuse	Fisher's Exact Test, p = .89
Neglect	Fisher's Exact Test, p = .11
Self-harm	Fisher's Exact Test, p = .11
Running away	Fisher's Exact Test, p = .89
Child made State Ward	Fisher's Exact Test, p = .79
History of accommodation placements by DOCS	Fisher's Exact Test, p = .65
Victims Compensation Application	Fisher's Exact Test, p = .43

* unequal variance

Table 5.53: Relationship of demographic variables to suicide attempts since intake to the study

Potential predictor	Significance
Age at five year follow-up	t = - 3.10, df = 85; p = .003
Follow-up lag	t = - .67, df = 85; p = .50
Sex	Fisher's Exact Test, p = .16
Socio-economic status at intake	$\chi^2 = 2.16$, df = 2; p = .34
Number of siblings at follow-up	t = 2.30, df = 83; p = .02
Mother's age at intake	t = - .51, df = 81; p = .61
Father's age at intake	t = .92, df = 62; p = .36
Living situation (biological parent or not) at follow-up	Fisher's exact Test, p = .02

Table 5.54: Relationship of sexual abuse variables to suicide attempts since intake to the study

Potential predictor	Significance
Age at onset of abuse	t = - 2.24, df = 33; p = .03
Frequency of abuse	$\chi^2 = 2.83$, df = 2; p = .24
Duration of abuse	$\chi^2 = 1.79$, df = 2; p = .41
Severity of abuse	$\chi^2 = 2.25$, df = 3; p = .52
Violence used	Fisher's Exact Test, p = .18
Intrafamilial abuser	Fisher's Exact Test, p = .48
Abuser was parent figure	Fisher's Exact Test, p = .35
Abuser living in the home	Fisher's Exact Test, p = .32
Physical signs consistent with sexual abuse	Fisher's Exact Test, p = .58
More than one abuser	Fisher's Exact Test, p = .19

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Coercion	
Persuasion or use of adult authority	Fisher's Exact Test, p = .42
Bribes	Fisher's Exact Test, p = .25
Verbal threats	Fisher's Exact Test, p = .16
Physical force	Fisher's Exact Test, p = .35
Parent's reaction to child's disclosure (neutral/negative or positive)	Fisher's Exact Test, p = .53
Harassment by abuser	Fisher's Exact Test, p = .48
Any contact with the abuser	Fisher's Exact Test, p = .02
Charges filed against abuser	Fisher's Exact Test, p = .59
Legal definition of type of sexual abuse experienced	
Sexual assault	Fisher's Exact Test, p = .55
Attempted sexual assault	Fisher's Exact Test, p = .04
Indecent assault	Fisher's Exact Test, p = .42
Attempted indecent assault	Fisher's Exact Test, p = .28
Court involved	Fisher's Exact Test, p = .34
Receipt of therapy	Fisher's Exact Test, p = .002
Reabuse	Fisher's Exact Test, p = .66
Mother's child sexual abuse	Fisher's Exact Test, p = .04

Table 5.55: Relationship of intake variables to suicide attempts since intake to the study

Potential predictor	Significance
Past loss	Fisher's Exact Test, p = .48
Care-giver changes prior to intake	Fisher's Exact Test, p = .49
Supportive relationships	$\chi^2 = 1.83, df = 3; p = .61$
Previous abuse/neglect (parent informant)	Fisher's Exact Test, p = .48
Social-worker's rating of family functioning	$\chi^2 = 1.38, df = 4; p = .85$
Social-worker's rating of mother-child relationship	$\chi^2 = 2.36, df = 4; p = .67$
Parental discord	Fisher's Exact Test, p = .43
Parent psychiatric history	Fisher's Exact Test, p = .43
Parental alcohol abuse	$\chi^2 = 2.29, df = 2; p = .39$
Parental ill health	Fisher's Exact Test, p = .31
Parent/s employed or not	Fisher's Exact Test, p = .19
Mother's EPQ scores	
Psychoticism	t = -.04, df = 83; p = .97
Extraversion	t = .18, df = 83; p = .86
Neuroticism	t = -.60, df = 83; p = .55
Lie Scale	t = -1.50, df = 83; p = .14
Mother's mental health (GHQ score) *	t = -1.92, df = 21; p = .07
Family functioning	t = -1.69, df = 82; p = .10
Depression *	t = -3.49, df = 20; p = .002
Self-esteem	t = 3.15, df = 85; p = .002
Behaviour	t = -3.04, df = 84; p = .003

Appendix 5 - Predictors: Univariate Analyses

* unequal variance

Table 5.56: Relationship of five year follow-up variables to suicide attempts since intake to the study

Potential predictor	Significance
Pregnant in last 12 months	Fisher's Exact Test, p = .06
Having support person or not	Fisher's Exact Test, p = .33
Having parent(s) with drug/alcohol problem	Fisher's Exact Test, p < .001
Changes in parent-figures *	t = - 2.23, df = 19; p = .04
Mother's mental health	t = 1.15, df = 78; p = .25
Family functioning	t = -.15, df = 77; p = .88
Number of negative life events in last 12 months	t = - 4.11, df = 85; p < .001
Attributional Style	
For negative events	t = -.81, df = 32; p = .42
For positive events	t = 1.11, df = 32; p = .28
Total score	t = 1.20, df = 32; p = .24
Hopefulness *	t = 1.91, df = 14; p = .08
Despair *	t = - 2.63, df = 14; p = .02
Depression *	t = - 3.55, df = 19; p = .002
Self-esteem *	t = 4.34, df = 21; p < .001
Anxiety	t = - 6.13, df = 85; p < .001
Behaviour	t = - 3.79, df = 64; p < .001
Criminal offences committed by young person after index abuse for which conviction received	Fisher's Exact Test, p = .52
Notifications prior to index abuse	
Of all types, including neglect	Fisher's Exact Test, p = .38
Sexual abuse	Fisher's Exact Test, p = .39
Emotional abuse	Fisher's Exact Test, p = .11
Physical abuse	Fisher's Exact Test, p = .39
Neglect	Fisher's Exact Test, p = .71
Notifications after index abuse	Fisher's Exact Test, p = .61
Of all types, including neglect	Fisher's Exact Test, p = .05
Sexual abuse	Fisher's Exact Test, p = .62
Emotional abuse	Fisher's Exact Test, p = .63
Physical abuse	Fisher's Exact Test, p = .61
Neglect	Fisher's Exact Test, p = .61
Self-harm	Fisher's Exact Test, p = .04
Running away	Fisher's Exact Test, p = .04
Child made State Ward	Fisher's Exact Test, p = .20
History of accommodation placements by DOCS	Fisher's Exact Test, p = .005
Victims Compensation Application	Fisher's Exact Test, p = .55

* unequal variance

Appendix 5 - Predictors: Univariate Analyses

Table 5.57: Relationship of demographic variables to abuse/neglect notifications

Potential predictor	Significance
Age at five year follow-up	t = -.69, df = 141; p = .49
Follow-up lag *	t = -2.61, df = 40; p = .01
Sex	Fisher's Exact Test, p = .26
Socio-economic status at intake	$\chi^2 = 10.23$, df = 2; p = .006
Number of siblings at follow-up	t = .92, df = 134; p = .36
Mother's age at intake *	t = .65, df = 31; p = .52
Father's age at intake *	t = -.18, df = 8; p = .86
Living situation (biological parent or not) at follow-up	Fisher's Exact Test, p = .01

* unequal variance

Table 5.58: Relationship of sexual abuse variables to abuse/neglect notifications

Potential predictor	Significance
Age at onset of abuse	t = .34, df = 80; p = .74
Frequency of abuse	Fisher's Exact Test, p = .29
Duration of abuse	Fisher's Exact Test, p = .34
Severity of abuse	$\chi^2 = 5.61$, df = 3; p = .13
Violence used	Fisher's Exact Test, p = .42
Intrafamilial abuser	Fisher's Exact Test, p = .10
Abuser was parent figure	Fisher's Exact Test, p = .19
Abuser living in the home	Fisher's Exact Test, p = .23
Physical signs consistent with sexual abuse	Fisher's Exact Test, p = .20
More than one abuser	Fisher's Exact Test, p = .45
Coercion	
Persuasion or use of adult authority	Fisher's Exact Test, p = .15
Bribes	Fisher's Exact Test, p = .52
Verbal threats	Fisher's Exact Test, p = .25
Physical force	Fisher's Exact Test, p = .42
Parent's reaction to child's disclosure (neutral/negative or positive)	Fisher's Exact Test, p = .60
Harassment by abuser	Fisher's Exact Test, p = .31
Any contact with the abuser	Fisher's Exact Test, p = .03
Charges filed or not	Fisher's Exact Test, p = .07
Legal definition of type of sexual abuse experienced	
Sexual assault	Fisher's Exact Test, p = .14
Attempted sexual assault	Fisher's Exact Test, p = .41
Indecent assault	Fisher's Exact Test, p = .14
Attempted indecent assault	Fisher's Exact Test, p = .74
Court involved	Fisher's Exact Test, p = .07
Receipt of therapy	Fisher's Exact Test, p = .01
Reabuse	Fisher's Exact Test, p = .03
Mother's child sexual abuse	Fisher's Exact Test, p = .02

Appendix 5 - Predictors: Univariate Analyses

Table 5.59: Relationship of intake variables to abuse/neglect notifications

Potential predictor	Significance
Past loss	Fisher's Exact Test, p = .002
Care-giver changes prior to intake	Fisher's Exact Test, p = .002
Supportive relationships	$\chi^2 = .11$, df = 3; p = .99
Previous abuse/neglect (parent informant)	Fisher's Exact Test, p = .01
Social-worker's rating of family functioning	$\chi^2 = 8.90$, df = 4; p = .06
Social-worker's rating of mother-child relationship	$\chi^2 = 3.64$, df = 4; p = .46
Parental discord	Fisher's Exact Test, p = .42
Parent psychiatric history	Fisher's Exact Test, p = .007
Parental alcohol abuse	$\chi^2 = 1.45$, df = 2; p = .48
Parental ill health	Fisher's Exact Test, p = .003
Parent/s employed or not	Fisher's Exact Test, p < .001
Mother's EPQ scores	
Psychoticism	t = -3.30, df = 158; p = .001
Extraversion	t = -.37, df = 158; p = .71
Neuroticism	t = -1.98, df = 158; p = .05
Lie Scale	t = 1.35, df = 158; p = .18
Mother's mental health (GHQ score) *	t = -3.26, df = 34; p = .003
Family functioning	t = -2.25, df = 157; p = .03
Depression	t = -1.43, df = 143; p = .16
Self-esteem	t = 1.23, df = 155; p = .22
Behaviour	t = -3.65, df = 160; p < .001

Table 5.60: Relationship of five year follow-up variables to abuse/neglect notifications

Potential predictor	Significance
Pregnant in last 12 months	Fisher's Exact Test, p = .05
Having support person or not	Fisher's Exact Test, p = .61
Having parent(s) with drug/alcohol problem	Fisher's Exact Test, p = .04
Changes in parent-figures *	t = -2.23, df = 24; p = .04
Mother's mental health *	t = -1.59, df = 21; p = .13
Family functioning	t = -2.56, df = 127; p = .01
Number of negative life events in last 12 months	t = -3.01, df = 133; p = .003
Depression	t = -1.64, df = 134; p = .10
Self-esteem	t = 2.10, df = 133; p = .04
Anxiety	t = -1.64, df = 127; p = .10
Behaviour	t = -3.46, df = 116; p = .001
Attributional style	
Negative events	t = -2.97, df = 63; p = .004
Positive events	t = .97, df = 63; p = .34
Total	t = 2.28, df = 63; p = .03
Hopefulness	T = 1.96, df = 49; p = .06
Despair	t = 1.12, df = 49; p = .27

Appendix 5 - Predictors: Univariate Analyses

Potential predictor	Significance
Criminal offences committed by young person after index abuse for which conviction received	Fisher's Exact Test, $p < .001$
Notifications prior to index abuse	
Of all types, including neglect	Fisher's Exact Test, $p < .001$
Sexual abuse	Fisher's Exact Test, $p = .003$
Emotional abuse	Fisher's Exact Test, $p < .001$
Physical abuse	Fisher's Exact Test, $p = .64$
Neglect	Fisher's Exact Test, $p = .003$
Child made State Ward	Fisher's Exact Test, $p = .001$
History of accommodation placements by DOCS	Fisher's Exact Test, $p < .001$
Victims Compensation Application	Fisher's Exact Test, $p = .35$

References

- Abel, G., Becker, J., Cunningham-Rathner, G., Mittelman, M., and Rouleau, J. (1987). Self-reported sex crimes of non-incarcerated paraphiliacs. *Journal of Interpersonal Violence*, 2, 3-25.
- Abraham, S., and Llewellyn-Jones, D. (1987). *Eating Disorders - the facts*. (2nd ed.). Oxford, UK: Oxford University Press.
- Abramson, L.Y., Seligman, M.E., and Teasdale, J.D. (1978). Learned helplessness in humans: critique and reformulation. *Journal of Abnormal Psychology*, 87, 49-74.
- Achenbach, T. M. (1991). *Manual for the Youth Self-Report and 1991 Profile*. Burlington, Vermont: University of Vermont Department of Psychiatry.
- Achenbach, T., and Edelbrock, C. S. (1991a). *Manual for the Child Behavior Checklist/4-18 and 1991 Profile*. Burlington, VT: University of Vermont Department of Psychiatry.
- Achenbach, T. M., and Edelbrock, C. S. (1991b). *Manual for the Teacher's Report Form and 1991 Profile*. Burlington, Vermont: University of Vermont Department of Psychiatry.
- Amato, P. R. (1984). *The Piers-Harris children's self-concept scale - an evaluation of its use on an Australian population*. Melbourne, Australia: Institute of Family Studies. Working Paper No. 6.
- American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders*. Washington, DC: American Psychiatric Association.
- Angus, G. and Woodward, S. (1995). *Child abuse and neglect Australia 1993-94*. Child Welfare Series No. 13. Canberra: Australian Institute of Health and Welfare.
- Angus, G., and Hall, G. *Child abuse and neglect Australia 1994-95*. (1996). Child Welfare Series No. 16. Canberra: Australian Institute of Health and Welfare.

- Australian Bureau of Statistics (1996). *Causes of Death Australia. Catalogue # 3303.0 Social Reference.* Canberra: Australian Bureau of Statistics.
- Australian Institute of Health and Welfare (1998). *Child Protection Australia 1996-97. Catalogue No. CWS 5. Child Welfare Series No. 21.* Canberra: Australian Institute of Health and Welfare.
- Badgley, R.F., Allard, H.A., McCormick, N., et al. (1984). *Sexual Offences Against Children: Report of the Committee on Sexual Offences Against Children and Youths, Vol. 1.* Ottawa: Canadian Government Publishing Centre.
- Bagley, C., and Ramsay, R. (1986). Sexual abuse in childhood: Psychosocial outcomes and implications for social work practice. *Journal of Social Work and Human Sexuality, 4*, 33-47.
- Bailey, J. (1991). Criminal injuries compensation. *Law Institute Journal, 65*, 266-268. Cited case (1987) 89 F.L.R. 64.
- Baker, A., and Duncan, S. (1985). Child sexual abuse: a study of prevalence in Great Britain. *Child Abuse and Neglect, 9*, 457-467.
- Baker, J. (1998). *Juveniles in Crime - Part 1: Participation rates and risk factors.* Sydney, Australia: NSW Bureau of Crime Statistics and Research, Attorney-General's Department.
- Bartley, G. (1990). *Victim Compensation: An Update on the "Monster".* Sydney: Young Lawyers Section, Law Society of NSW.
- Beck, A. T., Rush, A. J., Shaw, B. F., and Emery, G. (1979). *Cognitive therapy of depression.* New York, NY: Guildford Press.
- Beck, A. T., Steer, R. A., and Garbin, M. (1988). Psychometric properties of the Beck Depression Inventory: twenty-five years of evaluation. *Clinical Psychology Review, 8*, 77-100.

- Beck, A. T., Steer, R. A., Kovacs, M., and Garrison, B. (1985). Hopelessness and eventual suicide: a 10-year prospective study of patients hospitalised with suicidal ideation. *American Journal of Psychiatry*, *142*, 559-563.
- Beitchman, J. H., Zucker, K. J., Hood, J. E., daCosta, G. A., and Akman, D. (1991). A review of the short-term effects of child sexual abuse. *Child Abuse and Neglect*, *15*, 537-556.
- Benson, P. L. (1997). *The Troubled Journey: a profile of American youth*. Minneapolis, MN: RespecTeen.
- Bentovim, A., Boston, P., and Van Elburg, A. (1987). Child sexual abuse - children and families referred to a treatment project and the effects of intervention. *British Medical Journal of Clinical Research and Education*, *295*, 1453-1457.
- Berden, G. F., Althaus, M., and Verhulst, F. C. (1990). Major life events and changes in the behavioural functioning of children. *Journal of Child Psychology and Psychiatry*, *31*, 949-959.
- Berliner, L., and Conte, J. R. (1995). The effects of disclosure and intervention on sexually abused children. *Child Abuse and Neglect*, *19*, 371-384.
- Bischof, G.P., Stith, S.M., and Whitney, M.L. (1995). Family environments of adolescent sex offenders and other juvenile delinquents. *Adolescence*, *30*, 157-170.
- Black, M., Dubowitz, H., and Harrington, D. (1994). Sexual abuse: developmental differences in children's behavior and self-perception. *Child Abuse and Neglect*, *18*, 85-95.
- Bland, M. (1987). *An Introduction to Medical Statistics*. Oxford, UK: Oxford University Press.

References

- Boney McCoy, S., and Finkelhor, D. (1995). Psychosocial sequelae of violent victimization in a national youth sample. *Journal of Consulting and Clinical Psychology, 63*, 726-736.
- Boney McCoy, S., and Finkelhor, D. (1996). Is youth victimization related to trauma symptoms and depression after controlling for prior symptoms and family relationships? A longitudinal, prospective study. *Journal of Consulting and Clinical Psychology, 64*, 1406-1416.
- Boney-McCoy, S., and Finkelhor, D. (1996). Is youth victimization related to trauma symptoms and depression after controlling for prior symptoms and family relationships? A longitudinal, prospective study. *Journal of Consulting and Clinical Psychology, 64*, 1406-1416.
- Booth, R.E., and Zhang, Y. (1996). Severe aggression and related conduct problems among runaway and homeless adolescents. *Psychiatric Services, 47*, 75-80.
- Boudewyn, A. C., and Liem, J. H. (1995). Childhood sexual abuse as a precursor to depression and self-destructive behavior in adulthood. *Journal of Traumatic Stress, 8*, 445-459.
- Brayden, R. M., Deitrich MacLean, G., Dietrich, M. S., Sherrod, K. B., and Altemeier, W. T. (1995). Evidence for specific effects of childhood sexual abuse on mental well-being and physical self-esteem. *Child Abuse and Neglect, 19*, 1255-1262.
- Brent, D. A., Kalas, R., Edelbrock, C., Costello, A. J., Dulcan, M. K., and Conover, N. (1986). Psychopathology and its relationship to suicidal ideation in childhood and adolescence. *Journal of the American Academy of Child Psychiatry, 25*, 666-673.
- Briere, J., and Runtz, M. (1988). Symptomatology associated with childhood sexual victimization in a nonclinical adult sample. *Child Abuse and Neglect, 12*, 51-59.

- Broadbent, A., and Bentley, R. (1997). *Child abuse and neglect Australia 1995-1996*. Canberra: Australian Institute of Health and Welfare.
- Broom, L., Duncan-Jones, P., Lancaster Jones, F., and McDonnell, P. (1977). *Investigating social mobility* (Departmental Monograph No. 1). Canberra: Department of Sociology, Australian National University.
- Brown, G. W., Lemyre, L., and Bifulco, A. (1992). Social factors and recovery from anxiety and depressive disorders: a test of specificity. *British Journal of Psychiatry*, 161, 44-54.
- Brown, J., Cohen, P., Johnson, J.G., and Salzinger, S. (1998). A longitudinal analysis of risk factors for child maltreatment: findings of a 17-year prospective study of officially recorded and self-reported child abuse and neglect. *Child Abuse and Neglect*, 22, 1065-1078.
- Brown, L. (1997). Child physical and sexual abuse and eating disorders: a review of the links and personal comments on the treatment process. *Australian and New Zealand Journal of Psychiatry*, 31, 194-199.
- Bryant, S.L., and Range, L.M. (1995). Suicidality in college women who were sexually and physically abused and physically punished by parents. *Violence and Victims*, 10, 195-201.
- Bulik, C. M., Sullivan, P. F., and Rorty, M. (1988). Childhood sexual abuse in women with bulimia. *Journal of Clinical Psychiatry*, 50, 460-464.
- Byrne, J.P. and Valdiserri, E.V. (1982). Victims of childhood sexual abuse: a follow-up study of a noncompliant population. *Hospital and Community Psychiatry*, 33, 938-940.
- Cabassi, J., and George, A. (1993). Remembering childhood - time limitations: the hurdle for childhood sexual assault survivors seeking compensation. *Alternative Law Journal*, 18, 286-289.

References

- Cain, M. (1995). *Juveniles in Detention: Issues of Over-representation*. Sydney, Australia: NSW Department of Juvenile Justice.
- Cheasty, M., Clare, A.W., and Collins, C. (1998). Relation between sexual abuse in childhood and adult depression: case-control study. *British Medical Journal*, *316*, 198-201.
- Choquet, M., Darves-Bornoz, J.M., Ledoux, S., Manfredi, R., and Hassler, C. (1997). Self-reported health and behavioral problems among adolescent victims of rape in France: results of a cross-sectional survey. *Child Abuse and Neglect*, *21*, 823-832.
- Cohen, J. A., and Mannarino, A. P. (1996). A treatment outcome study for sexually abused preschool children: initial findings. *Journal of the American Academy of Child and Adolescent Psychiatry*, *35*, 42-50.
- Cohen, Y., Spirito, A., Sterling, C., Donaldson, D., Seifer, R., Plummer, B., Avila, R., and Ferrer, K. (1996). Physical and sexual abuse and their relation to psychiatric disorder and suicidal behavior among adolescents who are psychiatrically hospitalized. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *37*, 989-993.
- Collings, S. J. (1995). The long-term effects of contact and noncontact forms of child sexual abuse in a sample of university men. *Child Abuse and Neglect*, *19*, 1-6.
- Common Law Editors. (1995). Criminal injury compensation. *Australian Torts Reporter*, *2*, 28-000.
- Coopersmith, S. (1981). *Coopersmith Self-Esteem Inventories*. Palo Alto, Ca. Consulting Psychologist's Press Inc.
- Crawford, A. (1987). Compensation for crime victims. *Law Institute Journal*, *61*, 812.
- Cubis, J., Lewin, T., and Dawes, F. (1989). Australian adolescents' perceptions of their parents. *Australian and New Zealand Journal of Psychiatry*, *23*, 35-47.

References

- Davidson, J.R., Hughes, D.C., George, L.K., and Blazer, D.G. (1996). The association of sexual assault and attempted suicide within the community. *Archives of General Psychiatry*, 53, 550-555.
- Davies, I. (1991). Compensation for criminal injuries in Australia: a proposal for change in Queensland. *Bond Law Review*, 3, 1-24.
- Davis, A.T., and Schrueder, C. (1990). The prediction of suicide. *Medical Journal of Australia*, 153, 552-554.
- Davis, M. (1994). Victims of crime - ACT community law reform committee report. *Canberra Law Review*, 1, 156-159.
- De Wilde, E.J., Kienhorst, I.C., Diekstra, R.F., and Wolters, W.H. (1992). The relationship between adolescent suicidal behavior and life events in childhood and adolescence. *American Journal of Psychiatry*, 149, 45-51.
- Dembo, R., Williams, L., La Voie, L., Berry, E., Getreu, A., Wish, E.D., Schmeidler, J., and Washburn, M. (1989). Physical abuse, sexual victimization, and illicit drug use: replication of a structural analysis among a new sample of high-risk youths. *Violence and Victims*, 4, 121-138.
- Dudley, M.J., Kelk, N.J., Florio, T.M., Howard, J.P., and Waters, B.G. (1998). Suicide among young Australians, 1964-1993: an interstate comparison of metropolitan and rural trends. *Medical Journal of Australia*, 169, 77-80.
- Elliott, M., Browne, K., and Kilcoyne, J. (1995). Child sexual abuse prevention: what offenders tell us. *Child Abuse and Neglect*, 19, 579-594.
- Epstein, N., Baldwin, L., and Bishop, D. (1983). The McMaster model of family functioning. *Journal of Marriage and Family Counselling*, 4, 19-31.
- Eysenck, H., and Eysenck, S. (1975). *Manual of the Eysenck Personality Questionnaire (Junior and Adult)*. London: Hodder and Stoughton.
- Eysenck, S., Eysenck, H., and Barrett, P. (1985). A revision of the psychoticism scale. *Personality and Individual Differences*, 6, 21-29.

- Famularo, R., Kinscherff, R., Fenton, T., and Bolduc, S. M. (1990). Child maltreatment histories among runaway and delinquent children. *Clinical Pediatrics, 29*, 713-718.
- Fergusson, D. M., and Lynskey, M. T. (1995a). Suicide attempts and suicidal ideation in a birth cohort of 16-year-old New Zealanders. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 1308-1317.
- Fergusson, D. M., and Lynskey, M. T. (1995b). Childhood circumstances, adolescent adjustment, and suicide attempts in a New Zealand birth cohort. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 612-622.
- Fergusson, D. M., Horwood, L. J., and Lynskey, M. T. (1995). Maternal depressive symptoms and depressive symptoms in adolescents. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 36*, 1161-1178.
- Fergusson, D. M., Horwood, L. J., and Lynskey, M. T. (1996). Childhood sexual abuse and psychiatric disorder in young adulthood: II. Psychiatric outcomes of childhood sexual abuse. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 1365-1374.
- Fergusson, D. M., Horwood, L. J., and Lynskey, M. T. (1997). Childhood sexual abuse, adolescent sexual behaviors and sexual revictimization. *Child Abuse and Neglect, 21*, 789-803.
- Fergusson, D.M., and Horwood, L.J. (1998). Exposure to interparental violence in childhood and psychosocial adjustment in young adulthood. *Child Abuse and Neglect, 22*, 339-357.
- Finkelhor, D. (1984). Long term effects of childhood sexual abuse. In D. Finkelhor (Ed.), *Child Sexual Abuse*. (pp. 188-199). New York: The Free Press.
- Finkelhor, D. (1986). Designing New Studies. In D. Finkelhor (Ed.), *A Sourcebook on Child Sexual Abuse*. (pp. 199-223). Beverly Hills, CA: Sage Publications.

- Finkelhor, D. (1993). Epidemiological factors in the clinical identification of child sexual abuse. *Child Abuse and Neglect, 17*, 67-70.
- Finkelhor, D. (1994a). The international epidemiology of child sexual abuse. *Child Abuse and Neglect, 18*, 409-417.
- Finkelhor, D. (1994b). Current information on the scope and nature of child sexual abuse. *Future of Children, 4*(2):31-53.
- Finkelhor, D., and Berliner, L. (1995). Research on the treatment of sexually abused children: a review and recommendations. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 1408-1423.
- Finkelhor, D., and Browne, A. (1985). The traumatic impact of child sexual abuse: a conceptualization. *American Journal of Orthopsychiatry, 55*, 530-541.
- Fleming, J. M. (1997). Prevalence of childhood sexual abuse in a community sample of Australian women. *Medical Journal of Australia, 166*, 65-68.
- Fleming, J., Mullen, P.E., Sibthorpe, B., Attewell, R., and Bammer, G. (1998). The relationship between childhood sexual abuse and alcohol abuse in women--a case-control study. *Addiction, 93*, 1787-1798.
- Friedlander, S., Weiss, D. S., and Traylor, J. (1986). Assessing the influence of maternal depression on the validity of the child behavior checklist. *Journal of Abnormal Child Psychology, 14*, 123-133.
- Friedrich, W. N., Beilke, R. L., and Urquiza, A. J. (1988). Behaviour problems in young sexually abused boys: a comparison study. *Journal of Interpersonal Violence, 3*, 21-28.
- Friedrich, W. N., Urquiza, A. J., and Beilke, R. L. (1986). Behavior problems in sexually abused young children. *Journal of Pediatric Psychology, 11*, 47-57.

References

- Fryer, G.E., and Miyoshi, T.J. (1994). A survival analysis of the revictimization of children: the case of Colorado. *Child Abuse and Neglect*, 18, 1063-1071.
- Gallup Organization (December, 1995). *Disciplining Children in America*. Princeton, NJ: Author.
- Garfinkel, P.E., Lin, E., Goering, P., Spegg, C., Goldbloom, D.S., Kennedy, S., Kaplan, A.S., and Woodside, D.B. (1996). Purging and nonpurging forms of bulimia nervosa in a community sample. *International Journal of Eating Disorders*, 20, 231-238.
- Garkawe, S. (1993). Criminal injuries compensation in the magistrates court. *Law Institute Journal*, 67(1and2), 46-49.
- Garrison, C.Z., Jackson, K.L., Addy, C.L., McKeown, R.E., and Waller, J.L. (1991). Suicidal behaviors in young adolescents. *American Journal of Epidemiology*, 133, 1005-1014.
- Gidycz, C.A., Coble, C.N., Latham, L., and Layman, M.J. (1993). Sexual assault experience in adulthood and prior victimization experiences. *Psychology of Women Quarterly*, 17, 151-168.
- Goldberg, D. (1978). *Manual of the General Health Questionnaire*. London: NFER Publishing Company.
- Goldberg, D. P., and Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, 9, 139-145.
- Goldman, R. J., and Goldman, J. D. G. (1988). The prevalence and nature of child sexual abuse in Australia. *Australian Journal of Sex, Marriage and Family*, 9, 94-106.
- Goldman, J. D. and Padayachi, U.K. (1997). The prevalence and nature of child sexual abuse in Queensland, Australia. *Child Abuse and Neglect*, 21, 489-498.

References

- Gomes-Schwartz, B., Horowitz, J., and Cardarelli, A. (1990). *Child Sexual Abuse: The Initial Effects*. Newbury Park, California: Sage Publications.
- Harrison, P. A., Fulkerson, J. A., and Beebe, T. J. (1997). Multiple substance use among adolescent physical and sexual abuse victims. *Child Abuse and Neglect*, 21, 529-539.
- Harter, S., and Pike, R. (1984). The pictorial scale of perceived competence and social acceptance for young children. *Child Development*, 55, 1969-1982.
- Hassan, R. (1995). Effects of newspaper stories on the incidence of suicide in Australia: a research note. *Australian and New Zealand Journal of Psychiatry*, 29, 480-483.
- Hazzard, A., Celano, M., Gould, J., Lawry, S., and Webb, C. (1995). Predicting symptomatology and self-blame among child sex abuse victims. *Child Abuse and Neglect*, 19, 707-714.
- Hughes, H. (1984). Measures of self-concept and self-esteem for children ages 3-12 years: a review and recommendations. *Clinical Psychology*, 4, 657-692.
- Hyde, C., Bentovim, A., and Monck, E. (1995). Some clinical and methodological implications of a treatment outcome study of sexually abused children. *Child Abuse and Neglect*, 19, 1387-1399.
- James, A.C., and Neil, P. (1996). Juvenile sexual offending: one-year period prevalence study within Oxfordshire. *Child Abuse and Neglect*, 20, 477-485.
- Jarvis, T.J, Tebbutt, J.S. and Mattick, R.P. (1995). Treatment approaches for alcohol and drug dependence: an introductory guide. New York: J. Wiley.
- Jehu, D., Klassen, C. and Gazan, M. (1986). Cognitive restructuring of distorted beliefs associated with child sexual abuse. *Journal of Social Work and Human Sexuality*, 4, 49-69.

References

- Johnsen, L.W., and Harlow, L.L. (1996). Childhood sexual abuse linked with adult substance use, victimization, and AIDS-risk. *AIDS Education and Prevention*, 8, 44-57.
- Johnson, J. H., and McCutcheon, S. (1980). Assessing life stress in older children and adolescents: Preliminary findings with the Life Events Checklist. In I. G. Sarason and C. D. Spielberger (Eds.), *Stress and Anxiety*. (pp. 111-125). Washington, DC: Hemisphere.
- Kaplan, M.L., Asnis, G.M., Lipschitz, D.S., and Chorney, P. (1995). Suicidal behavior and abuse in psychiatric outpatients. *Comprehensive Psychiatry*, 36, 229-235.
- Kazdin, A. E. (1990). Childhood Depression. *Journal of Child Psychology and Psychiatry*, 31, 121-160.
- Kendall-Tackett, K. A., Williams, L. M., and Finkelhor, D. (1993). Impact of sexual abuse on children: a review and synthesis of recent empirical studies. *Psychological Bulletin*, 113, 164-180.
- Kinard, E. M. (1994). Methodological issues and practical problems in conducting research on maltreated children. *Child Abuse and Neglect*, 18, 645-656.
- Kinard, E. M. (1995). Mother and teacher assessments of behavior problems in abused children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 1043-1053.
- Klein, K., Forehand, R., Armistead, L., and Long, P. (1997). Delinquency during the transition to early adulthood: family and parenting predictors from early adolescence. *Adolescence*, 32(125), 61-80.
- Kovacs, M. (1980). Rating scale to assess depression in school-aged children. *Acta Paedopsychiatrica*, 46, 305-315.

References

- Kovacs, M. (1985). The Children's Depression Inventory (CDI). *Psychopharmacology Bulletin*, 21, 995-998.
- Kovacs, M. *The Children's Depression Inventory: A self-rated depression scale for school-aged youngsters*. (unpublished)
- Kumar, G., Steer, R.A., and Deblinger, E. (1996). Problems in differentiating sexually from nonsexually abused adolescent psychiatric inpatients by self-reported anxiety, depression, internalization, and externalization. *Child Abuse and Neglect*, 20, 1079-1086.
- Kurtz, P.D., Kurtz, G.L., and Jarvis, S.V. (1991). Problems of maltreated runaway youth. *Adolescence*, 26, 543-555.
- Lanktree, C. B., and Briere, J. (1995). Outcome of therapy for sexually abused children: a repeated measures study. *Child Abuse and Neglect*, 19, 1145-1155.
- Lanktree, C., Briere, J., and Zaidi, L. (1991). Incidence and impact of sexual abuse in a child outpatient sample: the role of direct inquiry. *Child Abuse and Neglect*, 15, 447-453.
- Levy, H.B., Markovic, J., Chaudhry, U., Ahart, S., and Torres, H. (1995). Reabuse rates in a sample of children followed for 5 years after discharge from a child abuse inpatient assessment program. *Child Abuse and Neglect*, 19, 1363-1377.
- Lewinsohn, P.M., Rohde, P., and Seeley, J.R. (1993). Psychosocial characteristics of adolescents with a history of suicide attempt. *Journal of the American Academy of Child and Adolescent Psychiatry*, 32, 60-68.
- Liem, J.H., James, J.B., O'Toole, J.G., and Boudewyn, A.C. (1997). Assessing resilience in adults with histories of childhood sexual abuse. *American Journal of Orthopsychiatry*, 67, 594-606.

- Loeber, R., and Stouthamer-Loeber, M. (1986). Family factors as correlates and predictors of juvenile conduct problems and delinquency. In M. Tonry and N. Morris (Eds.), *An Annual Review of Research*. (pp. 29-149).
- Lombard, M. (1995). *Guide to Injury Compensation in Victoria*. Melbourne, Australia: Law Press.
- Lynch, D. L., Stern, A. E., Oates, R. K., and O'Toole, B. I. (1993). Who participates in child sexual abuse research? *Journal of Child Psychology and Psychiatry*, *34*, 935-944.
- Lynskey, M. T., and Fergusson, D. M. (1997). Factors protecting against the development of adjustment difficulties in young adults exposed to childhood sexual abuse. *Child Abuse and Neglect*, *21*, 1177-1190.
- Mannarino, A. P., and Cohen, J. A. (1986). A clinical-demographic study of sexually abused children. *Child Abuse and Neglect*, *10*, 17-23.
- Mannarino, A. P., Cohen, J. A., and Berman, S. R. (1994). The relationship between preabuse factors and psychological symptomatology in sexually abused girls. *Child Abuse and Neglect*, *18*, 63-71.
- Mannarino, A., Cohen, J., and Gregor, M. (1989). Emotional and behavioural difficulties in sexually abused girls. *Journal of Interpersonal Violence*, *4*, 437-451.
- Maxfield, M.G., and Widom, C.S. (1996). The cycle of violence. Revisited 6 years later. *Archives of Pediatrics and Adolescent Medicine*, *150*, 390-395.
- McClellan, J., Adams, J., Douglas, D., McCurry, C., and Storck, M. (1995). Clinical characteristics related to severity of sexual abuse: a study of seriously mentally ill youth. *Child Abuse and Neglect*, *19*, 1245-1254.

References

- McDaniel, E., and Leddick, G. (1978). *Elementary Children's Self-Concepts Factor Structures and Teacher Ratings*. Paper presented at the annual meeting of the American Psychological Association, Toronto.
- McDaniel, E., and Piers, E. (1973). *Longitudinal study of elementary school-effects: Design, instruments, and specifications for a field test. Final Report*. West Lafayette, Indiana: Purdue Educational Research Centre, Purdue University.
- McGee, R. A., Wolfe, D. A., Yuen, S. A., Wilson, S. K., and Carnochan, J. (1995). The measurement of maltreatment: a comparison of approaches. *Child Abuse and Neglect, 19*, 233-249.
- Meehan, P.J., Lamb, J.A., Saltzman, L.E., and O'Carroll, P.W. (1992). Attempted suicide among young adults: progress toward a meaningful estimate of prevalence. *American Journal of Psychiatry, 149*, 41-44.
- Mellott, R. N., and Wagner, W. G. (1993). A follow-up pilot study on the psychological adjustment of a sample of sexually abused girls. *Journal of Child Sexual Abuse, 21*, 137-147.
- Merry, S. N., and Andrews, L. K. (1994). Psychiatric status of sexually abused children 12 months after disclosure of abuse. *Journal of the American Academy of Child and Adolescent Psychiatry, 33*, 939-944.
- Mikulincer, M. (1994). *Human Learned Helplessness - A Coping Perspective*. New York: Plenum Press.
- Moyer, D. M., DiPietro, L., Berkowitz, R. I., and Stunkard, A. J. (1997). Childhood sexual abuse and precursors of binge eating in an adolescent female population. *International Journal of Eating Disorders, 21*, 23-30.
- Mrazek, P. J., and Mrazek, D. A. (1987). Resilience in child maltreatment victims: a conceptual exploration. *Child Abuse and Neglect, 11*, 357-366.

References

- Mullen, P. E., Martin, J. L., Anderson, J. C., Romans, S. E., and Herbison, G. P. (1993). Childhood sexual abuse and mental health in adult life. *British Journal of Psychiatry*, *163*, 721-732.
- Mullen, P. E., Martin, J. L., Anderson, J. C., Romans, S. E., and Herbison, G. P. (1994). The effect of child sexual abuse on social, interpersonal and sexual function in adult life. *British Journal of Psychiatry*, *165*, 35-47.
- Mullen, P. E., Martin, J. L., Anderson, J. C., Romans, S. E., and Herbison, G. P. (1996). The long-term impact of the physical, emotional, and sexual abuse of children: a community study. *Child Abuse and Neglect*, *20*, 7-21.
- Mullen, P., Romans-Clarkson, S., Walton, V., and Herbison, G. (1988). Impact of sexual and physical abuse on women's mental health. *Lancet*, *1*, 841-846.
- Nagel, D. E., Putnam, F. W., Noll, J. G., and Trickett, P. K. (1997). Disclosure patterns of sexual abuse and psychological functioning at a 1-year follow-up. *Child Abuse and Neglect*, *21*, 137-147.
- Nagy, S., DiClemente, R., and Adcock, A. G. (1995). Adverse factors associated with forced sex among southern adolescent girls. *Pediatrics*, *96*(5 Pt 1), 944-946.
- Newcomb, M. D., Huba, G. J., and Bentler, P. M. (1981). A multidimensional assessment of stressful life events among adolescents: Derivation and correlates. *Journal of Health and Social Behavior*, *22*, 400-415.
- Nolen Hoeksema, S., and Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, *115*, 424-443.
- Nolen Hoeksema, S., Girgus, J. S., and Seligman, M. E. (1992). Predictors and consequences of childhood depressive symptoms: a 5-year longitudinal study. *Journal of Abnormal Psychology*, *101*, 405-422.

References

- Nolen-Hoeksema, S., Seligman, M. E. P., and Girgus, J. S. (1986). Learned helplessness in children: a longitudinal study of depression, achievement, and explanatory style. *Journal of Personality and Social Psychology*, 51, 435-442.
- Nolen-Hoeksema, S., Seligman, M. E. P., and Girgus, J. S. (1989). *Sex differences in depression and explanatory style in pre-adolescents*. Paper presented at the Society for Research in Child Development, Kansas City, Kansas.
- NSW Department of Community Services. (1995). *Children, Adolescents, Families, The Ageing, People with a Disability, People affected by natural disasters, People of non-English speaking backgrounds*. Ashfield, Sydney, Australia: NSW Department of Community Services.
- Nunn, K. P. (1996a). Personal hopefulness: a conceptual review of the relevance of the perceived future to psychiatry. *British Journal of Medical Psychology*, 69, 227-245.
- Nunn, K. P., and Thompson, S. L. (1996c). The pervasive refusal syndrome: learned helplessness and hopelessness. *Journal of Clinical Child Psychology and Psychiatry*, 1, 121-132.
- Nunn, K. P., Lewin, T. J., Walton, J. M., and Carr, V. J. (1996b). The construction and characteristics of an instrument to measure personal hopefulness. *Psychological Medicine*, 26, 531-545.
- Oates, R. K. (1996). *The Spectrum of Child Abuse - Assessment, treatment and prevention*. New York: Brunner/Mazel.
- Oates, R. K., and Tong, E. (1987). Sexual abuse of children: an area with room for professional reforms. *Medical Journal of Australia*, 147, 544-548.
- Oates, R. K., Lynch, D. L., Stern, A. E., O'Toole, B. I., and Cooney, G. (1995). The criminal justice system and the sexually abused child. Help or hindrance? *Medical Journal of Australia*, 162, 126-130.

References

- Oates, R. K., O'Toole, B. I., Lynch, D. L., Stern, A., and Cooney, G. (1994). Stability and change in outcomes for sexually abused children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 33, 945-953.
- Oates, R.K., and Donnelly, A.C. (1997). Influential papers in child abuse. *Child Abuse and Neglect*, 21, 319-326.
- Palmer, R. L., and Oppenheimer, R. (1992). Childhood sexual experiences with adults: a comparison of women with eating disorders and those with other diagnoses. *International Journal of Eating Disorders*, 12, 359-364.
- Palmer, R. L., Oppenheimer, R., Dignon, A., Chaloner, D. A., and Howells, K. (1990). Childhood sexual experiences with adults reported by women with eating disorders: an extended series. *British Journal of Psychiatry*, 156, 699-703.
- Paradise, J. E., Rose, L., Sleeper, L. A., and Nathanson, M. (1994). Behavior, family function, school performance, and predictors of persistent disturbance in sexually abused children. *Pediatrics*, 93, 452-459.
- Parker, G., Tupling, H., and Brown, L. B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1-10.
- Pennbridge, J.N., Yates, G.L., David, T.G., and MacKenzie, R.G. (1990). Runaway and homeless youth in Los Angeles County, California. *Journal of Adolescent Health Care*, 11, 159-165.
- Peters, D.K., and Range, L.M. (1995). Childhood sexual abuse and current suicidality in college women and men. *Child Abuse and Neglect*, 19, 335-341.
- Peters, S.D., Wyatt, G.E., and Finkelhor, D. (1986). Prevalence. In D. Finkelhor (Ed.), *Sourcebook on Child Sexual Abuse*. (pp. 15-39). Beverly Hills, CA: Sage.
- Piers, E., and Harris, D. (1984). *Piers-Harris Children's Self-Concept Scale. Revised Manual*. Los Angeles, California: Western Psychological Services.

References

- Portegijs, P.J., Jeuken, F.M., van der Horst, F.G., Kraan, H.F., and Knottnerus, J.A. (1996). A troubled youth: relations with somatization, depression and anxiety in adulthood. *Family Practice*, 13, 1-11.
- Pribor, E.F., and Dinwiddie, S.H. (1992). Psychiatric correlates of incest in childhood. *American Journal of Psychiatry*, 149, 52-56.
- Rao, U., Weissman, M.M., Martin, J.A., and Hammond, R.W. (1993). Childhood depression and risk of suicide: a preliminary report of a longitudinal study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 32, 21-27.
- Reeker, J., Ensing, D., and Elliott, R. (1997). A meta-analytic investigation of group treatment outcomes for sexually abused children. *Child Abuse and Neglect*, 21, 669-680.
- Reeker, J., Ensing, D., and Elliott, R. (1997). A meta-analytic investigation of group treatment outcomes for sexually abused children. *Child Abuse and Neglect*, 21, 669-680.
- Reynolds, C. R., and Richmond, B. O. (1978). What I think and feel: a revised measure of children's manifest anxiety. *Journal of Abnormal Child Psychology*, 6, 271-280.
- Riggs, S., Alario, A. J., and McHorney, C. (1990). Health risk behaviors and attempted suicide in adolescents who report prior maltreatment. *Journal of Pediatrics*, 116, 815-821.
- Rivera, B., and Widom, C. S. (1990). Childhood victimization and violent offending. *Violence and Victims*, 5, 19-35.
- Robin, R.W., Chester, B., Rasmussen, J.K., Jaranson, J.M. and Goldman, D. (1997). Prevalence, characteristics, and impact of childhood sexual abuse in a Southwestern American Indian tribe. *Child Abuse and Neglect*, 21, 769-787.

References

- Romans, S., Martin, J., and Mullen, P. (1996). Women's self-esteem: a community study of women who report and do not report childhood sexual abuse. *British Journal of Psychiatry*, 169, 696-704.
- Runtz, M., and Briere, J. (1986). Adolescent "acting-out" and childhood history of sexual abuse. *Journal of Interpersonal Violence*, 1, 326-334.
- Runyan, D. K., Everson, M. D., Edelsohn, G. A., Hunter, W. M., and Coulter, M. L. (1988). Impact of legal intervention on sexually abused children. *Journal of Pediatrics*, 113, 647-653.
- Russell, D.E.H. (1983). The incidence and prevalence of intrafamilial and extrafamilial sexual abuse of female children. *Child Abuse and Neglect*, 7, 133-146.
- Salmelainen, P. (1995). *Criminal Victim Compensation: a profile of claims, claimants and awards*. Sydney: NSW Bureau of Crime Statistics.
- Scutt, J. (1990). *Women and the Law: Commentary and Materials*. Sydney, Australia: Law Book Company. Cited case of Ms T. v Crimes Compensation Tribunal of Victoria (1989) 3 V.A.R. 132 at 134-135, 136.
- Seligman, M. E. P. (1992). *Learned Optimism*. Sydney: Griffin Press.
- Seligman, M. E. P., Kaslow, N. J., Alloy, L. B., Peterson, C., Tanenbaum, R. L., and Abramson, L. Y. (1984). Attributional style and depressive symptoms among children. *Journal of Abnormal Psychology*, 93, 235-238.
- Sheridan, M.J. (1995). A proposed intergenerational model of substance abuse, family functioning, and abuse/neglect. *Child Abuse and Neglect*, 19, 519-530.
- Sibthorpe, B., Drinkwater, J., Gardner, K., and Bammer, G. (1995). Drug use, binge drinking and attempted suicide among homeless and potentially homeless youth. *Australian and New Zealand Journal of Psychiatry*, 29, 248-256.

- Siegel, J.M., Sorenson, S.B., Golding, J.M., et al. (1987). The prevalence of childhood sexual assault: The Los Angeles Epidemiologic Catchment Area project. *American Journal of Epidemiology*, 126, 1141-1164.
- Silverman, A.B., Reinherz, H.Z., and Giaconia, R.M. (1996). The long-term sequelae of child and adolescent abuse: a longitudinal community study. *Child Abuse and Neglect*, 20, 709-723.
- Smolak, L., Levine, M. P., and Sullins, E. (1990). Are child sexual experiences related to eating-disordered attitudes and behavior in a college sample? *International Journal of Eating Disorders*, 9, 167-178.
- Spaccarelli, S., and Fuchs, C. (1997). Variability in symptom expression among sexually abused girls: developing multivariate models. *Journal of Clinical Child Psychology*, 26, 24-35.
- Spaccarelli, S., and Kim, S. (1995). Resilience criteria and factors associated with resilience in sexually abused girls. *Child Abuse and Neglect*, 19, 1171-1182.
- SPSS-Win - Statistical Products and Service Solutions. (1993). *SPSS Version 6.0 for Windows*. Chicago, Illinois: SPSS.
- Stein, M.B., Walker, J.R., Anderson, G., Hazen, A.L., Ross, C.A., Eldridge, G., and Forde, D.R. (1996). Childhood physical and sexual abuse in patients with anxiety disorders and in a community sample. *American Journal of Psychiatry*, 153, 275-277.
- Stern, A. E., Lynch, D. L., Oates, R. K., O'Toole, B. I., and Cooney, G. (1995). Self-esteem, depression, behaviour and family functioning in sexually abused children. *Journal of Child Psychology and Psychiatry*, 36, 1077-1089.
- Sullivan, P. F., Bulik, C. M., Carter, F. A., and Joyce, P. R. (1995). The significance of a history of childhood sexual abuse in bulimia nervosa. *British Journal of Psychiatry*, 167, 679-682.

References

- Tebbutt, J., Swanston, H., Oates, R. K., and O'Toole, B. (1997). 5 years after child sexual abuse: persisting dysfunction and problems of prediction. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 330-339.
- Tennant, C. (1977). The General Health Questionnaire: a valid index of psychological impairment in Australian populations. *Medical Journal of Australia*, 2, 392-394.
- Tiggemann, M., Winefield, A.H., Winefield, H.R., and Goldney, R.D. (1991). The stability of attributional style and its relation to psychological distress. *British Journal of Clinical Psychology*, 30, 247-255.
- Tiller, J., Krupinski, J., Burrows, G., Mackenzie, A., Hallenstein, H., and Johnstone, G. (1997). A prospective study of completed and attempted youth suicides in Victoria - A report from the Coroner's Working Party on Suicide. Department of Psychiatry, University of Melbourne.
- Ussher, J. M., and Dewberry, C. (1995). The nature and long-term effects of childhood sexual abuse: a survey of adult women survivors in Britain. *British Journal of Clinical Psychology*, 34(Pt 2), 177-192.
- Verhulst, F. C., and Althaus, M. (1988). Persistence and change in behavioral/emotional problems reported by parents of children aged 4-14: an epidemiological study. *Acta Psychiatrica Scandinavica*, 77(339), 1-28.
- Wagner, B. M. (1997). Family risk factors for child and adolescent suicidal behavior. *Psychological Bulletin*, 121, 246-298.
- Waller, G. (1998). Perceived control in eating disorders: relationship with reported sexual abuse. *International Journal of Eating Disorders*, 23, 213-216.
- Walsh, G. (1994). *Recent developments in the law relating to victims compensation*. Sydney: Continuing Legal Education Department of the College of Law.
- Waterman, J., and Kelly, R. J. (1993). Mediators of effects on children. What enhances optimal functioning and promotes healing? In J. Waterman, R. Kelly,

References

- M. Oliveri, and J. McCord (Eds.), *Behind the Playground Walls, Sexual Abuse in Preschools*. (pp. 222-239). New York: Guildford Publications.
- Weatherburn, D., and Lind, B. (1998). *Poverty, Parenting, Peers and Crime-Prone Neighbourhoods*. Canberra, ACT, Australia: Australian Institute of Criminology.
- Welch, S. L., and Fairburn, C. G. (1994). Sexual abuse and bulimia nervosa: three integrated case control comparisons. *American Journal of Psychiatry*, 151, 402-407.
- Whiffen, V. E., and Clark, S. E. (1997). Does victimization account for sex differences in depressive symptoms? *British Journal of Clinical Psychology*, 36(Pt 2), 185-193.
- Whitbeck, L. B., Hoyt, D. R., and Ackley, K. A. (1997). Families of homeless and runaway adolescents: a comparison of parent/caretaker and adolescent perspectives on parenting, family violence, and adolescent conduct. *Child Abuse and Neglect*, 21, 517-528.
- Whittaker, E. (1989). Expenses reasonably incurred as a result of injury. *Legal Services Bulletin*, 14, 90. Cited case of *Sharman v Evans*, 138 CLR 563.
- Widom, C.S. (1989). Child abuse, neglect, and adult behavior: research design and findings on criminality, violence, and child abuse. *American Journal of Orthopsychiatry*, 59, 355-367.
- Widom, C.S. (1991). The role of placement experiences in mediating the criminal consequences of early childhood victimization. *American Journal of Orthopsychiatry*, 61, 195-209.
- Widom, C. P., and Ames, M. A. (1994). Criminal consequences of childhood sexual victimization. *Child Abuse and Neglect*, 18, 303-318.

References

- Williams, C. L., and Uchiyama, C. (1989). Assessment of life events during adolescence: the use of self-report inventories. *Adolescence*, 24, 95-118.
- Williams, L. M. (1994). Recall of childhood trauma: a prospective study of women's memories of child sexual abuse. *Journal of Consulting and Clinical Psychology*, 62, 1167-1176.
- Wilsnack, S. C., Vogeltanz, N. D., Klassen, A. D., and Harris, T. R. (1997). Childhood sexual abuse and women's substance abuse: national survey findings. *Journal of Studies on Alcohol*, 58, 264-271.
- Wind, T. W., and Silvern, L. (1994). Parenting and family stress as mediators of the long-term effects of child abuse. *Child Abuse and Neglect*, 18, 439-453.
- Wonderlich, S. A., Brewerton, T. D., Jovic, Z., Dansky, B. S., and Abbott, D. W. (1997). Relationship of childhood sexual abuse and eating disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 1107-1115.
- Wonderlich, S.A., Wilsnack, R.W., Wilsnack, S.C., and Harris, T.R. (1996). Childhood sexual abuse and bulimic behavior in a nationally representative sample. *American Journal of Public Health*, 86, 1082-1086.
- Wozencraft, T., Wagner, W., and Pellegrin, A. (1991). Depression and suicidal ideation in sexually abused children. *Child Abuse and Neglect*, 15, 505-511.
- Wyatt, G.E. (1985). The sexual abuse of Afro-American and White-American women in childhood. *Child Abuse and Neglect*, 9, 507-519.
- Yellowlees, P. M., and Kaushik, A. V. (1994). A case-control study of the sequelae of childhood sexual assault in adult psychiatric patients. *Medical Journal of Australia*, 160, 408-411.
- Zlotnick, C., Hohlstein, L.A., Shea, M.T., Pearlstein, T., Recupero, P., and Bidadi. (1996). The relationship between sexual abuse and eating pathology. *International Journal of Eating Disorders*, 20, 129-134.

References

Zubrick, S.R., Silburn, S.R., Garton, A., Burton, P., Dalby, R., Carlton, J., Shepherd, C., and Lawrence, D. (1995). Australian Bureau of Statistics and the Institute for Child Health Research. Western Australian Child Health Survey: Developing Health and Well-being in the Nineties.