Replication of Child Sexual Abuse in Males

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ABSTRACT

This thesis reviewed the major methodological, theoretical and empirical research literature pertaining to replication of child sexual abuse (CSA) in males. The review concluded that a dearth of scientific evidence exists in support of child sexual abuse replication.

The aim of the current study was to empirically examine the relationship between childhood sexual victimization experiences and adult offending behaviour in males.

Some 45 male incarcerated child sexual offenders undergoing treatment were interviewed about their childhood sexual experiences and their offence history. Some 78% of the sample were sexually abused as children and data from this group were used to study CSA replication.

Simple replication of any characteristic from the first, last or all CSA experience(s) was not apparent from simple correlation analysis. Such characteristics included age of victim, gender, victim-offender relationship, sexual act and force associated with abuse.

Multivariate analysis revealed that the gender of the subject's first victim was able to be predicted from a mean gender rating of each subject's perpetrators and a mean physical rating of each subject's entire child sexual abuse history. This function was able to correctly predict the gender of the first victim of 79% of the abused sample. Gender replication was found to be significantly modulated by happy, physically pleasant and physically intrusive child sexual abuse experiences.

It is suggested that the results are more supportive of social learning explanations than psychodynamic models of CSA replication. The need for more sophisticated, multivariate analysis of replication is stressed. Finally, the results are discussed in terms of their implications for future research and treatment of male victims and adult perpetrators of child sexual abuse.

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INTRODUCTION AND LITERATURE REVIEW

1-1 INTRODUCTION.

Over the years a plethora of single factor theories have posited answers to the question of why adults sexually abuse children. Such explanations of child sexual abuse (CSA) have cited causal factors ranging from personality defects (Peters, 1976; Panton, 1978), narcissistic inversion (Fraser, 1976), alcohol problems (Morgan, 1982), deviant sexual arousal (Freund, 1967; Quinsey, Steinman, Bergensen, & Holmes, 1975), poor impulse control (Gebhard, Gagnon, Pomeroy, & Christenson, 1965), exposure to child pornography (Goldstein, Kant, & Hartman, 1973), unresolved oedipal conflicts (Fenical, 1945) dysfunctional family systems (Lustig, Dresser, Spellman, & Murray, 1966), male socialisation (Rush, 1980), and the list goes on. Probably the most popular of these simple aeitiological accounts which is still attracting research, clinical and popular interest today is the notion that childhood sexual victimization is the cause of later offending behaviour (Gebhard et al., 1965; McGuire, Carlisle, & Young, 1965; Stoller, 1975; Groth, Hobson, & Gary, 1982). Not surprisingly, along with most other single factor explanations, the "victim-abuser" theory has been found limited in its ability to explain the diverse range of offending behaviours and developmental backgrounds of child sexual abusers. Some of the more obvious shortfalls of the theory are that many people who were abused as children do

not go on to abuse as adults and that many offenders also report no abuse as children (Finkelhor, 1979).

Based on the strength of such evidence, it seems clear that child sexual abuse of boys may at most be a contributory factor but certainly not a necessary factor in the development of sexually abusive behaviour (Watkins & Bentovim, 1990). However, as one precondition or factor within more comprehensive multifactorial aeitiological formulations (c.f., Marshall & Barbaree, 1990; Finkelhor, 1984), it appears less clear what influence, if any, a CSA history has on the characteristics of an offender's behaviour.

This study aims to reexamine the victim-abuser link, not in terms of the question of whether or not abused children develop into abusing adults, but rather whether or not CSA experiences have an influence on the characteristics of later offending behaviour in those offenders who were abused as children. Specifically, the question this research seeks to address is - "For those males who were abused as children and later abuse other children, is their offending behaviour a replication of their childhood abuse experiences?" Or, expressed another way - "Can one predict the characteristics of the abused abuser's offence(s) based upon knowledge of his childhood abuse experiences?"

The importance of finding answers to these questions lies mainly in treatment implications, both at the early intervention stages following the disclosure of CSA in boys, as well as at the treatment stages of adult perpetrators whose long offence histories may exist in some form as a recapitulation of CSA experiences. Being able to predict

objects of later offending and ultimately those children at risk of becoming abusers, is important in the prioritising of treatment resources.

1-2 MALE VICTIMS OF CHILD SEXUAL ABUSE: AN INTRODUCTION.

Traditionally, most of the CSA literature has focused on female victims. Several reasons exist for this. Firstly, the feminist movement focused public and professional attention primarily toward female victims of sexual assault committed by adult males. Secondly, some authors (e.g. Finkelhor, 1984) have highlighted the masculine ethic of western cultures which ensured that male CSA remained hidden. Because the male role in western society is not equated with being a victim, the disclosure of abuse would thus identify the victim as a male under threat. Additional societal beliefs concerning the male's physical ability to resist victimization, the male being considered responsible for the initiation of any sexual encounter and presumed to enjoy all sexual experiences, acted to further preclude public exposure about male CSA (Nielsen, 1983; Roger & Terry, 1984).

Over recent years the increasing number of male CSA cases coming to professional attention has been mirrored by growing research interest in the area. Issues studied and discussed in the literature include victim characteristics (Finkelhor, 1984; Pierce & Pierce, 1985), perpetrator characteristics (Howells, 1981; Groth & Freeman-longo, 1979; Finkelhor, 1984; Langevin, 1985; Marshall, Barbaree, &

Christophe, 1986), epidemiology of male CSA (Finkelhor,
1979;1981; Fromuth & Burchard, 1987), short and long term
sequelae of CSA (Dimock, 1988; DeJong, 1982; Watkins &
Bentovim,1990), treatment of abused boys (Bruckner &
Johnson, 1987; Watkins & Bentovim, 1990) and much
theoretical discourse on the causes of male CSA (Finkelhor,
1984; Howells, 1981; Marshall & Barbaree, 1990). Of interest
to both theoreticians and clinicians alike has been the
focus on the victim-abuser cycle, otherwise expressed as
intergenerational transmission, reenactment, recapitulation
or replication of CSA. However, before this review delves
directly into issues of CSA replication per se, a number of
general conceptual and practical difficulties which impinge
upon the measurement, and thus the study, of CSA replication
will be reviewed.

1-3 CONCEPTUAL AND DEFINITIONAL ISSUES IN CSA RESEARCH.

Probably the most contentious methodological issue has
been the lack of consensus among researchers and clinicians
about what constitutes CSA: What age defines a child? What
age disparity between partners defines an abusive
relationship? Which acts define sexually abusive behaviour?

1-3-1 Victim-Perpetrator Age Disparity.

If CSA definitions are to avoid including those acts of
mutual sexual curiosity between peers, or consensual sexual
encounters between adolescents and older partners, specified

partner age differences are required to differentiate instances involving coercion or abuse of power. The victim-abuser age disparity has most commonly been defined by researchers as five years or more. Others, such as Johnson (1988;1989), have supported the two year age difference, among other criteria, to define CSA. This stance has arisen out of more recent aknowledgement of younger perpetrators (Watkins & Bentovim, 1990). Others still, have advocated, with regard to child perpetrators, no age criterion, such that the abuse is defined entirely in behavioural terms (Cantwell, 1988).

Some researchers have chosen a sliding scale whereby the victim-perpetrator age disparity changes as the age of the child changes. Fromuth (1986) and Finkelhor (1979) advocated the five year age difference for children 12 years or younger, and for children 13 to 16 years the partner had to be at least 10 years older. Fromuth (1986) further specified that for the 12 years and under victim group the perpetrator had to be at least 16 years of age.

1-3-2 Age of Child Victim.

The considerable lack of consensus over the parameters for victim-perpetrator age disparity is also evident in the issue of what age limit defines a child victim. The age ceilings advocated in the more recent literature have included 15 years (Silbert & Pines, 1981; Mrazek, Lynch, & Bentovim, 1983; Baker & Duncan, 1985), 16 years (Finkelhor, 1979;1984; DeJong, Hervada, & Emmett,

1983) and 17 years (Child Abuse & Neglect Publications, 1981; Russell, 1983; Wyatt & Peters, 1986).

Such differences in the age definitions of a child victim would no doubt be influenced by the definition of sexual maturity advocated and enforced by the particular legal system of a society. It appears most researchers have opted more for consistency with the local legal definition of age, ahead of conformity between studies across states or countries. Note that the current New Zealand legal code entitles an adult to engage in consensual sexual relations with a person aged 16 years or older.

1-3-3 Sexually Abusive Behaviour.

The issue of what is sexually abusive behaviour immediately raises the difficult question of delineation of such behaviour from more 'normal' forms of non-sexual physical contact. The term 'sexualised attention' (Haynes-Seman & Krugman, 1989; Watkins & Bentovim, 1990) has been used to delineate abusive from acceptable behaviour. Whilst, for instance, affectionate cuddling, washing of genitals and play-fighting may be considered appropriate behaviour, the persistent stroking of a baby's leg or buttocks which is arousing to the parent would be considered an example of sexualised attention (Watkins & Bentovim, 1990).

Another major issue in the debate about what constitutes a sexually abusive act is whether non-contact, as well as contact, abuse should be included in CSA operational definitions. Forms of non-contact abuse include

exhibitionism, exposure to upsetting sexual activities or pornography and sexual propositioning. Contact abuse implicates all acts involving sexual contact, including fondling of genitals and breasts, intercourse, oral or anal sex (Peters, Wyatt, & Finkelhor 1986). The majority of studies have traditionally included both types of abuse (Finkelhor, 1979; 1984; Fromuth, 1986; Wyatt, 1985). However, some have preferred to restrict the definition to acts of contact only, in light of recent research indicating that non-contact forms of abuse are not as likely to cause negative long-term effects (Sorrenti-Little, Bagley, & Robertson, 1984).

Peters et al., (1986) recommend the reporting of prevalence rates obtained from operational definitons including both contact and non-contact forms of abuse, such as in the Russell (1983) and Wyatt (1985) studies. Peters et al., (1986) argue that it is more useful to gather data using broader definitions that can be trimmed at a later date for comparison purposes if required.

1-3-4 Force and Consent.

Vander Mey (1988) raised the pertinent question of when is a sexual encounter between two children of similar age an abusive one?

> "When is a sexual act 'normal' sex play of an innocent
> nature or a consequence of the 'normal
> aggressiveness of a sexually maturing adolescent' versus
> outright aggressive victimization of a peer." (p62).

Some researchers have qualified their definitions of sexually abusive behaviour to accommodate abusive peer relationships. Such relationships commonly do not qualify as abusive because they fail to fulfill traditional age disparity criteria. To compensate for this some CSA definitions have included sexual experiences the victim considers to be coercive (Wyatt, 1985) abusive (Finkelhor, 1984) or the result of pressure or force (Burnam, 1985). This inclusion seems especially relevant to the identification of peer abuse experiences which need to be distinguished from 'normal' consentual peer sexual exploration. The idea of informed consent was included in the commonly accepted CSA definition (Watkins & Bentovim, 1990) of Schechter and Rogerge (1976):

> "The involvement of dependent developmentally immature children or adolescents in sexual activities they do not truely comprehend, and to which they are unable to give informed consent and that violate the sexual taboos of family roles."

The definitional criteria of child sexual abuse utilized in the current study are presented in section 2-5 of the Method chapter.

1-4 PREVALENCE OF MALE CHILD SEXUAL ABUSE.

General prevalence figures of male CSA have been obtained from two main population sources: North American community samples (Finkelhor, 1981; Kersher & McShane, 1984)

and North American College samples (Finkelhor, 1979; Fritz, Stoll, & Wagner, 1981; Risen & Koss, 1987; Fromuth & Burchard, 1987; 1989). Reviews of these prevalence studies (Finkelhor, 1984; Peters, Wyatt, & Finkelhor, 1986; Fromuth & Burchard, 1987) reveal considerable variation in prevalence rates for males. Indeed, Peters, Wyatt, & Finkelhor (1986) reported male prevalence rates ranging from 3 to 31%

Finkelhor's (1981) Boston community study sampled 185 fathers of 6 to 14 year old children, of which 6% reported an abusive childhood sexual experience. Kersher and McShane's (1984) Texas survey of 461 males with a valid drivers license found a 3% prevalence rate of CSA.

Finkelhor's (1979) well publicised survey of male and female college students found a male CSA prevalence rate of 8.7%, whilst Fritz, et al., (1981) reported a prevalence rate of 4.8% in 952 male undergraduate college students. A more recent sample of 2972 males in higher education found 7.3% of males reported a childhood sexual experience (Risen & Koss, 1987). Finally, Fromuth and Burchard (1989) found a substantially higher rate of abuse in two large samples of North American College men, 13% in one area and 15% in another. Whilst these college samples appear somewhat restrictive in their general application, Risen and Koss (1987) argued that because 26% of American males are involved in higher education, the college prevalence figures are certainly applicable to at least a sizeable proportion of the population.

Because the vast majority of the epidemiological research has been conducted in the United States of America,

one should be aware of the uncontrolled cultural influences on these CSA prevalence rates when relating these figures to New Zealand samples.

1-4-1 Effects of Definition on Prevalence Rates.

Any attempt to summarise the prevalence rates of CSA in general male population samples is hindered by the disparity in definitions used across studies. Fromuth and Burchard (1987) examined the effect of operational definitions of CSA on prevalence rates. They surveyed 684 college students and utilized six different definitions. Broad definitions included both contact and non-contact experiences plus an age discrepancy between participants of at least five years. Restrictive definitions included contact abuse only, negative perception of the experience as well as the age discrepancy which depended upon the subject's age at the time of the abuse. It was found that prevalence rates varied dramatically as a function of definition: the broader the definition the higher the proportion of males reporting abuse.

Fromuth and Burchard (1987) then compared prevalence figures they obtained from different definitions with figures reported by studies utilising analagous definitions. They found that the studies utilizing restrictive definitions had the more consistent findings (rates ranging between 2-3%) than those obtained from studies using broader definitions.

The Fromuth and Burchard (1987) findings were supported

by Finkelhor (1984) who adjusted his two prevalence surveys to be consistent with the conservative definition of abuse which included contact abuse only and the age discepancy criteria. His prevalence rates dropped from 6% to 3.2% (Finkelhor, 1981) and 8.7% to 4.1% (Finkelhor, 1979).

1-4-2 Effects of Data-gathering Methodology on Prevalence Rates.

Another important factor which has contributed to the wide range in prevalence figures has been the type of data-gathering methodologies used (Peters, Wyatt, & Finkelhor, 1986).

Peters, et al., (1986) reviewed and compared the CSA surveys that used self-administered questionnaires and face-to-face interviews. With one exception, the studies that utilized self-administered questionnaires tended to report lower prevalence rates than those using face-to-face interview techniques. Telephone surveys reported the lowest rates. In light of such evidence, Peters et al., (1986) recommended the use of face-to-face interviews for a number of reasons. Firstly, such interviews allow for the establishment of rapport, they place the expectation on the respondent for honesty and provide opportunity for clarification of questions or terminology.

Differences in the number of screen questions used in the interview situation have also been identified as accounting for some of the variation obtained in prevalence rates (Peters, et al., 1986). Significantly higher

prevalence rates have been reported in surveys which have used multiple questions about abusive experiences, as opposed to suryeys which utilized single generalized probes (Peters, et al., 1986). An example of a single generalised probe is - "As a child were you ever sexually abused" (Kercher & McShane,1984). Peters, et al., (1986) caution against the use of single screen questions and recommend multiple relationship-specific and activity-specific screen questions, such as used by Russell (1983) or Wyatt (1985). The reasons they give for recommending multiple screens are: 1) They give greater opportunity for recall of abuse history; 2) They allow an indication to be given of the types of experiences the researchers are looking for; and 3) They avoid the use of general labels like "sexual molestation" that may lead to greater variance in answers due to individual differences in the understood meanings of such words.

1-4-3 Issues of Under-reporting in Male Victim Populations.

Probably, the most basic of factors that affect (usually depress) CSA prevalence rates is reticence on behalf of victims about disclosing their CSA experiences.

Conservative prevalence figures of CSA in the general male population report rates of 2-4%, compared with conservative prevalence rates of 10% for females (Finkelhor, 1984). However, whilst males represent one third of victims, due to lower rates of reporting abuse in this population, they represent only one eighth of cases that come to

official attention (Finkelhor, 1986; Fritz, 1981).

Nielson (1983), Finkelhor (1986) and others have postulated some reasons for such disclosure reticence in male victims. They believed there exists in children more fear of loss of the greater freedom attributed to boys in society through admitting the reality of CSA. Furthermore, Watkins and Bentovim (1990) argue the existence of a myth endemic in western society that boys need punishment rather than help, which may further strengthen the tight-lipped attitude of boys disclosing their abuse experiences.

Of greater relevance to this study, however, are the dynamics in adult, as opposed to child, male populations. Of particular importance are those factors that may potentiate the silence of male adult child sexual offenders who were victims as children.

Nasjleti (1980) and Nielson (1983) contended that denial of victimization, is synonomous with the societal view of masculinity: self-reliance, independence, sexual prowess and physical aggression. Nasjleti (1980) interviewed ten adolescent male victims of CSA in order to elucidate their reasons for being reticient about disclosing their abuse. Fear of being disbelieved and shame were posited as the main reasons for their hesitency to disclose.

Moreover, for males to identify as victims means they may have to face the dual taboo of incest and homosexuality (Nielson, 1983; Finkelhor, 1986). Also, stemming from the male value of 'sexual prowess' and the role of being the initiator in sexual encounters, is an attitude that abuse by female perpetrators is viewed more as a normative sexualization experience than abuse by males (Watkins &

Bentovim, 1990; Dimock, 1988).

Little has been written about whether any differences exist in the abuse 'disclosure dynamics' of adult male abusers. Possibly, the only differences lie in the opposite direction: child molesters may be more willing to self report their own victimization possibly to seek meaning for, or rationalize, their own abusive behaviour (Finkelhor, 1984). The victim-abuser cycle is a well known excuse cited by many child molesters as a means of minimizing their personal responsibility for their own offending behaviour. However, empirical evidence in this area appears non-existent.

Greater, it seems, are the difficulties involved in gaining accurate disclosure of offending behaviour in male abuser populations.

1-5 METHODOLOGICAL PROBLEMS IN REPORTING OFFENDING
    BEHAVIOUR.

Equally problematic to the current study are the methodological quandaries associated with getting adult offenders to accurately report the characteristics of their own offences. In order to gather accurate data with which to examine CSA replication, valid information is required about offending behaviour as well as about child sexual abuse experiences.

Presumedly, prevalence and incidence rates reported by offenders would be influenced by definition in a similar fashion to abuse rates reported by victims: the more liberal

the definitional criteria of a child sexual offence, the higher the rate of reporting. There appears, however, to be little written in this area.

Possibly the major influence on rates of reporting of child sexual offences in populations of incarcerated abusers is the common distortion and minimization of the quality of their offensive behaviour. This has the effect of offenders portraying their offensive behaviour as seldom involving force or intrusive sexual acts, such as intercourse (Marshall, Barbaree, & Christophe, 1986). Because of this, many treatment programmes for child molesters include modules involving cognitive restructuring which serve to address offenders' beliefs and attitudes about their offending behaviour. (Salter, 1988; Ward, Neilson, & Marshall, 1990)

Fear of legal reprisal for previously undisclosed offences is also a major concern for offenders reporting illegal behaviour that has hitherto escaped legal detection or conviction. Kaplan (1985) examined the effect confidentiality assurance had on the validity of self-reported crimes of sexual offenders. Only 5% of the sex crimes reported using stringent confidentiality assurance outside of the criminal justice system, were reported in response to the verbal assurance of a parole officer only.

Because of the powerful effect of confidentiality on self-report, Abel and Rouleau (1990) recommend caution when interpreting studies that are vague about how confidentiality was obtained.

1-6 THEORIES OF CHILD SEXUAL ABUSE REPLICATION.

The postulated mechanisms by which a CSA history may influence the development of sexual offending behaviour are the subject of the following two sections. The behavioural and psychoanalytic schools of psychology are the two main theoretical standpoints from which the various explanations of CSA reenactment have been espoused.

1-6-1 Behavioural Theories.

Behavioural models utilize conditioning, operant and social learning models to account for the aquisition and maintenance of sexual preferences, cognitions and behaviour linked to the sexual abuse of children (Laws & Marshall, 1990). While such preferences and behaviours are classified as deviant or abnormal, behavioural models view the mechanisms by which they are aquired as the same by which other people learn more normal forms of sexual behaviour (Laws & Marshall, 1990; McGuire, Carlise, & Young, 1965).

1-6-1-1 Classical Conditioning Processes.

Pavlovian conditioning processes are viewed as being fundamental to the aquisition of deviant sexual preferences (Langevin & Martin, 1975; Rachman, 1966; McGuire, et al., 1965; Laws & Marshall, 1990), which once established are

likely to drive deviant behaviour in offenders (Laws &
Marshall, 1990).

McGuire, et al., (1965) stressed the importance of
higher-order conditioned stimuli (CS), especially fantasy,
in the aeitiology and maintenance processes of deviant
sexual arousal. They proposed that in many cases initial
deviant experience is a one-off event which on its own is
insufficient to establish conditioning. Therefore, in such
cases, higher-order Pavlovian conditioning (Laws & Marshall,
1990) is established through repeated masturbation to a
fantasy of the real deviant experience. Moreover, McGuire,
et al., (1965) predicted that a process of "distortion and
selection of cues" occurs, through imperfect recall of the
CSA experience, such that the significant cues are selected
by the subject as the focus of fantasy. Thus, the McGuire,
et al., (1965) hypothesis predicted that through use of
sexual fantasy and masturbation over time, deviant arousal
would occur in response to a "variety of sexual stimuli
which may be seen as lying along a generalization gradient
at the center of which lies the original conditional
stimulus" (Laws & Marshall, 1990).

In reference to the process of cue selection, Finkelhor
(1984) proposed that any characteristic of the abuse
experience that was highly eventful for the victim, such as
it being very painful or pleasant, will more likely come to
conscious awareness during masturbation. Thus, these
characteristics will become most eroticised, and be
maintained as a central theme in masturbation fantasies.

Laws and Marshall (1990) elaborated on the predictions
of McGuire, et al., (1965) and discussed the conditioning

processes likely to maintain a tendency for the initial deviant sexual stimuli. Firstly, for the erotic quality of the initial sexual proclivity to be maintained (and reflective of the parent deviant sexual experience) some intermittent pairing of the original CS with the unconditioned stimulus (UCS) or a higher-order CS is necessary to prevent extinction. Other processes likely to aid in preserving the erotic nature of the original stimuli (ie. maintain a steep generalization gradient) would be focused recall or fantasy of the original experience and similar and repetitive UCS exposure (such as multiple abuse episodes with the one offender).

It is important to note that conditioning explanations only predict aquisition and distortion of deviant sexual preference and do not assume that all deviant behaviour is driven by deviant preference; nor do they assume that sexual preference is accurately reflected in behaviour. Whilst reenactment of behaviour is made more probable by highly erotic preference for congruous behavioural stimuli (Laws & Marshall, 1990), an examination of operant and social learning processes is necessary to fully account for the development and maintenance of deviant behaviour.

1-6-1-2 Operant Processes.

Laws and Marshall (1990) and Schwartz (1984) highlighted how the processes of operant and classical conditioning are often indistinguishable, with elements of

each working in conjunction rather than separately. Similar to the maintenance of erotic conditioned stimuli, erotic reinforcing stimuli must occasionally follow sexual acts or cognitions, or the sexual response elicited by these instrumental behaviours will eventually disappear (Laws & Marshall, 1990).

Finkelhor (1979) suggested that reinforcement processes are likely to be important in establishing deviant behaviour. Sexual involvement with children is likely to be strongly reinforced by sexual arousal and orgasm. Punishing consequences are initially likely to be rare because the offender in his first offence is more likely to be adolescent and his victim is more likely to be closer in age to him. Punishment, in the form of social condemnation may occur only at a later stage when the perpetrator is an adult, by which time the behaviours have already become strongly reinforced (Howells, 1981). However, the abused-abuser relationship may be nonexistent when the CSA experience is not emotionally or physically pleasant for the victim, or in children who are discouraged from developing sexual fantasies, or who are able to develop more normative outlets for emotional and sexual intimacy (Finkelhor, 1986). Such contingencies would tend to extinguish the behavioural chains leading to replication of earlier CSA.

To summarise, all operant explanantions highlight that the preconditions that occasion the reenactment of earlier sexual abuse experiences involve differential reinforcement of the behavioural sequences that lead to sexual acting out of CSA experiences, combined with punishment of

behaviours incompatible with the developing deviant
behaviour (Laws & Marshall, 1990).

1-6-1-3 Social Learning Processes.

Social learning approaches highlight the processes of
modeling, cognitions about social relationships and the
ability to form, and function within, them (Banbura, 1973;
1977; Laws & Marshall, 1990).

Laws and Marshall (1990) related to the learning of
child sexual offending the three major processes postulated
by Bandura and Walters (1963) as being most relevant to the
learning of sexual behaviour: 1) participant modeling; 2)
vicarious learning; and 3) symbolic modeling.

Participant modeling refers to the process by which a
person directly experiences and then imitates the behaviour
of a model (Laws & Marshall, 1990). Freeman-Longo (1986)
noted the importance of the participant modelling process.
Such a process was thought to be driven by the would-be
offender modelling specific sexual abuse skills of his
perpetrator model - skills which are later replicated in his
own offences. Howells (1981) conceived the modeling
component as providing the victims of abusers with dramatic
models for coping with stress which in later years occasion
well learned patterns of sexual actions in the face of
conflict. Thus, a participant modelling approach stresses
that it is not so much the conditioning aspect of being
abused that is so important but more so of having a model
who exhibits sexually abusive behaviour (Finkelhor, 1984).

Vicarious modeling refers to the learning of behaviours
through non-participant observation. Indeed, Bandura (1969)
has argued that vitually all behaviour learned through
direct exposure can also be learned through observation.
With regard to replication of CSA, vicarious learning would
make it possible also for the reenactment of indirect CSA
experiences observed happening to others, either in
actuality or through the media. This mechanism of learning
is one of the reasons why many see it important for such
vicarious experiences (such as witnessing CSA happening to
others or observing child pornography) to be included as
part of the definitional criteria for CSA (Finkelhor, 1979;
1984; Fromuth, 1983; Wyatt, 1985; Burnam, 1985).

Symbolic modeling refers to the process of development
and elaboration of behaviour and its consequences through
thought or mental imagery (Laws & Marshall, 1990). Hitherto,
the mediating influence of cognitive factors on a victim's
response to CSA appears to be a largely untapped area of
research. Freeman-Longo (1986) believed that participant and
vicarious modeling processes may be modulated by symbolic
modeling. In particular a subject's misattributions about
his own victimization, such as it being an innocuous or even
a pleasurable experience, may play an influencial role in
the conditioning of sexual arousal toward children. The
labeling of the self as sexually deviant may increase the
likelihood of replication of own abuse (Laws & Marshall,
1990). Howells (1981) has presented a similar thesis
centering around the idea of misattribution of sexual
arousal. He argues that this may occur because the initial
stages of the sexual response cycle are physiologically

indistinct from patterns of arousal produced by other emotions. Thus, how one labels this arousal will have a strong influence upon whether or not sexual excitement is elicited and later sexual behaviour occasioned (Howells, 1981).

1-6-2 Psychoanalytic Theories.

Psychoanalytic thought has viewed the replication phenomenon to be driven by emotional intrapsychic forces rather than classical conditioning, operant or social learning influences.

1-6-2-1 Repetition-Compulsion.

The central tenant of psychoanalytic explanations of CSA replication is the concept of repetition-compulsion. This idea arose out of early psychodynamic trauma theory (c.f., Breuer & Freud, 1954), which predicted the repetition of some aspect of a traumatic experience to be a function of the regulation of self esteem.

Probably the most widely accepted contemporary development of early Freudian trauma theory, has been Horowitz's (1976) writing on the general repetition-compulsion trauma reaction.

Horowitz (1976) stated:

"This involuntary repetition includes the recurrence of

thoughts and especially images about the stress event,

of feelings related to the original experience, and of

behavioural reenactments of parts of the experience

itself....The trauma may be symbolically repeated over

and over again". (pp15-16)

The writings of Stoller (1975) conceived the
development of sexual perversion to be driven by a similar
repetition-compulsion process. Stoller saw this process to
be fundamentally an act of symbollic mastery over childhood
psychological trauma that threatens the development of the
victim's masculinity or femininity:

"My hypothesis is that a perversion is the reliving of

actual historical sexual trauma...and that in the

perverse act the past is rubbed out. This time trauma

is turned into pleasure, orgasm, victory." (Stoller,

1975. p6).

Groth, Hobson, and Gary (1982) and Howells (1981)
related the symbolic mastery dynamic to CSA:

"One way in which the male child may try to combat the

feelings of powerless inherent in being a victim is to

ultimately identify with the aggressor and reverse

roles; that is, to become the powerful victimizer

rather than the helpless victim. The child molester

then reenacts in his offence the characteristics of

his own victimization in an attempt to restore to

himself a feeling of being in control." (Groth,

Hobson, & Gary, 1982, p.138)

Seghorn, Prentky, and Boucher (1987) further speculated

about the cyclical nature of sexual abuse in the more

"classic" pedophiles who demonstrate some closeness to their

victims, and appear not to master their trauama in a

Stollerian manner of gross exploitation of the child victim.

They postulated that a child who is sexualized by an adult

in the context of a nurturant relationship, comes to

identify closeness with adult-child sexual activity,

internalizes this as an ego-syntonic part of the self and

perpetuates it as an adult in a pattern of self-justified

victimization of other at-risk children. This theory of

Seghorn, et al., (1987), however, is not strongly dependent

upon psycho-analytic concepts and could be incorporated

within other theoretical approaches.

1-6-3 Similarities and Differences Between Theoretical

      Predictions.

Whilst behavioural and psychodynamic concepts differ

considerably in the purported mechanisms by which the

replication phenomenon is conceived to be driven,

interestingly both theoretical schools similarly predict

some basic behavioural outcomes.

Firstly, and most central, both schools predict some

degree of replication of some or all aspects of a CSA

history. The occurence of replication, however, is contingent upon a number of necessary preconditions.

Psychoanalytic theorists have emphasised the necessary precondition of the CSA being a traumatic experience. CSA experiences which are emotionally upsetting, in particular, would tend to be those most likely replicated. Moreover, replication would tend to exhibit itself in the form of reenactment of discrete abusive relationship(s) from childhood whereby the victim assumes the specific role(s) of his historical victimizer(s) and acts out those particular abusive experiences.

Behavioural models, in particular social learning theorists, also predict replication (through modelling processes) of discrete abusive episodes or relationships. Social learning theorists would predict that the more influencial the modelling experience, i.e. the more frequent the exposure, the closer the model to the victim and/or the greater the number of models, the stronger the modelling/replication effect is expected to be. In addition, classical conditioning models also predict a generalization effect, either through exposure to a series of real experiences or through characteristics of a discrete experience being elaborated on through fantasy rehearsal. This means that characteristics of CSA experiences, focused on most during fantasy and masturbation, ultimately become most reinforcing of congruent instrumental behaviours (i.e. replication). Generally, Pavlovian models predict that any abuse which is eventful for the victim (i.e. extremely pleasant or unpleasant) is most likely to facilitate

accurate recall of these historical characteristics and ultimately reinforce sexual behaviour of a similar kind.

1-7 EMPIRICAL EVIDENCE FOR CHILD SEXUAL ABUSE REPLICATION.

Research supporting to varying degrees CSA replication fall into four general categories: 1) Studies showing a high rate of child sexual abuse in incarcerated child molester populations; 2) Studies reporting a high rate of sexual acting-out in sexually abused children and adolescents; 3) Studies illustrating strong specificity for victim characteristics in incarcerated child sex offenders; and 4) Studies that retrospectively examined the replication phenomenon in offending populations.

1-7-1 Retrospective Evidence: Prevalence of CSA in Offender Populations.

Many studies have demonstrated that high proportions of adult child molesters report to have been the victims of early sexual contact with adults.

An early study by Gebhard, Gagnon, Pomeroy, and Christensen (1965) reported a higher rate of CSA among incarcerated adult child molesters, compared with controls. They found that male-object pedophiles (N=123) had the highest rate (33%) of sexual contacts with adult males as children. 10% of female-object pedophiles (N=199) had sexual contact as children with an adult female (compared with 1%

of the control group). Some 18% of the female-object group had sexual contact as children with an adult male (compared with 8% of controls).

Groth and Burgess (1979) found that in a group of 178 child molesters, 32% reported some form of sexual trauma in their childhood years (compared with only 3% of a comparison group of 64 police officers). Twice as many (46%) of the "fixated"-type (commonly male-object) offenders were victimized compared with the "regressed" (often female-object) offenders (23%). In an ongoing study of convicted child molesters, Groth and Freeman-Longo (1979) report up to 80% of their sample having been victims of CSA.

The observation that male-object offenders appear to have a far higher rate of abuse (presumedly by male perpetrators) than female-object offenders (Frisbie, 1969; Gebhard, et al., 1965; Groth & Burgess, 1979) has been interpreted by Howells (1981) as further, albeit indirect, evidence of replication.

Seghorn, Prentky, and Boucher (1987) found that 57% of child molesters (N=54) reported molestation in their background (significantly higher than the rapist sample (23%; N=97). Gaffney, Lurie, and Berlin (1984) found in an inpatient group of pedophiles (N=33) that almost twice as many (27%) were sexually abused in childhood, compared with controls of non-pedophilia paraphiliacs (14%). Pithers, Kashima, Cumming, and Beal (1988) noted an even greater divergence with 56% of pedophiles (N=135) reporting a history of CSA, compared with only 5% of rapists (N=64). Finally, among a group of intrafamilial offenders, Faller (1989) found that 40% (N=154) of male offenders were abused

as children.

Not surprisingly, the findings with adolescent offender populations complement what has been found in adult offender populations. Longo (1982) reported a 47% rate of prior sexual abuse in a sample within an adolescent sex offenders treatment programme, whilst Johnson (1988) reported a 49% rate of prior sexual abuse in her sample of male child perpetrators. Both Fehrenbach, Smith, Monastersky, and Deisher (1986) and Becker (1988) found 19% of 422 adolescents reported prior child sexual abuse. Finally, Smith and Israel (1987) found a 52% rate of prior CSA in a sample of adolescent sibling perpetrators.

While keeping in mind the disparate ways in which the aforementioned studies have gathered their data, the pooled prevalence of sexual victimization in these adult and adolesent offending samples comes to 36%. While such transposition of data is of dubious validity it does indicate a far higher rate of prior abuse in child sex offenders than in the general population.

1-7-2   Prospective Evidence: Sexual Acting-out in Sexually
        Abused Children and Adolescents.

A small number of studies have noted the development of sexual offending in sexually abused boys.

Friedrich, Beilke, and Uruisa (1988) found 13% of 31 boy victims had perpetrated sexual abuse by age eight. Sansonnet-Hayden, et al., (1987) found 3 out of 6 abused male adolescents later became abusers. Chasnoff, et al.,

(1986) found two out of three babies abused prior to the age of 18 months had begun before the age of three to sexually abuse other children.

In such populations (regrettably of small sample sizes) abused boys show rates of later offending behaviour which average about 22% (Watkins & Bentovin, 1990).

In addition to these studies, others have shown a significantly high rate of over-sexualization, eroticization or inapropriate sexual behaviour in sexually abused children. Definitions of "over-sexualized behaviour" commonly included a preoccupation with sexual matters, sexual acting out with inanimate objects or animals, compulsive masturbation and an atypical knowledge of sexual behaviour (Watkins & Bentovim, 1990). Studies comparing physically and sexually abused children have consistently found a significantly higher rate of sexually inappropriate behaviour in the latter samples. Kolko, Moser, and Weldy (1988) found when predicting type of abuse, 49% of the variance for sexually abused children was accounted for by the sexual behaviour variable, compared with 7% for the physically abused sample. Gale, Thompson, Moran, and Sack (1988) found that in a sample of under eight year old children, 41% of the sexually abused sample displayed inappropriate sexual behaviour, compared with less than 5% of the physically or non-abused sample.

Other studies comparing sexually abused children with clinical and general peers using standardized measures such as the Child Behaviour Checklist (CBCL), have also found similar differences. Friedrich (1988), in a comparison of sexually abused and conduct disorder boys on the CBCL, found

the former group significantly more sexualized and the latter group, not surprisingly, significantly more conduct disordered. Finally, Friedrich, Urquiza, and Beilke (1986) noted that 70% of abused boys scored at least one standard deviation above the general population norms of the sexual problems scale of the CBCL.

1-7-3 Specificity of Offending Behaviour.

Other research has noted the highly specific choice of victims by offenders repeated throughout perpetrators' offence histories. Such specificity in the choice of victim characteristics has been interpreted as indicative of specific underlying psychological dynamics, rather than being a result of environmental factors, such as availability of victims (Groth & Birnbaum, 1978). Sexual abuse in childhood has, thus, been hypothesised as one of the likely developmental causes of this psychological phenomenon.

Frisbie (1969) found only 5% of a sample of 887 offenders to be "ambisexual" in their choice of victims. Fitch (1962) found 18% of a sample with more than one offence had convictions involving contact with victims of both genders. Groth and Birnbaum (1978) also found in a sample of 175 offenders that only 18% were non-secific in the gender choice of their victims.

With regard to sexual act, Groth and Birnbaum (1978) found that only 13% engaged in both sexual play and sexual penetration with their victims. Groth and Burgess (1979)

also observed in their sample of 178 child molesters,
specificity with regard to type of act (only 13% engaged in
both fondling and penetration activities). Furthermore,
Groth and Burgess (1979) observed specificity with regard to
victim age (only 7% selected victims from more than one age
bracket: <5; 6-11; and 12-15 years).

1-7-4 Direct Evidence of CSA Replication.

Two studies have retrospectively examined more directly
CSA replication in the offence histories of child abusers.

Whilst no empirical evidence was presented, Groth and
Burgess (1979) observed in their sample of abused abusers
(32% of 178 child molesters) that the offences of the child
molesters appeared to be duplicates of the subjects' own
victimization. They reported this link to be especially
strong with regard to replication of age of the victim and
type of act performed.

The only other direct reference to CSA replication is
the Burgess, Hazelwood, Rokous, Hartman, and Burgess (1988)
study. Whilst their sample comprised 41 serial rapists, they
found that 76% were sexually abused as children. Moreover,
of greater interest, 52% of subjects retrospectively
reported sexual experiences which fulfilled the criteria for
reenactment of earlier sexual experiences. Such reenactment
commonly ocurred in pre-adolesecence against younger
victims. Evidence of reenactment was obtained from interview
data of their earliest sexual abuse experience and their
first self-initiated sexual experience. Reenactment was

affirmed if there "was a behavioural match or a clear symbolic reference to the abuse."(p.282)

1-7-5 Summary of Evidence.

Based on the above evidence, what can one conclude about the validity of CSA replication?

Retrospective designs indicate that an abnormal number of child molesters are the subjects of sexual victimization as children, compared with non-clinical, paraphiliac and rapist controls. Whilst, it certainly seems that sexual victimization as a child has some aetiological significance, more so than for rapists or other paraphiliacs, such studies do not indicate whether replication of childhood experiences is occuring. Moreover, to argue that a higher rate of CSA in the histories of male-object offenders is evidence of repliction is dubious for a number of reasons. Firstly, to argue, based on apparent replication of gender, that all other characteristics of the experience are replicated is simply speculative inference. Moreover, the evidence supporting the replication of gender alone appears tenuous. This is because it is based on the assumption that the offenders against these men were all males. The assumption that specificity of choice of victim by offenders is indicative of formative childhood sexual abuse experiences must be viewed also as speculative evidence of replication.

Similarly, no prospective designs appear to have directly measured the replication phenomenon among child or juvenile offenders. Again, similar to adult abuser samples,

it appears that sexual victimization as a child has some aetiological significance, but as yet there is no evidence about whether or not replication of CSA is indicated in these samples.

Interestingly, prospective designs indicate lower prevalence rates than retrospective designs. This may partly be due to the age ceilings limiting the occurence of offending behaviour to within childhood and early adolescent years. However, much of the disparity is most likely due to prospective designs examining longitudinally the aetiological relationship (the probabilty that victims will become offenders) as opposed to merely the abused-abuser relationship (the probability that offenders were once victims). The former examines CSA as a necessary factor in the development of abusing behaviour, whilst the later design looks at CSA as an important, but not necessary, factor in the development of the same.

Whilst the significance of the higher rates of over-sexualization in abused children is less clear (and certainly not evidence of child perpetration, least of all CSA replication), it does indicate that abused children are more likely to sexually act-out generally. This may place them at greater risk of developing deviant sexual behaviours (either through eroticisation or modelling of their own victimization experiences) similar to those they experienced as victims. However, this is a purely speculative hypothesis in need of much research attention at this stage.

The two studies that have looked directly at the replication phenomenon have done so in a somewhat

unscientific manner. The Groth and Burgess (1979) study merely alluded to their observation as a point of discussion. The Burgess, et al., (1988) study, while clearly endeavouring to examine CSA replication, failed to adequately specify the methodological and empirical basis suppporting their conclusions. The method by which they matched CSA and offence characteristics, appears to the author to be unsystematic, open to subjective interpretation and confirmation biases.

Thus, to conclude, there appears to be a dearth of research that has directly and scientifically examined the existence and nature of CSA replication.

1-8 THE CURRENT STUDY.

What is the best way to study CSA replication in males? Probably, the ideal way in which to systematically and comprehensively study CSA replication is by means of a longitudinal, multivariate research design. This would allow the characteristics of CSA to be more objectively recorded, avoiding difficulties associated with the retrospective gathering of information in offending populations. Moreover, a prospective design is more amenable to multivariate analysis. The effect of developmental influences could be systematically measured across different ages, and subjects could be categorized as such with appropriate control groups included.

Problems in achieving this would include the research time involved plotting subjects throughout childhood,

adolescence and adulthood. Moreover, in order to explore the causal influences of all possible factors and factor inter-relationships, one would require an inordinately large population sample. However, the principal reason that appears to render such a design unworkable is an ethical quandary: in order to validly measure CSA replication, one would have to deny therapy to a sample of abused children and later offending adults. This would not only mean a denial of essential care but also would necessitate the victimization of others in order to properly study the replication effect.

Therefore, given ethical, time and population constraints, a retrospective design was undertaken for the current study.

The methodology of the current study began with the knowledge that all necessary preconditions of child sexual offending behaviour were present, through using an incarcerated sample of men who were known to have already sexually abused children. This allowed for measurements of replication of CSA to be directly undertaken in the sample who reported sexual victimization in their childhood years.

No rigorous attempt was aimed at either refuting or supporting any of the specific replication theories. On the contrary, the research design was carefully constructed to be as "theoretically amenable" as possible: to look at the fundamental predictions common to both psychoanalytic and behavioural theories. Obviously, testing the existence of replication is a necessary precursor to more detailed examination of theoretical differences in the predictions of CSA replication.

1-8-1 Hypotheses to be Investigated in the Current Study.

The following hypotheses were constructed to investigate certain aspects of child sexual abuse replication.

1) The first question of interest was whether or not the first CSA experience is simpley replicated in the subject's first offence.

HYPOTHESIS 1: That one, some or all of the following characteristics of the subjects' first CSA experience will be simpley replicated in his first offence.

Hypothesis 1 is expressed in the following flow diagram.

	FIRST VICTIMIZATION	--->		FIRST OFFENCE
i)	Subject's age	--->	a)	Age of first victim
ii)	Gender of perpetrator	--->	b)	Gender of first victim
iii)	Level of familial relationship with perpetrator	--->	c)	Level of familial relationship with victim
iv)	Level of force	--->	d)	Level of force
v)	Level of intrusive sexual act	--->	e)	Level of intrusive sexual act

2) The second research question was to investigate whether or not the most recent CSA experience to the offender's first offence is simply replicated in his first offence.

HYPOTHESIS 2: That one, some or all of the following characteristics of the subject's last CSA experience will be simply replicated in his first offence.

This is expressed in the following flow diagram.

LAST VICTIMIZATION	--->	FIRST OFFENCE
i) Subject's age	--->	a) Age of victim
ii) Gender of perpetrator	--->	b) Gender of victim
iii) Level of familial		c) Level of familial
relationship with	--->	relationship with
perpetrator		victim
iv) Level of force	--->	d) Level of force
v) Level of intrusive		e) Level of intrusive
sexual act	--->	sexual act

Thirdly, the current research aimed to investigate whether or not a generalisation of CSA experiences is simply replicated in the offender's first offence.

HYPOTHESIS 3: That one, some or all of the following characteristics averaged over the subject's CSA history will be simply replicated in his first offence.

This is expressed in the following flow diagram.

MEAN VICTIMISATION	--->	FIRST OFFENCE
i) Subject's mean age	--->	a) Age of victim
ii) Proportion perpetrators		
who are male	--->	b) Gender of victim
iii) Mean level of familial		c) Level of familial
relationship with	--->	relationship with
perpetrators		victim

iv) Mean level of force   ---->   d) Level of force

 v) Mean level of intrusive   e) Level of intrusive

   sexual act   ---->   sexual act

The fourth research question was to investigate whether or not the replication phenomenon is stronger for the CSA experiences associated with a high degree of positive physical arousal.

HYPOTHESIS 4: That for first (a), last (b) or all (c) CSA the replication of any one, some or all characteristic(s) is stronger for CSA experiences associated with pleasant physical arousal.

Question five sought to answer whether or not the replication effect is stronger for CSA experiences associated with a high degree of negative physical arousal.

HYPOTHESIS 5: That for first (a), last (b) or all (c) CSA the replication of any one, some or all characteristic(s) is stronger for CSA experiences associated with painful physical arousal.

The sixth question sought to investigate whether or not the replication effect is stronger for CSA experiences associated with a high degree of positive emotional arousal.

HYPOTHESIS 6: That for first (a), last (b) or all (c) CSA the replication of any one, some or all characteristic(s) is stronger for CSA experiences associated with happy emotions.

Finally, the current study sought to investigate whether or not replication is stronger for CSA experiences associated with a high degree of negative emotioal arousal.

HYPOTHESIS 7: That for first (a), last (b) or all (c) CSA the replication of any one, some or all characteristic(s) is stronger for CSA experiences associated with upsetting emotions.

Chapter 2

METHOD

2-1   SUBJECT SELECTION.

        All subjects approached for the study were inmates
At Kia Marama Sex Offenders Treatment Unit. Kia Marama is a
medium security treatment unit exclusively for men convicted
of sexual offences against children. The Unit is based at
Rolleston Prison, Christchurch, and has a catchment area
covering the whole of New Zealand.

2-1-1   Kia Marama Entry Criteria.

    a) The inmate has committed one or more sexual offence

        against children or young persons under 16 years

        of age (e.g., indecent assault, sexual violation,

        incest).

    b) The inmate is informed about treatment and consents to

        enter treatment. Persons exhibiting varying degrees of

        denial are not excluded.

    c) The inmate's sentence is long enough so that he can

        complete the 32 week programme before his earliest

        possible release date.

    d) The inmate has sufficient intellectual ability to

        comprehend and participate in the treatment programme.

        Literacy is not a requirement.

e) The inmate is free of any major psychosis.

f) The security classification of the inmate is medium or minimum.

2-2 RESEARCHER.

All testing was carried out by the author, a 23 year old, male, post-graduate, clinical psychology student. He was introduced to subjects by the group therapists as a psychologist from the University.

2-3 SETTING.

All testing was conducted in one of the two interview rooms in the therapy unit. The rooms were similar in size and lay-out; each had a window, desk and two chairs. All testing was conducted between 8.30 am and 4.30 pm.

2-4 MEASURES.

2-4-1 Russell-adapted Child Sexual Abuse History Questionnaire.

This instrument is an adaptation of Russell's (1983) interview schedule which was designed to elicit memories of CSA in adult women. It comprised 24 questions; four

questions from Russell's original version, ten questions adapted from the Russell version, and ten entirely new questions.

The adapted and additional questions were designed to more comprehensively cue a wider array of experiences encompassed by the current study's definition of CSA (see section 2.5.1). These changes included:

1) Changing the age ceiling from 14 to 15 years.

2) All experiences where the subject had sexual experiences with a person older than 5 years, regardless of whether or not the subject rated the experience as abusive.

3) All experiences where the subject had sexual experiences with a person older than 5 years, regardless of who initiated the encounter.

4) A wider array of abusive acts, such as oral-genital contact and the witnessing of pornography and upsetting sexual episodes between other people.

(See Appendix 1 for the Russell-adapted Questionnaire).

2-4-2 Ratings of the Physical and Emotional Experience of CSA Episodes.

These scales were designed for the current study. They consisted of two Likert-type scales with a range of seven and a neutral point of four.

The first scale (child pain-pleasure continuum) is a
retrospective rating of the physical quality of the first
and last abuse episodes of each abusive relationship. The
second scale (child upset-happy continuum) is also a
retrospective rating of the emotional state of the subject
during the same abusive episodes.

2-4-2-1 Development of Scales.

The scale descriptors were carefully chosen to fulfill
a number of criteria as highlighted by Gough (1960). Gough
recommended that descriptive terms in rating scales need to
be: 1) immediately meaningful; 2) sufficiently complex in
scope; and 3) susceptible to systematic analysis.

Due to a large disparity in the reading abilities of
the inmates, the need for the rating scales to fulfill the
first of Gough's criteria was paramount. All words (i.e.
upset, happy, pain and pleasant) were chosen from a word
list comprising 3,200 of the most commonly used words by New
Zealand primary school children (Croft, 1983). Fulfillment
of the second criteria (adequate scope) requires the
adjectives to be able to subsume a number of different
experiences within the single parent concept. Roget's
Thesaurus (1933) was used to select adjectives
representative of the broad constructs of positive and
negative emotional and physical experience.

Thus, "emotionally upset" was chosen to convey as many of the common negative or traumatic emotional experiences (fear, anxiety, embarrasment, anger, sadness etc) elicited by the child sexual abuse experiences. Similarly, " happy" was chosen to connote all positive emotional responses to the same events. "Physically pleasant" was chosen to account for positive physical experiences associated with abuse; "physically painful" was the descriptor at the opposite end of the same continuum, describing all the negative physical concequences of the abuse.

A potential problem lay in the equating or standardization of inter-subject reponses. To circumvent this problem, concrete reference points were anchored to points two and six of the numeric scales. These reference points represented examples of situations judged to engender similar near-to-extreme intensities of the positive or negative emotional or physical states in question. For instance, the childhood emotion scale was anchored with the examples: " [felt happy]...like going to a friend's birthday party" and "[felt upset]...like being lost in a crowd for the first time on my own". Other concrete examples were similarly chosen for the childhood physical scale.

Descriptions of experiences specific to childhood also aided in helping subjects delineate between current and retrospective emotional states. The criteria used for choosing the anchor examples were situations judged to be common to the life experience and/or the immediate subjective experience of the subject population.

(See Appendices 2, & 3 for the Likert-type scales).

2-4-3 Sexual Offence Questionnaire.

This instrument is an adaptation of the Clarke Sexual History Questionnaire (SHQ) for males (Paitich, Langevin, Freeman, Mann, & Handy, 1977). The SHQ is a 225 item inventory designed to assess a wide range of sexually anomalous behaviours, erotic preferences and the sexual dysfunctions (Conte, 1986).

Item development of the Clarke SHQ was based on sex offenders and sexually anomalous persons over a ten year period. Thus, the questionnaire is of particular use in the assessment of deviant sexual behaviours in males.

Psychometric properties of the Clarke SHQ include adequate internal consistency within scales, however, discrimination between the various scales is weak. In one study only 20 to 30% of subjects (psychiatric sexual offenders; N=452) were assigned to the correct group (Conte, 1983).

However, of most relevance to the present study is that the scales of the Clarke SHQ have been found to be unrelated to age, education, intelligence, defensiveness and social desirability variables (Conte, 1983). This is important to the current study, given the likely variability of these factors in the present sample.

2-4-3-1 Reasons for the Clarke SHQ Adaptation.

The Clarke SHQ, being a very lengthy and inclusive sexual history questionnaire, was unsuitable in its full

version for the current study's purposes. However, items of the pedophilia sections (B, C, E & F) of the Clarke SHQ were useful.

The current adaptation comprises 20 questions. As in the Clarke SHQ, distinction was made between offences against pre-pubertal children (12 years and younger) and pubertal children (13-15 years) of both genders. Eight questions (numbers 21, 44, 80, 93, 41, 64, 92 & 105) were chosen directly from the Clarke SHQ, with minor changes in wording added. These eight questions constitute numbers 1, 3, 8, 11, 14, 16 & 19 of the current Sexual Offence scale. The changes in wording constituted an altering of the minimum age of the offenders from 16 or 21 (depending upon the age of the victim) to the 5-or-more year victim-perpetrator age difference (regardless of the age of the offender). This change was chosen in accordance with the current study's definition of child sexual offence (see section 2.5.2). This change in the age criterion enabled information to be gained about the full childhood and adolescent offence history of each subject.

Four additional questions in the adapted version (numbers 4, 9, 13, 18) were based on similar questions in the Clarke SHQ (numbers 41, 64, 92 & 105), the only difference being in the stated gender of the victims.

Two entirely new questions were added to each of the four age-gender categories of the current Sexual Offence Questionnaire (numbers 2, 5, 7, 10, 12, 15, 17 & 20) to gain information about victim-perpetrator relationship status and the age of each perpetrator in his first offence.

(See appendix 4 for the Sexual Offence Questionnaire).

2-4-4 Semi-Structured Questionnaire for First Child Sex Offence.

In addition to the general information gained in the Sexual Offence Questionnaire, a short semi-structured interview questionnaire was developed to sample more specific information about each subject's first offence relationship. Variables of interest were the age of the victim, the type of acts performed, the degree of force used, the subject-victim relationship, and the number of abuse episodes within the relationship.

(See appendix 5 for a copy of the First Offence Semi-structured Interview Questionnaire).

2-5 OPERATIONAL DEFINITIONS.

2-5-1 Child Sexual Abuse.

Child sexual abuse was defined as:

1) A victim being exposed to a sexually abusive act with a person 5 years or older (see section 2.5.3 for definition of acts).

Or

2) Where the victim, being exposed to a sexually abusive act by a person less than 5 years his

senior, construes the experience as a victim: did not give full consent, felt coerced into complying or was upset or distressed by the event.

2-5-2 Child Sexual Offending.

A Child Sex Offence was defined as:

Subjecting a child or young person under the age of 16, and five or more years younger than the offender, to a sexually abusive act.

2-5-3 Sexually Abusive Acts.

Type of sexual act was defined by degree of intrusivity. Non-contact abuse was placed at one extreme. This included requests by another to perform a sexual act, witnessing upsetting sexual activities, pornography, sexually motivated exposition of either victim or perpetrator to the other, and auto-erotic acts such as the victim or perpetrator masturbating in the company of the other.

The next category contained manual or oral contact of non-genital body parts (sexually motivated touch of any body area aside from genitals, breasts, or rectum). Sexually motivated manual and/or oral fondling of genital body parts (including breasts and rectum) constituted the third category. The fourth category was superficial genital-

genital contact (where the penis did not enter inside the other's rectum or vagina). This category included genital-genital frotting and attempted intercourse. Full intercourse constituted the other extreme of the continuum.

All actions within each of the five categories were equated as similarly intrusive, regardless of whether the victim or the perpetrator was performing the actions.

(See appendix 6 for category list of sexually abusive acts).

2-5-4 Force Associated with Abuse.

Force was defined as the degree of control the perpetrator had over the victim. Violence, or threat of violence, was placed at one extreme. Non-violent forms of coercion (use of authority; use, or threat or promise, of punishment or rewards; other non-tangible forms of inducement) constituted the middle category, whilst victim invitation or full "consent" lay at the other extreme.

(See Appendix 7 for list of Force categories.)

2-5-5 Relationship of Victim with Abuser.

The victim-perpetrator relationship was rated using a 3 point scale of closeness of familial relationship. The three categories consisted of: 1) Nuclear family figures (parents

and siblings) at one extreme - this category being
synonymous with the legal definition of incestual partners;
2) Extended family members (grandparents, cousins, uncle,
aunts, sibling-in-laws) constituted the second category; and
3) Non-familial figures (authority figures, friends,
acquaintances and strangers) were grouped in the third
category.

2-6 PROCEDURE.

2-6-1 Initiation of Subjects.

Ethical approval for the study was gained from the
Justice Department and the Department of Psychology,
University of Canterbury. Following approval, the Justice
Department was approached to gain access to the population
of incarcerated child sex offenders currently undergoing
treatment at the Kia Marama Sex Offenders Treatment Unit at
Rolleston Prison.

A staff meeting was held at Kia Marama to elicit the
support and co-operation of the therapy team. The research
proposal was outlined to the therapists and they were
forewarned of emotional disturbance in the inmates being a
possible sequelae of the interview process.

The inmates were initially addressed as members of
their respective therapy groups. Subjects were initially
approached in groups in order to promote open discussion
about any issues they were concerned about regarding
participation in the study. It was hoped that an informed

"open forum" discussion in the presence of the researcher would aid in quashing at an early stage any misconceptions potential subjects may have had about the research. It was also hoped that this discussion would occasion a greater level of individual motivation to participate as a result of a positive group decision-making process.

During these group meetings inmates were made aware that involvement in the study was voluntary and that the decision to participate would not influence their prision term or treatment whilst in prison. Group members were introduced to the general nature of the scale items and interview material. They were informed that the type of information required would be similar in nature to that which the majority of them had already divulged in their therapy groups.

During the group discussions, highlight was made of the independent nature of the research and the anonymity of the data collection process. Inmates were informed that all imparted information was to be coded numerically with a separate identification number for each subject being kept independent from Justice department records and personnel. Assurance of confidentiality was further highlighted by stating that the collected data would only be released to the Justice department or to the public in a form expressive of general effects rather than of individual patterns.

Subjects were seen individually outside of their therapy time so as not to interrupt the group therapeutic process. This also enabled each person's decision regarding participation in the study to remain a private one if he so

wished. Once subjects agreed to participate they were asked
to sign an Informed Consent form at the commencement of the
first of the two interview sessions.

(See Appendix 8 for copy of Informed Consent Form).

2-6-2 Concurrent Therapy Programme.

During the time of individual subject interviews (May -
June, 1990) Kia Marama comprised five therapy groups, with
about nine subjects per group. During this time three
groups (27 subjects) were nearing the end of the 4 week
Cognitive Restructuring module of the programme and
beginning the victim empathy module. Both these modules
followed an initial 4 week assessment phase comprising
individual interviews and the administration of
psychological scales and questionnaires. The two remaining
groups (19 subjects) were at a more advanced stage in the
programme, completing problem solving and stress management
modules at the time of data collection. In addition to the
modules completed by the former three groups, the latter
two groups had also completed a module concerned with
interpersonal and relationship skills.

That subjects had completed the assessment module and
largely completed the cognitive restructuring component of
the programme was considered important to the study. The
influence of these modules was predicted to have a positive
effect on data quality. Through these modules, subjects were
exposed to much questioning about their offences and

childhood experiences. They were also required to address their own cognitive distortions and/or denial of their offending behaviour. Thus, it was hoped that following completion of the Cognitive Restructuring therapy component, the subjects would be more receptive to being questioned about their own offending and childhood victimization experiences, and less likely to misrepresent information about their offences.

(See appendix 9 for summary of the individual modules of the Kia Marama treatment programme).

2-6-3 Interview One.

The first interview comprised two parts. The first half used the semi-structured sexual abuse history questionnaire to gain information about the subjects' childhood sexual abuse experiences. The second half of the first interview session utilized the two Likert-type scales rating the physical and emotional impact of their abusive experiences.

The first interview lasted, on average, about two hours. The session concluded only when subjects were comfortable with the disclosure process and how the information gained was going to be used.

2-6-3-1 Interview One: Part A.

The interview began with the gathering of information about the age of each subject's first childhood memory.

Being a fairly innocuous question, this first probe served
as a useful means of establishing rapport during the initial
stages of the interview. Enquiry into each abusive
relationship began with "yes-no" answers in response to
the semi-structured interview questions. "Yes" responses
were followed by more specific questions designed to gather
information about specific aspects of the abuse.

Incidents of abuse were defined by the identity of the
perpetrator. Information about each abusive relationship
included the nature of the sexual contact, the age of the
subject, the number of episodes, the degree of force used,
the sex and age of the perpetrator and his or her
relationship with the subject victim.

2-6-3-2 Interview One: Part B.

For each abusive relationship subjects were asked to
fill in the two likert-type scales for each abusive
relationship.

For each scale subjects were read aloud the
instructions whilst they read their own copy. They were
instructed to place a circle around the number that showed
the degree to which they found as a child the first and last
abusive experiences in each relationship 1) physically
painful or pleasant, and 2) emotionally upsetting or
happy.

For subjects who experienced more than one abusive
episode per abusive relationship, the first and last abuse
episodes were rated on these scales.

2-6-4 Interview Two.

The second interview comprised two parts. The first half used a structured interview format to gain some general information about the subjects' offending behaviour. The second part used a semi-structured interview format to gain more specific information about characteristics of the subjects' first offence.

2-6-4-1 Interview Two: Part A.

Prior to the answering of questions from the sexual Offence Questionnaire, the term "sexual contact" was defined for each subject by reading through a list of sexually abusive acts with him. This list was the same as that used to rate the intrusivity of the acts of the subjects' own sexual victimization experiences. Once subjects were familiar with this definition, they were read the questions from the Sexual Offence Questionnaire. Information collected from each subject comprised their number of victims, number of offence episodes, their relationship with their victim(s) and their own age at time of first offence. This data was collected for all four victim categories: male and female children less than 12 years old and 13-15 years old.

2-6-4-2 Interview Two: Part B.

The second half of the second interview session utilized the semi-structured interview format to gain more

specific information about the characteristics of each subjects' first sexual offence against a child. Information sought included sex and age of the victim, the type of sexual act carried out, degree of force used by the perpetrator, and the subject-victim relationship.

The second interview lasted, on average, about one hour. Again, the session was only concluded when subjects were comfortable with the disclosure process and how that information was going to be used.

2-6-5 Validity Checks.

Clearly, a large source of potential error is the degree of accuracy of information gained from the subjects' recall, particularly of childhood events. In order to minimize as much error as possible, close attention was paid to the following interview techniques that were used to obtain more accurate responses.

2-6-5-1 Validity of Estimates of Abuse Episodes.

The number of abusive episodes for each victim-perpetrator relationship was estimated by determining the frequency of encounters over the smallest meaningful unit of time. The frequency of episodes per time unit was multiplied

by the number of time units over which the abuse was estimated to have occured. This number was used as an estimate of the number of abusive encounters.

To overcome the problems of estimation across a number of episodes, where appropriate, information was gathered using specific incidence-based criteria, as opposed to more generalized relationship-based data. This was achieved in the collection of retrospective emotional and physical ratings of the subject's own abuse as well as the information on the characteristics of the subject's first offence relationship.

2-6-5-2 Validity of Age Estimates.

To further increase validity of estimates of age of abuse, subjects were encouraged to recall abuse episodes in relation to other events immediately prior, or subsequent, to the abuse. Common events recalled were birthdays, class in school, place of dwelling and holiday activities. In cases where the subject had a continuing relationship into adulthood with his perpetrator, the age of the other person was estimated using current knowledge of that person's age and their own age when the abuse occured.

2-6-5-3 Validity of Abuse Acts.

Nature of the sexual act was determined by using specific questioning. Subjects were initially asked an open-

ended question: "What did [the perpetrator] do to you" or "What did you do to [the victim]?" In the latter question regarding the degree of intrusivity of the subjects' offence act, specific questions were directed at establishing whether or not more intrusive acts had occured. For instance, if the subject described a scenario whereby he rubbed his penis against his victim's rectum, the subject would then be asked if he placed his penis inside the child's rectum.

2-6-5-4 Validity of Abuse Force.

Degree of force used by the perpetrtor was ascertained by getting the subject to answer the open-ended question: "How did [the perpetrator] get you to go along with [his or her actions]?" or "How did you get [the victim] to go along with this sexual contact?" Descriptions were gained of the type of victim engagement strategy used by the perpetrator. Again, subjects were encouraged to be as specfic as possible. Based on the subject descriptions, responses were coded by the researcher in one of the 8 Force categories.

For each abusive relationship, information about the sexual act and degree of force was usually sought last of all, because subjects tended to find this information the most difficult to divulge.

2-6-5-5 Data Coding.

The broad categories within which information was coded, aimed to provide some room for distortion of memory content to occur without greatly compromising the quality of the data. The information gathered from each subject was coded whilst the subject was present so as to further assure anonymity of imparted information. This system also allowed for further questioning of the subject if it became apparent that more information was needed.

The very private nature of imparted information, and the vunerability of subject compliance, (already based upon stringent confidentiality assurance), made it impracticable for inter-rater reliabilty tests to be carried out.

(See appendix 10 for copy of interview code form).

Chapter 3

RESULTS

3-1 SAMPLE

Some 45 of the 46 male inmates agreed to participate in the study (Mean Age = 40.0 years; Range = 19 to 67 years). Some 39 were of Caucasian origin and 6 of Maori descent.

3-2 DESCRIPTIVE STATISTICS

The descriptive data gathered by means of the Child Sexual Abuse Questionnaire and the Sexual Offence Questionnaire are presented in three sections.

The data relating to the sample's childhood sexual abuse experiences are presented, followed by the descriptive characteristics of the sample's male and female perpetrators, as reported by the sample victims themselves. Finally, the sample's offending history will be summarised according to the gender, age and relationship status of each subject's victims.

3-2-1 Subjects' Childhood Sexual Abuse Experiences.

Table 1 presents data relating to the self-reported characteristics of the subjects' child sexual abuse experiences. These data are presented in a summarised form; see appendix 11 for the expanded form of these results. Note that data within Table 1 are based on the sample number of subjects sexually abused in childhood.

3-2-1-1 Prevalence.

Some 78% (N=35) of the sample reported experiences prior to age 16 that fulfilled the current study's criteria for child sexual abuse. This rate, therefore, includes contact and non-contact forms of abuse. When only contact abuse is accounted for, the prevalence rate drops slightly to 75.6%

3-2-1-2 Age of Onset.

The most frequent years of first abuse experience were between the ages of 5 and 9, the next most common ages being 3 to 5 and 13 to 15. The age range 11 to 13 was the least (valid) common age of first CSA episode. While the proportion of subjects reporting abuse between the ages 1 to 3 (2.9%) was lower than the 11 to 13 category (5.9%), the former figure (as well as the the 3 to 5 year figure) is likely to be underestimated. This is because the mean age of the subjects' first reported childhood memory was 4.6 years (SD 1.53).

3-2-1-3 Duration.

Some 71.7% of abused subjects were involved in abusive relationships which spanned more than one year. The mean duration of abuse was 3.9 years (the mean age of the last victimization experience was 12.1 years).

3-2-1-4 Number of Relationships.

About two thirds (67.6%) of those who were sexually abused in childhood were abused by more than one person. Some 37.5% of subjects were involved in five or more CSA

relationships. The mean number of abusive relationships experienced by the victimized sample was around two.

3-2-1-5 Number of Episodes.

Of those abused in childhood, more than two thirds (69%) experienced more than five CSA episodes. Slighly less than a quarter (24%) of the abused sample experienced more than 100 sexual abuse episodes before age 16, thus skewing the data considerably. The median number of abusive episodes was 12.

3-2-1-6 Gender of Perpetrators.

Some 88% of the abused sample were at some time in their childhood sexually abused by a male, whilst 59% of subjects were sexually abused by a female during childhood. However, very few of the subjects victimized by females were abused exclusively by a female perpetrator (11.8%). Some 41% were offended against exclusively by males. Note that the largest group were those who were abused both by male and female perpetrators (47% of the victimized sample).

3-2-1-7 Subject-Perpetrator Age Disparity.

Some 85% of the victimized sample were abused as children at some stage by a perpetrator who was their senior by five or more years. Around two thirds of the sample were victimized by peers (perpetrators less than five years older than themselves). Some 15% were abused exclusively by peers, whilst 68% were abused exclusively by age superiors.

TABLE 1. SUBJECTS' CHILD SEXUAL ABUSE EXPERIENCES
(N=35)

	Mean	Range
Age of First CSA	8.2	2-15
Length of CSA (in years)	4.0	1-12
Number of CSA Relationships	2.0	1-6
Number of CSA Episodes	398	1-4800

The most intrusive level of sexual act, and the most force associated with CSA, experienced by the subjects is presented in Table 2. The most intrusive sexual act experienced by subjects' was genital-genital contact. Over half of the abused group (56%) had either sexual intercourse (41%) or more superficial genital-genital contact (15%) with their perpetrator. The second most common most intrusive sexual act experienced by subjects was manual or oral-genital contact (38%). The most common most forceful CSA experience for the current sample constituted violence or threat of violence (53%). Only one subject reported no use of force or coercion by his perpetrator throughout his CSA history.

TABLE 2. MOST INTRUSIVE AMD MOST FORCEFUL CSA ACT
EXPERIENCED BY SUBJECTS

Abuse Level	Sample % (N=35)		Force Level
Non-contact	2.9%	2.9%	Full Consent
Manual/Oral Non-genital Touch	2.9%		
Manual/Oral-genital Touch	38.2%	44.1%	Non-violent Coercion
Genital-genital Touch	14.7%	52.9%	Use/Threat of physical Violence
Intercourse	41.2%		

3-2-2 Characteristics of Subjects' Perpetrators

Tables 3 to 5 present characteristics of the perpetrtaors of the abused sample as reported by the subjects. Descriptive data were gathered on 81 perpetrators: 54 males and 27 females. Table 3 presents the age distribution of the perpetrators. The age estimates of the adult perpetrators were collapsed into one category (16+), as subjects found difficulty estimating the age of these adult offenders with any useful degree of accuracy.

One third of the perpetrators of the abused sample were female, two thirds were male. The proportions of perpetrators in the three age categories are similiar across gender. Four fifths (80.2%) of the subjects' perpetrators were over the age of 15 years, 17% were age 13 - 15, and 3% of perpetrators were of pre-adolescent age (<13 years).

TABLE 3. AGE AND GENDER OF SUBJECTS' PERPETRATORS
(N=81)

Gender	Age		
	0 - 12	13 - 15	16+
Male	1.9%	18.5%	79.6%
Female	3.7%	14.8%	81.5%

Descriptive data on the relationship status of the perpetrators are presented in Table 4. Over half of the female offenders were parents or siblings of the subjects, compared with less than a fifth of male perpetrators. Conversely, male offenders were more commonly non-familial (57.4%) than female perpetrators (32%).

TABLE 4. RELATIONSHIP STATUS OF SUBJECTS' OFFENDERS

Relationship Status	Percentage of Male Offenders (N=54)	Percentage of Female Offenders (N=27)
INCEST	18.5	52.0
Biological Parent	13.0	20.0
Step-parent	–	8.0
Biological sibling	1.9	12.0
Step sibling	3.7	12.0
EXTENDED FAMILIAL	24.1	16.0
Grandparent	1.9	–
Sibling-in-law	3.7	4.0
Uncle/Aunt	13.0	4.0
Cousin	5.6	8.0
NON-FAMILIAL	57.4	32.0
Authority Figure	11.1	4.0
Friend	9.3	–
Aquaintance	24.1	28.0
Stranger	13.0	–

The types of acts and degree of force used by the male and female offenders are presented in Table 5. Sex Act is expressed as the most intrusive sexual act performed by the perpetrator aginst the particular subject. Similarly, Force is the most forceful strategy of subject engagement used by each perpetrator against his or her subject.

The relative proportions of male and female offenders within the various sex act categories were fairly similar, except that females were more likely to commit superficial genital-genital touch, whilst male offenders were more likely to perform manual-genital or oral-genital acts on their subjects.

With regard to the force used to commit offences, twice as many female (18.5%) than male (9.3%) perpetrators used "fully consentual" engagement strategies. Conversely, more males (44.4%) than females (29.6%) used or threatened physical violence on the subject victims.

TABLE 5. MOST INTRUSIVE AND MOST FORCEFUL CSA ACT
COMMITTED BY OFFENDERS AGAINST SUBJECTS

Percentage of Offenders (N=81)

Sex Act	Male	Female	Male	Female	Force
Non-contact	24.1	25.9	9.3	18.5	Full Consent
Manual/Oral Non-genital Touch	5.6	3.7			
Manual/Oral-genital Touch	46.3	33.3	46.3	51.9	Non-violent Coercion
Genital-genital Touch	1.9	18.5	44.4	29.6	Use/Threat of physical Violence
Intercourse	22.2	18.5			

3-2-3 Subjects' Offence History

Based on data gained from the Sexual Offence Questionnaire, subjects were classified into categories defined by the exclusivity of their victim choices. Each subject's offence history was tabulated in relation to three characteristics of victims: 1) Gender; 2) Age; and 3) the subject-victim relationship.

Subjects were classified as male-object, female-object or mixed according to choice of victim gender. Based on victim age, subjects were classed as either pre-pubertal-object (victims <13 years), pubertal-object (victims 13-15

years) or mixed. Finally, the relationship category was broken down into subjects who were exclusively incest offenders (own children or siblings as victims), extended familial offenders (other relatives), non-familial offenders, and mixed.

Table 6 presents the proportions of the subject sample classified as above, as well as the subject proportions in each category sexually abused as children.

The data showed that 75.5% of subjects offended within one of the exclusive age categories, 77.8% of subjects offended within one of the exclusive gender categories, whilst 68.8% of subjects offended within one of the exclusive relationship categories. The relative proportions of subjects within the object-exclusive versus mixed categories will have implications for the degree to which the first offence data can be extrapolated to predict a subject's entire offence history. The relatively high degree of offender object exclusivity appears not be simply a function of single victim offending, as 73.3% of the sample offended against more than one victim.

TABLE 6. SAMPLE CLASSIFIED BY OFFENCE HISTORY

Classification	Percentage of Sample (N=45)	Percentage of Sample Abused
Pre-pubertal Object	53.3	71
Pubertal-Object	22.2	70
Mixed	24.4	100
Male-object	17.8	100
Female-object	60.0	67
Mixed	22.2	90
Incest	33.3	87
Extended Familial	11.1	60
Non-Familial	24.4	64
Mixed	31.1	86

3-3 PREDICTORS OF FIRST OFFENCE DATA.

To test the hypotheses relating to replication of the sample's child sexual victimization experiences, four levels of statistical analysis were undertaken.

Firstly, matched variables relating to the sample's first, last and mean CSA experiences were correlated with matched variables relating to their first offence.

Secondly, Stepwise Multiple Regression Analysis (MRA) was undertaken to test the significance of matched CSA characteristics (i.e., the first, last & mean CSA

experiences, including subjects' emotional and physical ratings of the same) as predictors of matched first offence data.

Thirdly, Receiver-Operating Characteristics were used to analyse the predictive power (for the current sample) of the significant multiple regression equation.

Finally, further Stepwise MRA was undertaken to examine the ability of the significant PV set, established in the second level analysis, at predicting the super-ordinate criterion variable: Gender replication.

3-3-1 Data Preparation

Seven common independent variables were pooled from the experiences of the 34 subjects victimized as children:

1) Subject's age at victimization.

2) Gender of subject's perpetrator(s).

3) Subject's level of familial relationship with his perpetrator(s).

4) Level of intrusiveness of CSA acts.

5) Level of force associated with CSA.

6) Physical ratings of CSA experiences.

7) Emotional ratings of CSA experiences.

All variables with the exception of gender were expressed along continuous dimensions. All variables were expressed per abusive relationship rather than per abuse episode. For instance, the most intrusive act performed on that subject by his first perpetrator was coded as the level of intrusiveness of the first sexual act.

Data on the seven variables were obtained about the subjects' first victimization relationship, the last relationship (i.e., the relationship most recent to the subjects' first offence), and all relationships. This latter data set expressed variables as mean scores by a process of averaging data over all abusive relationships.

Finally, dependent variables relating to the sample's first offence were calculated and expressed in a form directly comparable to the variables relating to the subjects' CSA histories. The variables relating to the first offence were:

1) Age of subject's first victim.

2) Gender of subject's first victim.

3) Level of familial relationship with first victim.

4) Level of intrusiveness of first offence act.

5) Level of force associated with first offence act.

3-3-2 Correlation Analysis

The first part of the comparative analysis involved the use of Pearson Product Moment correlations to test the simple strength of association between the five variables relating to the subjects' own victimization experiences (i.e., subject age, relationship with perpetrator, gender of perpetrator, abuse act and force associated with the act) and the matched variables relating to their offending behaviour (i.e., age and gender of victim, relationship with victim, abuse act and force associated with the act.) These comparisons were expressed in three sets.

The first set of correlations involved the correlation

of variables relating to the subjects' first CSA experiences
with variables relating to their first child sexual offence.
Because of the categorical nature of the Gender variables,
the phi-coefficient of the Pearson Product Moment
correlation was used. The second set of correlations
involved the correlation of variables relating to subjects'
last CSA experiences with variables relating to their first
offence. Again, the phi-coefficient was used to test the
strength of association of gender variables. The third set
of correlations involved the correlation of variables
averaged over each subject's entire victimization history
with variables relating to their first offence. The Point
biserial variant of the simple Product Moment correlation
was used to compare the categorical and continuous variables
of gender. The results of these correlation analyses are
presented in Tables 7-9. As can be seen from the **bold**
Pearson-r values, none of the matched variables show any
significant strength of association.

TABLE 7. CORRELATION MATRIX OF FIRST CSA VARIABLES AND
          FIRST OFFENCE VARIABLES.

Where $r > .329$ is significant at the 0.05 level.
Where $r > .424$ is significant at the 0.01 level.

First CSA   First Offence

	Age	Gender	Act	Rel'ship	Force
Age	.02	.21	-.13	-.07	-.09
Gender	-.04	.23	-.05	.26	-.19
Act	.14	.03	.13	.11	.08
Rel'ship	.24	-.19	.05	.15	.05
Force	.10	-.26	-.14	.24	.30

TABLE 8. CORRELATION MATRIX OF LAST CSA VARIABLES AND
FIRST OFFENCE VARIABLES.

Where r>.329 is significant at the 0.05 level.
Where r>.424 is significant at the 0.01 level.

Last CSA	First Offence				
	Age	Gender	Act	Rel'ship	Force
Age	.07	.20	-.05	.26	-.04
Gender	.01	.29	-.05	.35	-.14
Act	-.42	-.19	.20	.39	.05
Rel'ship	.32	-.18	-.01	.03	-.12
Force	.14	-.22	.14	-.10	-.16

TABLE 9. CORRELATION MATRIX OF MEAN CSA VARIABLES AND
FIRST OFFENCE VARIABLES.

Where r>.329 is significant at the 0.05 level.
Where r>.424 is significant at the 0.01 level.

Mean CSA	First Offence				
	Age	Gender	Act	Rel'ship	Force
Age	-.30	-.02	.32	.08	.23
Gender	.27	-.29	.00	-.05	.17
Act	.32	-.13	.00	.36	-.02
Rel'ship	.26	-.10	.04	.14	.02
Force	.16	-.21	.06	.04	.11

3-3-3 Multiple Regression Analysis of Predictors of First
Offence Data

For the second level of analyses, Stepwise MRA was
chosen as the procedure of choice for a number of reasons.

Firstly, while simultaneous MRA is able to produce a single equation about the relationship between a set of PV's and a criterion, it is unable to extract information about the interrelationahip among variables, in particular how much extra variance is accounted for by the serial addition of PV's (Cohen & Cohen, 1983). Through sequentially entering PV's, however, Stepwise MRA is able to produce a cumulative R-square series. Such a procedure enables one to gain an idea of the relative additional contribution made by each PV when added to the PV's already added. Thus, one is able to identify the best subset of predictors from an original larger set (Cohen & Cohen, 1983).

A number of requirements and potential problems are associated with the use of Stepwise MRA. Firstly, the procedure requires the selection of PV's on an a priori basis guided by reference to either empirical data and/or theory. Thus, a major drawback with the procedure is the potential loss of meaningful causal relationships, in particular when PV's are selected without such empirical or epistemic guidance. The current study used PV's that were qualitatively matched to the criterion variable, so that only PV's meaningful in terms of the replication of the particular CV were used. Furthermore, it is important to note that Stepwise MRA defines the order of contribuition of PV's on an a posteriori basis, using the relative uniqueness of the variables in the sample. Therefore, interpretation of results in terms of causal inference must be done with caution. A final problem that can arise from the Stepwise procedure is that of variables which are

entered early in the process later assuming a non-significant or trivial contribution after other variables have been added. This difficulty can be overcome by instituting a removal criterion. That is, at each step the variables are examined to see whether or not any should be removed according to an F-to-enter/F-to-remove criterion. In the current research the F-to-enter/F-to-remove criterion levels were set, for the particular degrees of freedom involved, so variables entering the analysis did so with at least $p > .05$ level of significance. This ensured that variables retained nontriviality whilst remaining in the equation.

Reference to the intercorrelation matrix of all variables (see Appendix 12) confirms that there are large significant correlations between related variables from the different data sets. For instance Gender Average and Gender 1st ($r = -.74$) and Physical Average and Physical First ($r = .78$). This effect is not surprising as the data sets are likely to be related i.e., the mean data set is in part an aggregate of the first and last data sets. Cohen and Cohen (1983) note that such relationships between PV's can hide or suppress their real relationship with the criterion. In such cases where intercorrelated aggregate data exist, a Stepwise procedure (with a removal criterion), is useful as it examines the relative additional contribution made by each PV when added to the PV pool. Thus, Stepwise MRA is able to select out which variables account for a significant amount of variance and which variables are redundant in relationship to other PV's.

The stepwise MRA in the current study involved five analyses. Each MR equation had one criterion variable (one of the five variables relating to the subjects' first offence) and nine predictor variables (the physical and emotional ratings of the first, last and mean victimization experiences and one of the five matched variables relating to the first, last and mean CSA experiences). The predictor and criterion variables were matched so that age was used to predict age, gender to predict gender, and so on. These analyses are presented in Tables 10-14.

The only significant MR equation (i.e., where a significant, unique contribution was added to the R-square by one or some PV variables), was that illustrated in Table 13. In that MR equation, gender of the first victim is predicted by the mean physical rating of CSA experiences and the average gender of the subjects' perpetrators (with the Physical PV accounting for more of the variance than the Gender PV).

One significant intercorrelation existed between Mean Physical PV and the Gender CV, such that a physically pleasant CSA history was significantly associated with a male first victim, and a physically unpleasant CSA history was significantly associated with a female first victim ($r=-.366$, $p<.05$). Therefore, the function predicts that if the abuse is physically unpleasant the subject is more likely to offend against a female (especially if the subject's perpetrator was female). Conversely, if the abuse was physically pleasant the subject is more likely to offend against a male (again, this likelihood strengthened by, but not dependent upon, the perpetrator being was male).

At this stage of the data analysis it is important to note that the aforementioned significant MR function is not illustrative of a true replication effect. What the MR function does show is that the physical reaction to CSA is predictive of the gender of the first victim (this relationship strengthened by the effect of the gender of subject's perpetrators). However, before any true relication effect among these variables is examined it is of interest to discover the predictive power of the above MR function.

TABLE 10. STEPWISE REGRESSION EQUATION USING FORCE OF FIRST, LAST AND MEAN CSA, AND PHYSICAL AND EMOTIONAL RATINGS OF THE SAME, AS PREDICTORS OF FORCE OF FIRST OFFENCE.

Criterion variable: Level of Force of First Offence.

Variables entered	R-SQ	R-SQ Change	Beta	B	t	P
None						

TABLE 11. STEPWISE REGRESSION EQUATION USING ACT OF FIRST, LAST AND MEAN CSA, AND PHYSICAL AND EMOTIONAL RATINGS OF THE SAME, AS PREDICTORS OF ACT OF FIRST OFFENCE.

Criterion variable: Level of Intrusiveness of Act of First Offence.

Variables entered	R-SQ	R-SQ Change	Beta	B	t	P
None						

TABLE 12. STEPWISE REGRESSION EQUATION USING AGE OF
         SUBJECT OF FIRST, LAST AND MEAN CSA, AND
         PHYSICAL AND EMOTIONAL RATINGS OF THE SAME, AS
         PREDICTORS OF AGE OF FIRST VICTIM.

Criterion variable: Age of Victim of First Offence.

Variables entered	R-SQ	R-SQ Change	Beta	B	t	P
None						

TABLE 13. STEPWISE REGRESSION EQUATION USING GENDER OF
         PERPETRATOR OF SUBJECTS FIRST, LAST AND MEAN
         CSA, AND PHYSICAL AND EMOTIONAL RATINGS OF THE
         SAME, AS PREDICTORS OF GENDER OF FIRST VICTIM.

Criterion variable: Gender of Victim of First Offence.

Variables entered	R-SQ	R-SQ Change	Beta	B	t	P
Mean Physical	.1866	---	-.4982	-.197	-3.221	.0031
Mean Gender	.3073	.1207	-.3537	-.561	-2.287	.0295

R-SQ = .3073   F= 6.655   df= 2, 30   p< .0041

Variables not in equation	Partial Corr.
Mean Em'l	.1042
1st Gender	.1576
1st Phy'l	-.0070
1st Em'l	.1564
Last Gender	.1305
Last Phy'l	.1128
Last Em'l	.0631

Key: Mean Physical = 1-7: 1 = pain, 7 = pleasant.

     Mean Gender = Proportion of Subjects' Perpetrators
              (1 = all male).

TABLE 14. STEPWISE REGRESSION EQUATION USING SUBJECT-PERPETRATOR RELATIONSHIP OF FIRST, LAST AND MEAN CSA, AND PHYSICAL AND EMOTIONAL RATINGS OF THE SAME, AS PREDICTORS OF SUBJECTS' RELATIONSHIP WITH FIRST VICTIM.

Criterion variable: Level of Familial Relationship with Victim of First Offence.

Variables entered	R-SQ	R-SQ Change	Beta	B	t	P
None						

3-3-4 Receiver-Operating Characteristic

This third level of analyses seeks to answer the question: "What is the predictive power of the significant MR equation?" One way of ascertaining this is by analysing how much of the data (re. the gender of the subjects' first victims) is accounted for by the MR equation. In other words, given two groups (subjects who offend against females and subjects who offend against males in their first offence) how well does the MR function differentiate between the two samples.

Receiver-operating characteristic or ROC analysis is a technique of much relevance to psychological decision theory. It is used commonly in the analysis of categorical decisions in response to signal detection or yes-no choice situations (McNicol, 1972). Generally, ROC analysis is of use when one is interested in knowing the usefulness of a particular score dimension as an information base by which to differentiate between two groups. The smaller the overlap between the two groups along a dimension, the stronger the predictive power of that score dimension.

This is illustrated in Figure 1. Here P is the probability of accurate differentiation between groups as a function of the score dimension Y. As indicated by the shaded area, Y appears to poorly differentiate responses between the two groups in A.

FIGURE 1. ILLUSTRATION OF POOR VS WELL DIFFERENTIATED GROUPS AS A FUNCTION OF SCORE DIMENSION Y.

Score Dimension Y
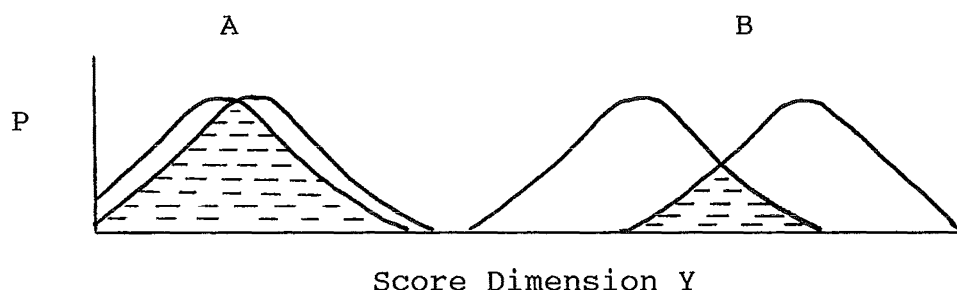
Conversely, the reverse holds for the two groups in B - there is good discrimination between the two groups as a function of Y. Thus, for the groups in B, Y is said to be highly predictive of the categorical choice response.

It is possible to transpose to the above model the current research question of how well the MR equation differentiates the subject sample into two distinct groups: those who abuse females and those who abuse males in their first offence. While the example given in Figure 1 is for one dimension (Y) it should be kept in mind that in the current study this dimension involves the combination of two dimensions related by the MR function: 1) Physical pleasantness; and 2) Proportion of subjects' perpetrators who were male.

The Y score can be conceived as the subjects' scores on the regression equation. Thus, the question of how

powerfully predictive the MR equation or how sensitively the MR equation actually correctly predicts the gender of the first victim (as indicated by the area of overlap between the two groups in Figure 1) is the subject of the following analysis.

The significant MR analysis can be expressed as the following equation: Y = Beta1 x X1 + Beta2 x X2 + C

Using the Beta and intercept values from the MR function in Table 13: Y = -.3537 x X1 -.4982 x X2 + 3.196

For each value of Y two probabilities were calculated: 1). P (Y>s/ Female victim) or hits; and 2). P (Y>s/ Male victim) or false alarms. This is expressed in Table 15.

TABLE 15. PROBABILITY OF HITS VS MISSES AS PREDICTED BY SUBJECT SCORES ON THE MR EQUATION.

Y Scores on Regression Function	Cumulative Distribution	
	Probability of Hits	Probability of False Alarms
-0.7 - -0.4	0.143	0
-0.4 - -0.1	0.143	0
-0.1 - 0.2	0.500	0
0.2 - 0.5	0.714	0.250
0.5 - 0.8	0.714	0.400
0.8 - 1.1	0.857	0.650
1.1 - 1.4	0.929	0.750
1.4 - 1.7	1.000	0.900
1.7 - 2.0	1.000	1.000

Similar to the example as in figure 1, the above data can be expressed graphically in order to visually compare the percentage of offenders in the two groups with Y scores in different ranges. These distributions are presented in Figure 2A and Figure 2B. Of note is the fact that 50% of offenders against males fall below the lowest Y range of

FIGURE 2a   DISTRIBUTION OF THE MULTIPLE
REGRESSION FUNCTION FOR OFFENDERS
AGAINST FEMALES

MULTIPLE REGRESSION FUNCTION
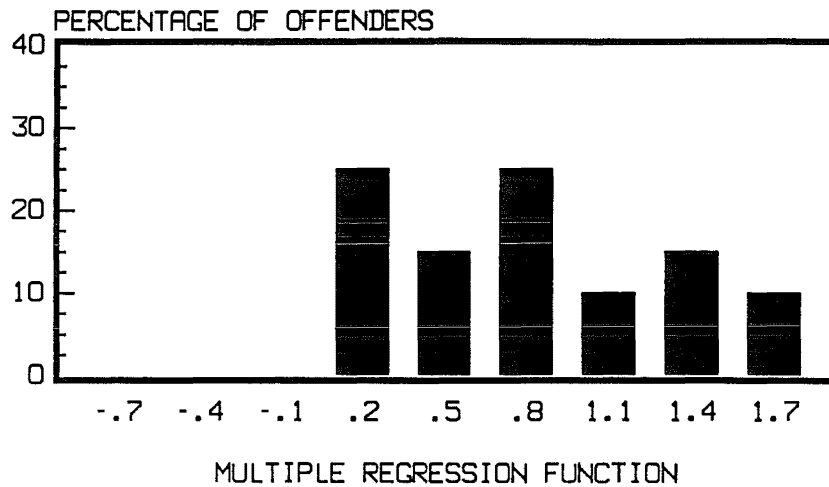
FIGURE 2b   DISTRIBUTION OF THE MULTIPLE
REGRESSION FUNCTION FOR OFFENDERS
AGAINST MALES

MULTIPLE REGRESSION FUNCTION
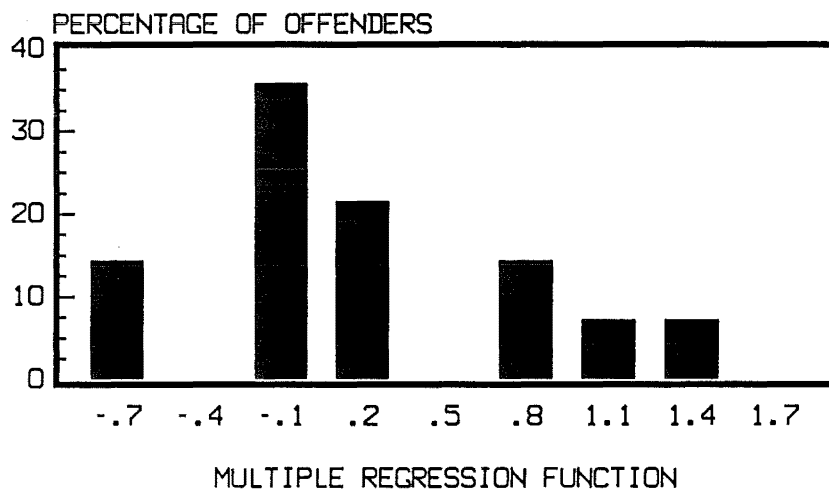
values of offenders against females. Moreover, a further 10%
of y scores of offenders against females fall above the
highest Y value of offenders against males.

The final step in this stochastic analysis is the
plotting of the two probability values. The greater the
overlap of the two probability dimensions, then the weaker
the predictive MR equation will be at predicting accurately
the victim's gender of any one of the subject's first
offence. In other words the greater the overlap between the

two dimensions, the greater the rate of false alarms. This is presented in Figure 3. The asterixed line represents chance prediction (.5 probabilty that a boy or a girl will be the first victim).

FIGURE 3. ROC CURVE PLOTTING THE PROBABILITY OF HITS VS FALSE ALARMS.
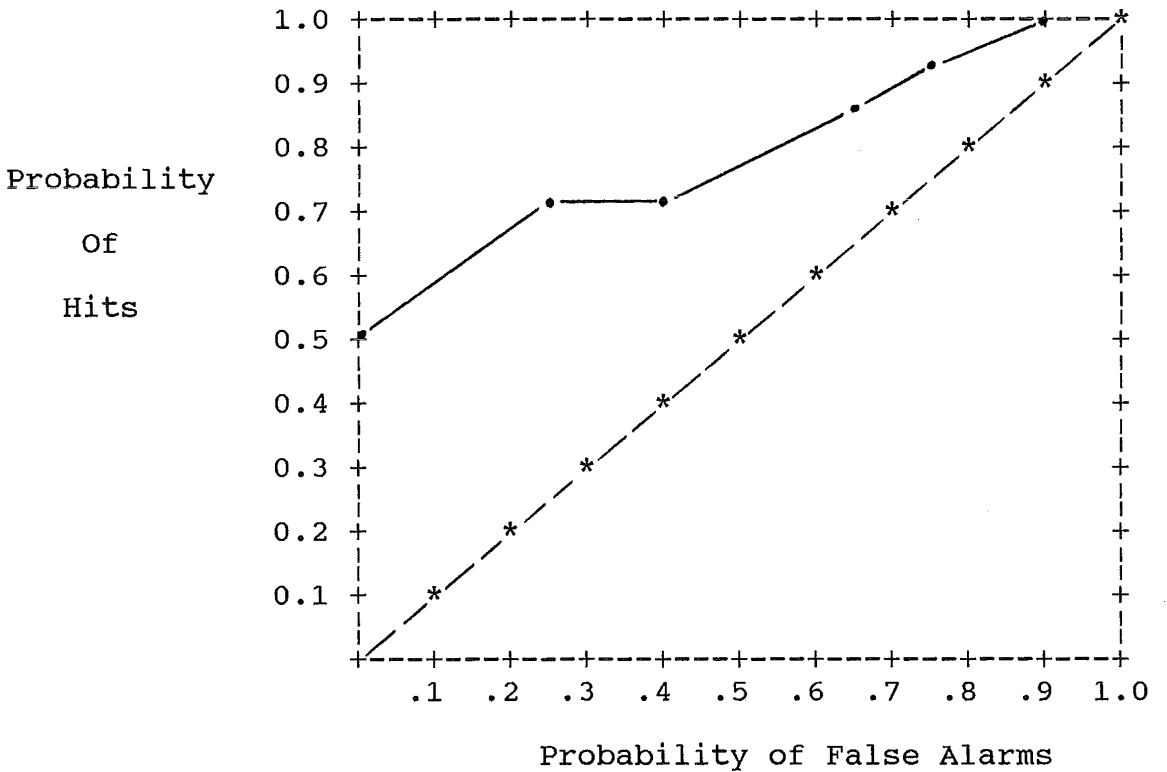
Finally the proportion of the area under the graph provides a sensitivity measure, indicating the proportion of the data successfully predicted from the MR equation.

The proportion of the current data successfully predicted from the MR equation, as indicated by the proportion of the area beneath the ROC curve, comes to 79%. This means that the gender of the first victim of 28 of the 35 subjects was able to be predicted from the gender of the subjects' perpetrators and the average physical rating of subjects' own CSA history.

3-4 PREDICTORS OF GENDER REPLICATION.

Two variables, namely mean gender and mean physical ratings, were found to predict the gender of the subjects' first victim. As the gender CV was the only dependent variable able to be predicted from matched CSA variables, and the mean data base was the only set of predictors able to do this, it was decided to ascertain whether or not such PV's from the Mean data set actually modulate a gender replication effect, in addition to just predicting the gender of the first victim. The fourth and final level of analysis aimed to address this question.

In order to achieve this, a super-ordinate CV was created to serve as an indice of gender replication. This was done by subtracting the independent variable 'Average Gender of Perpetrators' from the dependent variable 'Gender of First Victim'. This created a continuous super-ordinate CV measuring the extent of relication. A high value was indicative of a high degree of replication. This 'Extent of Replication' served as the CV, and seven PV's fom the Mean data set (Gender, Mean Age, Mean Act, Mean Force, Mean Relationship, and Mean Physical and Emotional ratings) were added to the Stepwise MRA.

The three PV's that contributed a significant, unique contribution to the R-SQ were the Mean Physical, Emotional and Act variables. As indicated by the R-SQ change the mean emotional variable accounted for more of the shared variance than the Mean Physical or Mean Act PV's.

In summary the MR function presented in Table 16 indicates that the happier, the more physically pleasant,

and more intrusive the sexual acts of the CSA history, the greater is the extent of gender replication in the first offence.

TABLE 16. STEPWISE REGRESSION FUNCTION WITH MEAN GENDER, ACT, AGE, FORCE AND RELATIONSHIP VARIABLES, AND MEAN PHYSICAL AND EMOTIONAL RATINGS, AS PREDICTORS OF EXTENT OF GENDER REPLICATION.

Criterion variable: Extent of Gender replication.

Variables entered	R-SQ	R-SQ Change	Beta	B	t	P
Mean Emotional	.2188	---	-.3135	-.0875	-2.129	.0416
Mean Act	.3466	.1279	.3937	.1655	2.891	.0071
Mean Physical	.4514	.1048	.3535	.1086	2.394	.0231

R-SQ = .4514   F= 8.230   df= 3, 30   p< .0004

Variables not in equation	Partial Corr.
Mean Rel'ship	.0422
Mean Gender	.3297
Mean age	-.1774
Mean Force	-.3192

Key: Mean Physical = 1-7: 1=pain; 7=pleasant.

Mean act = 1-5: 1=non-contact; 5=intercourse.

Mean Emotion = 1-7: 1=happy; 7=upset.

Chapter 4

DISCUSSION

4-1 DISCUSSION OF RESULTS IN RELATION TO THE HYPOTHESES.

What implications do the current results have for the hypotheses of the current study? Following is a summary of the hypotheses outlined in section 1-8-1.

1) That characteristics of the first CSA will be simply replicated in the first offence.

2) That characteristics of the last CSA will be simply replicated in the first offence.

3) That characteristics averaged over all CSA relationship will be simply replicated in the first offence.

4) That replication of first (a), last (b) or mean (c) CSA characteristics is stronger when associated with physical pleasure.

5) That replication of first (a), last (b) or mean (c) CSA characteristics is stronger when associated with physical pain.

6) That replication of first (a), last (b) or mean (c) CSA characteristics is stronger when associated with happiness.

7) That replication of first (a), last (b) or mean (c) CSA characteristics is stronger when associated with upsetting emotions.

Simple replication of CSA was not apparent to any

statistically significant degree. This was indicated by the lack of a significant simple association between CSA characteristics and matched first offence characteristics. Therefore, hypotheses 1 to 3 were not supported.

Gender of First Victim was the only criterion variable predicted from the matched set of CSA predictors. The only significant CSA predictor variables of any matched criterion variable were those belonging to the Mean data set. Replication of Gender was predicted from the variables: Mean Act, Mean Physical and Mean Emotional ratings. Therefore, based on these findings, hypotheses 4 (c) and 6 (c) were supported and hypotheses 5 and 7 were not supported.

4-2 DISCUSSION OF RESULTS IN RELATION TO THEORY.

What are the theoretical implications of the current results? Whilst the main intention of the study was not to support or refute any one theory of CSA replication, it seems useful to discuss the theoretical implications of the current findings.

Firstly, gender replication was found to be modulated by positive physical and emotional CSA experiences, a relationship more easily explained by behavioural than psychoanalytic models. Furthermore, replication was more likely if the type of acts in the CSA history were intrusive. Again this finding is consistent with behavioural and in particular classical conditioning models and does not seem easily explained by psychoanalytic theory. Finally, gender replication was found to be less a response to

single, discrete experiences and more a generalized response to multiple or long-standing experiences. Again, this result is more easily explained by the "generalisation effect" predicted by some behavioural theorists.

Given that the results are more supportive of behavioural than psychoanalytic models, what are some plausible psychological formulations for the significant regression function?

At a classical conditioning level, the erotic nature of a CSA experience and the ease with which the experience becomes conditioned stimuli, may be influenced by the type of CSA act experienced. Physically intimate CSA acts are likely to be more memorable and potentially more sexually arousing to the victim. Furthermore, the central role of sexually arousing CSA experiences is further accentuated by the finding that physically pleasant experiences modulate the gender replication process. Moreover, happy sexual relationships with adults may ocassion the victim to frequently focus on such rewarding experiences during times of fantasy and masturbation, this serving to shape up and maintain sexual preference for the deviant experience.

The operant viewpoint predicts sexual arousal and orgasm to be highly reinforcing of antecedent behaviours and cognitions, again underlying the importance of pleasant CSA experiences in the process of gender replication. More importantly it seems (from a statistical point of view), happy emotions associated with abusive experiences may be the strongest reinforcers of the behaviour chains leading to gender replication. Finally, from a social learning perspective, happy and physically pleasant experiences maybe

the variables that potentiate powerful modelling effects and the development of ego-syntonic belief systems that are reinforcing of victims repeating such behaviours as offenders.

Whilst not strictly relevant to replication, it is of some related interest to discuss the results relating to the prediction of gender of the first victim. An adequate explanation of these data requires two answers. Firstly, why physically unpleasant experiences lead to the abuse of girls, and secondly, why physically pleasant experiences lead to the abuse of boys (with perpetrator gender acting as a significant, but not a necessary, modulator in these relationships).

Whilst the simple association between the 'Mean Physical rating of all CSA experiences' and the 'Gender of the subject's First Victim' appears difficult to explain by means of any one theory, social learning models do appear to most easily account for the significant, but not necessary, influence of the perpetrators' gender modulating the relationship between 'Mean Physical' and 'Gender of the First Victim' variables.

For boys abused by male perpetrators there is likely to be a strong modelling effect making it more likely that they will abuse boys themselves. The abuse of boys by females may create conflict for the victim between the unpleasant experience of being abused and social mores and conventions (elaborated on in pornography and the media) that a male should enjoy the situation of "being initiated" into sexual activity by an older female. This, combined with the effects

on developing beliefs about males valuing and protecting females (i.e., "Why should I protect females given they do this to me?"), may motivate an abused male to sexually abuse females. However, what yet remains to be answered is why some men who experience unpleasant sexual abuse as boys (especially if committed by female perpetrators) end up victimizing young females rather than adult women.

Another interesting question is why does gender appear to be the only characteristic amenable to replication? Plausible explanations for this may be that gender preference is a primary or crystalized sexual behaviour, whilst other variables such as type of sexual act, degree of force or age may be more responsive to gradual alteration over time through processes such as masturbatory fantasy. Moreover, gender may be more consistently and/or clearly present in such fantasies, than variables such as age, act, force or relationship. Given this, the prefered gender of a victim, as a conditioned stimulus, may be less prone than other stimuli to extinction effects.

Finally, it is important to stress that such conclusions and theoretical interpretations should be treated as speculative and tentative in nature. A number of research limitations (discussed in the next section), including the fact that the current study was not designed to regorously differentially test the theoretical predictions, makes conservative interpretation of the current results a necessity.

4-3 LIMITATIONS OF THE CURRENT RESEARCH.

One prominent limitation of the current study is the nature of the sample. Firstly, it is restricted to incarcerated child sexual offenders. Finkelhor (1984) and Howells (1981) argued that such samples are highly biased by reporting and judicial procedures. Moreover, Finkelhor (1984) asserted that incarcerated child sexual offenders are likely to be the more prolific and extreme offenders. Thus, their behaviour may not be reflective of the normal developmental experiences of the "typical" offender, whoever he or she may be. Therefore, strictly speaking, the results of the current study should only be applied to populations of incarcerated offenders. Likewise, it is important not to extrapolate current results to female samples. As many characteristics of female abuse behaviour appear different to male behaviour (Watkins & Bentovim, 1990), without evidence to the contrary, replication should similary be treated as different across gender. Naturally, the study of female samples would be necessary to elucidate what gender differences, if any, exist.

Small sample size was another limitation of the current study. This limits the number of predictor variables open to analysis. As it appears CSA replication is not a simple phenomenon, the study of variables which modulate this process is a necessary component of this type of research (this will be discussed in more detail in the following section). Moreover, another problem with the small sample size is that it limits the detection of changes in explained variance in MR analysis (Cohen & Cohen, 1983).

The study of CSA replication is not accessible to true experiments or even longitudinal observation. Whilst one can still measure systematic differences among variables using reconstructive techniques, the inference of causation is more problematic. The analytic strategy of the current study, by making use of multiple regression, was based on correlations. While causality will often manifest in correlations, the reverse is not necessarily true. From correlational analysis one can not be sure whether causality is present and if so in which direction it flows. Moreover, a significant association between two variables does not indicate whether or not other intermediate variables are implicated in the causal pathway. For instance, in relation to the current results, one can not discount the possibility that there are other modulating variables responsible for the significant association between PV 'Mean physical' and CV 'Gender of the first victim'.

Clearly, careful replication and control of causal factors in other samples, as well as clinical observation in single case designs, are desirable means with which to elucidate the existence of causality. In terms of directional flow of causality, because of the obvious temporal lag between victimization and offence behaviour, one can be fairly certain that any causality will flow in the intuitive direction.

Linked with the reconstructive nature of the research are the problems associated with retrospective reporting of CSA and child sexual offending characteristics. Selectivity of memory recall is obviously relevant to any study reliant on self reports of historical events. To illustrate, some

subjects in the current study alluded to being victims of CSA but had no memory of the experience. Moreover, the sample generally reported their first childhood memories to be around the four-and-a-half year mark. This meant that any abusive experiences committed in these early years were not available for analysis.

Recall of CSA experiences may also be modulated by the degree of trauma associated with the experience. There may be a positive linear relationship between recall and degree of trauma, or even an inverted "U" shaped relationship. In the latter scenario moderately stressful experiences may be more easily recalled than benign experiences (susceptible to the usual processes of memory decay) or extremely traumatic ones which may be forgotten due to more active mechanisms such as psychogenic amnesia of traumatic experiences.

Due to the problems associated with retrospective analysis of behaviour, the prevalent rate of abuse, high as it may seem, may in fact be underestimated. One factor which suggests this may be the case is that many subjects did not class heterosexual victimization as abusive. Often the instances of heterosexual abuse were classified as such because it fulfilled age disparity criteria rather than the subjects also reporting such experiences as abusive. Therefore, it is possible that the prevalent rate of abuse by female perpetrators was underestimated. Whilst there also exists the possibility of an inflated CSA prevalence rate due to subject fabrication, the author believes this to be of little significance. The high degree of detail required about such experiences made it relatively simple to detect subjects who were fabricating stories in a self-serving

manner. Beyond commenting about the likely validity and reliability of the CSA prevalence rate, it is difficult to comment on the epidemiological significance of this figure in the absence of adequate control groups.

Finally, the influence of the concurrent therapy programme appeared to facilitate, rather than hinder, valid data collection. Not only were the sample aware of their own offending behaviour and knowledgeable about what constitutes CSA, any apparent minimization or incongruity in the subjects' statements was also able to be challenged by the researcher without seriously harming rapport.

4-4 FUTURE RESEARCH.

Just as many variables appear to modulate the development of offending behaviour per se (Finkelhor, 1984; Marshall & Barbaree, 1990), so to, replication of CSA appears similarly complex. Because causal analysis of CSA replication may involve complex relationships between sets of predictors and also possibly sets of criterion variables, canonical correlation analysis may be a useful analytic strategy to use in future studies with larger sample sizes.

Whilst, the current study was broad and exploratory in its aims, it is the author's suggestion that the current results were sufficiently suggestive to provide the incentive to further research the influence of a number of psychological variables. In particular, social learning and behavioural models of CSA replication deserve more comprehensive research. Also the effects of variables

relating to symbolic modelling, such as fantasy rehearsal, self-labelling and attributional processes in the sexually abused, are least known about.

Nonetheless, the author does not recommend the discarding of psychoanalytic-oriented research on replication. On the contrary, it is still important at this stage to be exploratory in such research. For instance, it is possible that more in-depth analysis of a broad range of theoretical models may expose replication phenomena which, hitherto, has yet to be discovered. One possibility (no-doubt frowned upon by theoretical purists), is that CSA replication is complementary or even interactive at a theoretical level. For instance, Finkelhor (1984) noted that while behavioural models explain the aquisition and maintenance of deviant arousal through classical conditioning and reinforcment processes involving fantasy rehearsal, such models do not adequately account for the content of such fantasies. Other possible modulating factors of replication worthy of future study are:

1) Differences between offender types, such as the so-called 'fixated' versus 'regressed' distinction (Groth and Freeman-Longo, 1979).

2) The effect of age of first victimization (as alluded to by the "abused before eight or it's too late" motto of some pedophile organisations; Watkins & Bentovim, 1990).

3) The interaction effect of other types of abuse (i.e., physical and neglect) concomitant with sexual abuse (Burgess et al,1988; Seghorn et al, 1987).

4) Analysis of non-sexual themes of deviant sexual
   fantasies (e.g., aggression/ revenge/ thoughts &
   desires of recapitulation of own abuse; Howells, 1981).

5) Measurement of intrusive images or thoughts and other
   post-trauma reactions to CSA in offenders.

6) Replication of characteristics of non-abusive child
   sexual experiences.

7) The effect of the temporal delay between last abuse and
   first offence.

8) Offenders with multiple abuse versus single abuse
   histories.

9) The effect of the victim's relationship (familial or
   otherwise) with the perpetrator model.

10) Use of penile plethysmography to gain a more "pure"
    measure of replication (as evidenced by sexual
    preference) than can be gained by measurement of actual
    behaviour affected by opportunity.

Whilst there no-doubt exists a host of other variables
of possible relevance to CSA replication, one important
factor is that of gender. Do adult female abusers replicate
their CSA experiences? If so, how is it similar or different
to male replication dynamics? Obviously, the main difficulty
in studying replication in females using a retrospective
design is the paucity of identified female abusers,
particularly in the criminal justice system. Indeed, given
the high rate of female abuse reported in the current
sample, the topic of female sexual offenders in general is
an important and much neglected area of research.

Hopefully, with future analysis of other variables

which may modulate CSA replication, models could be developed which will be able to differentially predict what offenders are most likely to replicate the characteristics of their own CSA in their offending behaviour.

4-5 IMPLICATIONS FOR TREATMENT OF VICTIMS AND OFFENDERS.

The treatment implications for gender replication appear relevant to both the treatment of sexually abused boys and the treatment of adult perpetrators.

In the case of an abused boy sexually acting-out in an inappropriate or aggressive manner toward children of the same gender as his perpetrators (especially if his own abuse was physically intrusive, pleasant and a happy experience), then the targeting of such behaviours in therapy may help prevent the crystalization of prototypical offending behaviours.

Being able to predict the gender-objects of an abused offender, is useful knowledge in the treatment of perpetrators. Such knowledge may be of use to the behavioural re-conditioning of sexually deviant preferences. The targeting of future gender-objects in such treatment may be an important step in decreasing the probability of future offending. The high rate of gender-object exclusivity among the current sample (77.8%) would indicate that prediction of the gender of all victims can be extrapolated from the (predicted) gender of the first victim with some degree of accuracy.

On a more psychotherapeutic level, Watkins & Bentovim

(1990) report powerful therapy effects when subjects become aware that they have been recreating their own abuse with other children. Groth & Burgess (1979) also suggest that, given the high rate of CSA in the histories of child sexual offenders, many offenders may require some assessment and treatment of unresolved trauma associated with childhood sexual assault.

Hopefully, when more knowledge is gained about other preconditions that influence the development and maintenance of replication specifically, and offending generally, then perpetrator prevention strategies for at-risk children and adolescents, and treatment strategies for adult offenders, will be more efficacious. What is certain at this stage is that more research is necessary to better understand and more effectively prevent child sexual abuse.

REFERENCES

Abel,G., & Rouleau,J.(1990).The nature and extent of sexual assault. In W.L Marshall, D.R Laws, & H.E Barbaree (eds.). Handbook of sexual assault: Issues, Theories, and treatment of the offender. New York: Plenum. (pp.9-21).

Baker,A. & Duncan,S.(1985). Child sexual abuse: a study of prevalence in Great Britain. Child Abuse and Neglect,9,457-467.

Bandura,A. & Walters,R.(1963). Social Learning and Personality Development. New York: Holt, Reinhart & Winston.

Bandura,A.(1969). Principles of Behaviour Modification. New York: Holt, Rinehart & Winston.

Banbura,A.(1973). Aggression: A Social Learning Analysis. New York: Prentice-Hall.

Banbura,A.(1977). Social Learning Theory. New York: Prentice-Hall.

Becker,J. (1988). The effects of child sexual abuse on adolescent sexual offenders. In G Wyatt & E Powell. Lasting effects of Sexual Abuse. Bevereley Hills: Sage.

Breuer,J. & Freud,S.(1954). Studies on Hysteria. Standard Edition, Vol.2. London: Hogerth press.

Bruckner,D. & Johnson,P.(1987). Treatment for adult male victims of childhood sexual abuse. Special Issue: Child Sexual Abuse, Social Casework,68,81-87.

Burgess,A,W.,Hazelwood,R.,Rokous,F.,Hartman,C. & Burgess,A,G.(1988). Serial rapists and their victims: reenactment and repetition. Annals of the New York Academy of Sciences,528,277-295.

Burnam,A.(1985).Personal communication to D Finkelhor concerning the Los Angeles Epidemiological Catchment Area Study.

Cantwell,H.(1988). Child sexual abuse: very young perpetrators. Child Abuse and Neglect,12,579-582.

Chasnoff,B.,Burns,W.,Schnoll,S.,Burns,K.,Chisum,G.,Kyle-Spore,L.(1986). Maternal-neonatal incest. American Journal of Orthopsychiatry,56,577-580.

Child Abuse & Neglect Publications (1981).

Cohen,J. & Cohen,P.(1983). Applied Multiple Regression/ Correlation Analysis for the Behavioural Sciences (2nd ed). New Jersey: Lawrence Erlbaum Associates.

Conte,H.R.(1983).Development and use of self-report techniques for assessing sexual functioning: a review and critique.Archives of Sexual Behavior,12,(6),555-575.

Conte,H.R.(1986).Multivaraite Assessment of Sexual Dysfunction. Journal of Consulting and Clinical Psychology,54,(2),149-157.

Croft,C.(1983).Spell-Write: An Aid to Writing, Spelling and Word Study. Wellington: New Zealand Council for Educational Research.

DeJong,A.,Hervada,A. & Emmett,G.(1983). Epidemiological variations in childhood sexual abuse. Child Abuse and Neglect,7,152-162

Dimock,P.(1988). Adult males sexually abused as children. Journal of Interpersonal Violence,3,203-221.

Faller,K.(1989). Why sexual abuse? An exploration of the intergenerational hypothesis. Child Abuse and Neglect,13,543-548.

Fehrenbach,P., Smith,W., Monastersky,C. & Deisher,R.(1986).
Adolescent sexual offenders: offender and offence
characteristics. American Journal of
Orthopsychiatry,56,225-223.

Fenical,D.(1945). The Psychoanalytic Theory of Neurosis. New
York: Norton.

Finkelhor,D.(1979). Sexually Victimized Children. New York:
Free Press.

Finkelhor,D.(1981). Sexual abuse of boys: the available
data. Paper VS14, Family Violence Research Programme.
Durham: University of New Hampshire.

Finkelhor,D.(1984). Child Sexual Abuse: New Theory and
Research. New York: Free Press.

Finkelhor,D.(1986). A Sourcebook on Child Sexual Abuse.
London: Sage.

Fitch,J.(1962). Men convicted of sexual offences against
children. British Journal of Criminology,3,18-37.

Fraser,M.(1976) The Death of Narcissus. New York: Paul
Hoeber.

Freeman-Longo,R.(1986). The impact of sexual victimization
on males. Child Abuse and Neglect,10,411-414.

Freund,K.(1967). Erotic preference in pedophilia.
Behavioural Research and Therapy,5,339-348.

Friedrich,W.,Beilke,R., & Urquiza,A.(1988). Behaviour
problems in young sexually abused boys. Journal of
Interpersonal Violence,3,21-28.

Friedrich,W.(1988). Behaviour problems in sexually abused
children: an adaptation perspective. In G Wyatt & E
Powell (eds). Lasting Effects of Child Sexual Abuse.
Beverley Hills: Sage.

Frisbie,L.(1969). Another look at sex offenders in California. <u>California Department of Mental Hygiene, Research Monograph No.12.</u> Sacramento.

Fritz,G.,Stoll,K. & Wagner,N.(1981). A comparison of males and females who were sexually molesteed as children. <u>Journal of Sex and Marital Therapy,7</u>,54-59.

Fromuth,M.(1986).The relationship of childhood sexual abuse with later psychological and sexual adjustment in a sample of college women. <u>Child Abuse and Neglect,10</u>,5-15.

Fromuth,M. & Burchard,B.(1987). Childhood sexual victimization among college men: definitional and methodological issues. <u>Violence and Victims,2</u>,241-253.

Fromuth,M. & Burchard,B.(1989).Longterm psychological correlates of childhood sexual abuse in two samples of college men. <u>Child Abuse and Neglect,13</u>,533-542.

Gaffney,G.,Lurie,S. & Berlin,F.(1984). Is their familial transmission of pedophilia. <u>Journal of Nervous and Mental Disease,172</u>(9),546-548.

Gale,J.,Thompson,R.,Moran,T., & Sack,W.(1988). Sexual abuse in young children: its clinical presentation and characteristic patterns. <u>Child Abuse and Neglect,12</u>,163-170.

Gebhard,P.,Gagnon,J.,Pomeroy,W. & Christensen,C.(1965). <u>Sex Offenders: An Analysis of Types</u>. New York: Harper and Row.

Goldstein,M.,Kant,H., & Hartman,J.(1973). <u>Pornography and sexual deviance</u>. Los Angeles: University of California Press.

Gough,E.(1960).Psychological Scales. <u>Journal of Nervous and Mental Diseases,131</u>(1),330-338.

Groth,A. & Birnbaum,H.(1978). Adult sexual orientation and attraction to underage persons. Archives of Sexual Behaviour,7,175-181.

Groth,A.(1979). Sexual trauma in the life histories of rapists and child molesters. Victimology,4,10-16.

Groth,A. & Burgess,A.(1977) Motivational intent in the sexual assault of children. Criminal Justice and Behaviour,4(3),253-264

Groth,A.(1979). Men Who Rape: The Psychology of the Offender. New York: Plenum.

Groth,A.,Hobson,W. & Gary,T.(1982). The child molester: clinical observations. In J Conte & D Shore (eds.). Social Work and Child Sexual Abuse. New York: Haworth.

Haynes-Seman,C. & Krugman,R.(1989). Sexualised attention: normal interaction or precursor to sexual abuse? American Journal of Orthopsychiatry,59,238-245.

Horowitz,M.(1976). Stress Response Syndromes. New York: Jason Aronson.

Howells,K.(1981). Adult sexual interest in children: considerations relevant to theorires of aetiology. In M Cook & K Howells (eds.). Adult Sexual Interest in Children. New York: Academic Press.

Johnson,T.(1988). Child perpetrators - children who molest other children: preliminary findings. Child Abuse and Neglect,12,219-229.

Johnson,T.(1989). Female child perpetrators: children who molest other children. Child Abuse & Neglect,13,571-585.

Kaplan,M.S.(1985). The impact of parolees' perceptions of
    confidentiality on the reporting of their urges to
    interact sexually with children. Unpublished Doctoral
    Dissertation, New York University.

Kaufman,J. & Zigler,E.(1987). Do abused children become
    abusive parents? American Journal of
    Orthopsychiatry,57,186-192.

Kersher,G. & McShane, M.(1984). The prevalence of child
    sexual abuse victimization in an adult sample of Texas
    residents. Child Abuse and Neglect,8,495-502.

Kolko,D.,Moser,J., & Weldy,S.(1988). Behavioural/emotional
    indicators of sexual abuse in child psychiatric
    inpatients: a controlled comparison with physical abuse.
    Child Abuse and Neglect,12,529-541.

Langevin,R.(1985). Erotic Preference, Gender Identity and
    Aggression in Men: New Research Studies. New Jersey:
    Lawrence Erlbaum.

Langevin,R. & Martin,M.(1975). Can erotic responses be
    classically conditioned? Behaviour Therapy,6,350-355.

Laws,D.R. & Marshall,W.L.(1990).A conditioning theory of the
    etiology and maintenance of deviant sexual preference and
    behavior. In W.L Marshall, D.R Laws, & H.E Barbaree
    (eds.). Handbook of sexual assault: Issues,
    Theories, and treatment of the offender. New York:
    Plenum.(pp.9-21).

Livingston,R.(1987). Sexually and physically abused
    children. Journal of the American Academy of Child &
    Adolescent Psychiatry,26,413-415.

Longo,R.(1982). Sexual learning and experiences amongst adolesecent sexual offenders. International Journal of Offender Therapy and Comparative Criminology,26,235-241.

Lustig,N.,Dresser,J.,Spellman,S. & Murray,T.(1966) Incest. Archives of General Psychology,14,31-40.

McGuire,R.,Carlisle,J. & Young,B.(1965). Sexual deviations as conditioned behaviour: a hypothesis. Behaviour Research and Therapy,2,185-190.

McNicol,D.(1972).A Primer of Signal Detection Theory. Sydney: George, Allen and Unwin.

Marshall,W.,Barbaree,H. & Christophe,D.(1986). Sexual offenders against female children: sexual preference for age of victims and type of behaviour. Canad. J. Behav. Sci/rev. Canad. Sci. Comp,18(4),424-439.

Marshall,W.L.& Barbaree,H.(1990). An integrated theory of the etiology of sexual offending. In W.L Marshall, D.R Laws, & H.E Barbaree (eds.). Handbook of sexual assault: Issues, Theories, and treatment of the offender. New York: Plenum. (pp.9-21).

Morgan,P.(1982). Alcohol and family violence: a review of the literature. National Institute of Alcoholism and Alcohol Abuse, Alcohol consumption and Related Problems. Alcohol and Health Monograph 1. Washington, D.C.:DHHS.

Mrazek,P.,Lynch,M. & Bentovim,A.(1983). Sexual abuse of children in the United Kingdom. Child Abuse and Neglect,7,147-153.

Nasjleti,M.(1980). Suffering in silence: the male incest victim. Child Welfare,59,269-275.

Nielsen,T.(1983). Sexual abuse of boys: current

   perspectives. The Personnel and Guidance Journal,61,139-

   142.

Paitch,D.,Langevin,R.,Freeman,R.,Mann,K.,& Handy,L.(1977).

   The Clarke SHQ: A clinical sex history questionnaire for

   males. Archives of Sexual Behavior,6,(5),421-436.

Panton,J.(1978). Personality differences appearing between

   rapists of adults, rapists of children and non-violent

   sexual molesters of female children. Res. Comm. Psychol.

   Psychiat. Behaviour,4,338-393.

Peters,J.(1976). Children who are victims of sexual assault

   and the psychology of offenders. Amer. J.

   Psychother.,30,398-421.

Peters,S.,Wyatt,G. & Finkelhor,D.(1986). Prevalence. In D

   Finkelhor. A Sourcebook on Child Sexual Abuse. London:

   Sage.

Pierce,R. & Pierce,L.(1985). The sexually abused child: a

   comparison of male and female victims. Child Abuse and

   Neglect,9,191-199.

Pithers,W.,Kashima,K.,Cumming,G. & Beal,L.(1988). Relapse

   prevention: a method of enhancing maintenance of change

   in sex offenders. In A Salter. Treating Child Sexual

   Offenders and Victims: A practical Guide. Beverley Hills:

   Sage.

Quinsey,V.,Steinman,C.,Bergensen,S. & Holmes,T.(1975).

   Penile circumference, skin conduction and ranking

   responses of child molesters and "normals" to sexual and

   non-sexual visual stimuli. Behaviour Therapy,6,213-219.

Rachman,S.(1966). Sexual fetishism: an experimental

analogue. Psychological record,16,293-296.

Risen,L. & Koss,M.(1987). The sexual abuse of boys:

prevalence and descriptive characteristics of childhood

victimizations. Journal of Interpersonal Violence,2,309-

323.

Rogers,C. & Terry,T.(1984). Clinical intervention with boy

victims of sexual abuse. In I.R Stuart & J.G Greer (eds).

Victims of Sexual Aggression: Treatment of Children,

Women and Men. New York: Van Nostrand Reinhold Company.

Roget,P.M.(1938).Rogets Thesaurus. New York:Avenel Books.

Rush,F.(1980). The Best Kept Secret. New York: Prentice-

Hall.

Russell,D.(1983). The incidence and prevalence of

intrafamilial and extrafamilial sexual abuse of female

children. Child Abuse and Neglect,7,133-146.

Salter,A.(1988). Treating Child Sex Offenders and Their

Victims: A Practical Guide. Beverley Hills, Sage.

Sansonnet-Hayden,H.,Haley,G., Marriage,C. & Fine,S.(1987).

Sexual abuse and psychopathology in hospitalized

adolescents. Journal of the American Academy of Child and

Adolescent Psychiatry,26,753-757.

Schechter,M. & Roberge,L.(1976). Sexual exploitation. In R

Helfer & C Kemp (eds). Child Abuse and Neglect: The

Family in the Community. Cambridge, Mass: Ballinger.

Schwartz,B.(1984). Psychology of Learning and Behaviour (2nd

ed.). New York: Norton.

Seghorn,T.,Prentky,R. & Boucher,R.(1987). Childhood sexual abuse in the lives of sexually aggressive offenders. Journal of the American Academy of Child and Adolescent Psychiatry,26(2),262-267.

Silbert,M. & Pines,A.(1981). Sexual abuse as an antecedent to prostitution. Child Abuse and Neglect,5,407-411.

Smith,H. & Israel,E.(1987). Sibling incest: a study of the dynamics of 25 cases. Child Abuse and Neglect,11,101-108.

Sorrenti-Little,L.,Bagley,C.,& Robertson,S.(1984).An operational definition of the long-term harmfulness of sexual relations with peers and adults by young children. Canadian Children,9,46-57.

Stoller,R.(1975). Perversion: The erotic Form of Hatred. New York: Pantheon Books.

Vander Mey,B. & Neff,R.(1982) Adult-child incest: a review of research and treatment. Adolescence,17,717-735.

Vander Mey,B.(1988).Sexual victimization of male children: a review of previous research. Child Abuse and Neglect,12,61-72.

Ward,T.,Nielson,P. & Marshall,W.(1990).The Kia Marama Programme for Sex Offenders - An Overview. Paper presented at the international conference: Sex Offenders: Management Strategies for the 1990's. Melbourne.

Watkins,B. & Bentovim,A.(1990). Male Children & Adolescents as Victims: A Review of the Current Knowledge.Unpublished Draft.

Wyatt,G.(1985). The sexual abuse of Afro-American and White American women in childhood. Child Abuse and Neglect,9,507-519.

Wyatt,G. & Peters,S.(1986). Issues in the definition of
    child sexual abuse in prevalence research. <u>Child Abuse</u>
    <u>and Neglect,10</u>,231-240.

APPENDICES

Appendix 1 RUSSELL-ADAPTED CHILD SEXUAL ABUSE HISTORY QUESTIONNAIRE.

Introduction:

" I am interested in hearing about experiences you had as a child, that is before you had your 16th birthday. I am interested in the friendships and relationships you had with children and adults when you were a child. Also, I am interested in hearing about any sexual experiences you may have had as a child, either with friends or with people older than yourself. "

1). What is the first memory you have as a child?(***)

2). When you were a child were you ever upset by anyone exposing their genitals to you?(**)

3). Before you turned 16, were you ever upset by anyone watching you undress or staring at you when you were naked?(***)

4). Did anyone ever try or succeed in having any kind of sexual intercourse with you against your wishes before you turned 16?(**)

5). Did you ever try or succeed in having any kind of sexual intercourse with any one else before you turned 16?(***)

6). I those years did anyone ever try or succeed in getting you to touch their genitals with your hand or your mouth (besides any experience you have already mentioned)?#(**)

7). Did anyone ever try or succeed in touching your genitals with their hand or their mouth against your wishes, before you turned 16?(**)

8). Before you turned 16 did anyone feel you, grab you or kiss you in a way that you found sexually threatening (besides anyone you have already mentioned)? (**)

9). Before you turned 16 did you have any (other) sexual experiences, either upsetting or pleasant, that you have not mentioned yet?(**)

10). Have you ever had any unwanted sexual experience with a girl or a woman?(*)

11). Have you ever had any unwanted sexual experience with a boy or a man?(***)

12). Some people have unwanted sexual experiences with someone who had authority over them such as a doctor, teacher, employer, priest, policeman or much older person. Did you have any unwanted sexual experience with someone who had authority over you?(**)

13). People don't often think about their relatives when thinking about sexual experiences, so the next two questions are about relatives. At any time has ever an uncle, brother, father, grandfather or female relative ever had any kind of sexual experience with you?(*)

14). Have you ever been the victim of a rape or attempted rape?(**)

15). Has anyone less closely related to you such as a step-parent, step-brother, step-sister-in-law or first cousin ever had any kind of sexual contact with you?(*)

16). As a child did you ever have any sexual contact with anyone who was less than 5 years older than you?(***)

17). Before the age of 16 did you have any sexual contact with a stranger or a friend of the family who was not related to you at all (that you haven't already mentioned)?(***)

18). Had you ever narrowly missed being sexually involved with someone?(**)

19) Have you ever been in any situation where their was violence or threat of violence where you were also afraid of being sexually assaulted (other than you have already mentioned)?(*)

20). Have you ever been in a situation where anyone used bribes or promises of rewards or punishments to get you to do something sexual against your wishes?(***)

21). Before you were 16 did you ever have any sexual contact with anyone that was your idea and that you wanted it to happen?(***)

22). As a child did you ever watch sexual activity involving other adults or children, either in real life or in magazines or movies?(***)

23). As a child did another adult ever masturbate him or herself in front of you?(***)

24). Can you think of any other sexual experiences before you were 16 that you haven't mentioned yet?(**)

LEGEND:

*   = Russell's original question
** = Adaptation of original Russell question
*** = Additional question
#   = Wording in brackets was used as appropriate

Appendix 2   LIKERT-TYPE SCALE: RETROSPECTIVE PHYSICAL RATING
              OF CHILD SEXUAL ABUSE

Code Number:_____

Please put a circle around the number that shows how your
childhood sexual experience felt PHYSICALLY.

If it hurt more than falling off your push bike and grazing
your knee when you were a kid then put a circle around No.
1. If it was about as painful as falling off your bike and
grazing your knee then put a circle around No.2. If it was
painful but not as painful as falling off your bike and
grazing your knee then circle No. 3.

If the experience was pleasant or felt good, even better
than eating your favourite food, then circle No. 7. If the
experience was about as pleasant as good as eating your
favourite food then circle No. 6. If it felt pleasant but
not as pleasant as eating your favourite food then circle
No.5.

If the experience felt physically neutral, that is neither
painful nor pleasant, then circle No. 4.

If you had more than one episode of abuse please indicate
how it felt physically the first time and the last time it
happened.

"When my childhood sexual experience was happening to me it
was physically..."


```
                              Not painful
   Extremely                    & not                        Extremely
   Painful                     pleasant                      Pleasant
     1-------2---------3---------4--------5--------6--------7
             ^                                    ^
          Like falling                        Like eating
          off bike &                          my favourite
          grazing knee                        food eg.ice-
                                              cream, sweets.
```
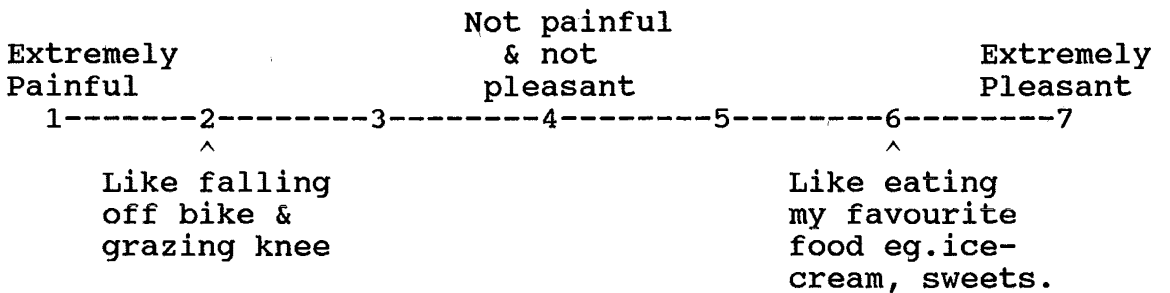
Appendix 3   LIKERT-TYPE SCALE: RETROSPECTIVE EMOTIONAL
             RATING OF CHILD SEXUAL ABUSE

Code Number:_____

Please put a circle around the number that shows how
your experience of sexual abuse felt like EMOTIONALLY when
you were a child.

If it made you feel more happy than going to a friend's
birthday party when you were a kid then put a circle around
No. 1. If it made you feel about as happy as going to a
birthday party then put a circle around No.2. If you felt
happy about it but not as happy as going to a friend's party
then circle No. 3.

If the experience made you feel more upset than being lost
in a crowd for the first time on your own when you were a
kid then circle No. 7. If the experience was about as
upsetting as being lost in a crowd for the first time on
your own then circle No. 6. If it was upsetting but not
quite as bad as being lost in a crowd for the first time
then circle No.5.

If the experience made you feel neutral: neither happy nor
upset then circle No. 4.

If you had more than one episode of abuse please indicate
how it felt emotionally the first time and the last time it
happened.

"When my childhood sexual experience was happening to me I
felt emotionally..."


```
                                Not happy
Extremely                       and not                    Extremely
Happy                            upset                         Upset
   1--------2---------3---------4--------5--------6-------7
            ^                                     ^
        Like going                           Like being
        to friend's                          lost in a
        birthday                             crowd for the
        party                                first time
                                             on my own.
```
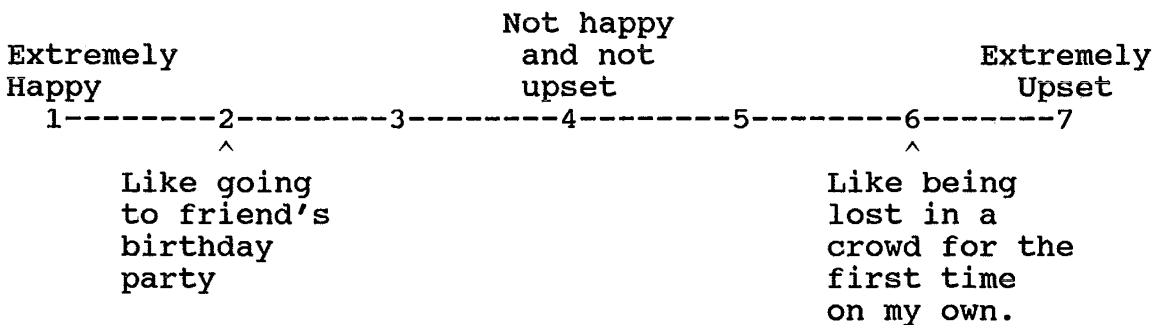
Appendix 4   SEXUAL OFFENCE QUESTIONNAIRE

Code Number:_____

The following questions refer to male sexual partners 12 years and younger, that is those who have not reached puberty (not reached physical maturity)

1). Have you had sexual contact with a boy aged
       12 years or younger and who was also younger
       than yourself by 5 or more years?.........YES [ ] NO [ ]

If your answer to 1) is YES then carry on with question 2).
If your answer is NO, then go to question 6).

2). How old were you when you had your first
       sexual contact with a boy who was aged
       12 years or younger who was also younger than
       yourself by 5 or more years?.................AGE   [   ]

3). How many boys aged 12 years or younger, who
       were also younger than yourself by 5 or more
       years, have you had sexual contact with?....BOYS [   ]

4) What is the total number of times that you have had
       sexual contact with these boys aged 12 years or
       younger?....................................TIMES [   ]

5) What was your relationship with these boys aged
       12 years or younger?.........................REL. [   ]

The following questions refer to male sexual partners 13-15 years, that is those undergoing puberty (changing from a child to a physically mature person).

6) Have you had sexual contact with boys aged
       13-15 years, and who were also younger than
       yourself by 5 or more years?..............YES [ ]   NO [ ]

If your answer to 6) is YES then carry on with question 7).
If your answer is NO, then go on to question 11).

7). How old were you when you had your first
       sexual contact with a boy aged 13-15 years who
       was also younger than yourself by 5 or more
       years?......................................AGE [   ]

8). How many boys aged 13-15 who were also younger
    than yourself by 5 or more years, have you had
    sexual contact with?..........................BOYS [   ]

9) What is the total number of times you have had
   sexual contact with these boys age 13-15
   years?.......................................TIMES [   ]

10) What was your relationship with these boys aged
    13-15 years?.................................REL. [   ]

The following questions refer to female sexual partners 12
years and younger, that is those who have not yet reached
puberty (not reached physical maturity).

11). Have you had sexual contact with a girl aged
     12 years or younger and who was younger than
     yourself by 5 or more years?...........YES [ ]   NO [ ]

If your answer to 11) is YES then carry on with question
12). If your answer is no, then go the question 16).

12). How old were you when you had your first
     sexual contact with a girl who was aged
     12 years or younger who was also younger than
     yourself by 5 or more years?................AGE [   ]

13). How many girls aged 12 years or younger, who
     were also younger than yourself by 5 or more
     years, have you had sexual contact with?..GIRLS [   ]

14) What is the total number of times thst you have had
    sexual contact with these girls aged 12 years or
    younger?....................................TIMES [   ]

15) What was your relationship with these girls aged
    12 years or younger?........................REL. [   ]

The following questions refer to female sexual partners age
13-15 years, that is those undergoing puberty (changing from
a child to a physically mature person).

16) Have you had sexual contact with girls aged
    13-15 years who were also younger than
    yourself by 5 or more years?...........YES [ ]   NO [ ]

If your answer to 16) is YES then carry on with question
17). If your answer is NO, then go to END.

17). How old were you when you had your first sexual
contact with a girl aged 13-15 years who was
also younger than yourself by 5 or more years?..AGE [ ]

18). How many girls aged 13-15 who were also younger
than yourself by 5 or more years, have you had
sexual contact with?.........................BOYS [   ]

19) What is the total number of times that you have
had sexual contact with these girls age 13-15
years?.....................................TIMES [   ]

20) What was your relationship with these girls aged
13-15 years?................................REL. [   ]

Appendix 5   FIRST OFFENCE QUESTIONNAIRE

CODE NO..........

"I am now interested in getting some details about your
first sexual contact with a child who was 5 or more years
younger than yourself."

1. How old were you when you had your first
   sexual contact with a child who was five
   or more years younger than yourself?.....PERP. AGE [   ]

2. How old was the child?.....................VIC. AGE [   ]

3. Was the child a boy or a girl?..........BOY [ ]   GIRL [ ]

4. How was the child related to
   you? (How did you know the child?)............REL [   ]

5. What did you and the child do in
   your first sexual contact together?............ACT [   ]

6. How did you get the child to go along
   with this sexual contact.......................FOR [   ]

Appendix 6   INTRUSIVITY OF SEXUAL ACT CODE (from least to most intrusive)

1
A] Request by other to do something sexual
B] Witnessing of pornography
C] Distressed witness of adult sexual activities
D] Exibitionism
E] Masturbation in company of other

2
F] Sexually motivated manual contact of non-sex parts
G] Sexually motivated oral touching of non-sex parts

3
H] Sexually motivated manual fondling of breasts
I] Sexually motivated manual fondling of genitals
J] Sexually motivated manual fondling of rectum
K] Oral touching of breasts
L] Oral touching of genitals
M] Oral touching of rectum

4
M] Superficial genital-genital contact

5
N] Anal intercourse
O] Vaginal intercourse

Appendix 7 DEGREE OF FORCE CODE (from most to least forceful)

1

A] Other use of excessive violence
B] Physical violence on Victim
C] Threat of violence to Victim or Family

2

D] Use authority
E] Negative Tangible inducement (punishment)
F] Positive Tangible inducement (reward)
G] Non-tangible inducement

3

H] Victim invitation or full consent

Appendix 8   INFORMED CONSENT FORM

UNIVERSITY OF CANTERBURY   DEPARTMENT OF
                                                  PSYCHOLOGY

CONSENT FORM

Brief Description of Project:

Firstly, I would be interested in talking with you about
your childhood experiences, especially any sexual
experiences you may have had with other people before you
were age 16.

You may also be asked to rate briefly how these experiences
felt like for you.

Finally, I will ask you some questions about your offending
behaviour.

Risks Associated With Participation:

All information will be treated as totally confidential to
yourself and Mr David Robertson; it will be kept independent
from the prison and Justice Dept. records and personnel. In
no way will participation in this study influence your
prison term or treatment whilst in prison.

There will be opportunity if you feel you require
counselling for any issues raised for you, through your
involvement in this study.

Name of Researcher: David Robertson.

I agree to participate in the project described above, on
the understanding that if at any time I wish to withdrawl
from the study I may, without prejudice, do so. All
information will be kept confidential, as will the identity
of participants.

Name:......................

Signature:..........................

Date:..............

Appendix 9   KIA MARAMA TREATMENT PROGRAMME (1990)*

All treatment is provided in a group format (8-10 men plus one therapist) over a 32 week period. The first and last four weeks of the programme are devoted to assessment. the remaining 24 weeks are divided into six segments of four weeks each. The groups meet for two and a half hours per day, four days per week. The programme, essentially, consists of two phases. In the first six weeks, the focus is on increasing motivation to change by challenging beliefs concerning the offence, encouraging the men to take responsibility and increasing empathy for victims. The remainder of the programme concentrates on skills acquisition and relapse prevention strategies.

In more detail, the programme content is as follows:

Segment 1

Cognitive Restructuring

The focus here is on (a) denial of the crime and/or minimization of the extent of their offences (eg. "I touched her genitals but did not have oral sex with her as she claimed"); (b) misperceptions of the offence and/or adult-child sex which justify continued offending (eg children are sexually seductive; they enjoy sex with adults; they are able to give consent to sex; they profit from sex with adults in some way); and (c) inappropriate attributions of responsibility for their offences (eg "I wouldn't have done this had I not been drunk or had my wife been more sexually forthcoming, or if I had not been sexually abused when I was young").

Segment 2

a) Behavioural Reconditioning

This occupies half of the time devoted to this segment. The men are taught ways to change their sexual preference from children to adults. The procedures used include covert sensitization, orgasmic reconditioning and satiation techniques.

b) Victim Impact/Empathy

This occupies the other half of this segment and focuses, first, on the immediate and long-term effects of child abuse on the victim with illustrative case examples, role plays, etc, and emphasis then changes to training the offenders to develop empathy for their victims or potential victims.

Segment 3

a) Interpersonal skills

Here the men are trained in the skills necessary to be assertive, express feelings, overcome anxiety, and carry on effective conversations, particularly with adults. Along the way, work is done to enhance the men's self esteem.

b) Relationship Skills

The aim is to teach the men how to develop and maintain effective relationships with adults. Groups look at how to engage in mutually enjoyable activities, solving conflicts effectively by being rewarding and supportive of one another, developing intimacy and increasing communication skills and emotional expressiveness.

Segment 4

a) Social Problem Solving

Half of this segment is devoted to teaching the men how to define a problem, how to generate alternative solutions, how to weigh up the consequences of these alternatives and how to make a decision work once it is chosen and acted upon.

b) In the second half of the segment, the men chose one of the following two options:

    i) Anger management

    ii) Problems with alcohol and/or drugs:
       Here groups concentrate particlarly on
       the relationship between substance abuse
       and sexual offending and develop appropriate
       self-management strategies.

Segment 5

a) Stress Management

In one half of this segment the men are taught how to reduce the amount of stress in their lives and how to deal effectively with the stress they cannot avoid. Relaxation training is an imporant component.

b) Sex Education

The focus is on the range of acceptable sexual behaviours, particularly those that increase the full enjoyment of adult sexual relations. We also attempt to modify inaproppriate sexual attitudes and to have men understand the full variety of needs which can be met through sexual relations with adults.

Segment 6

In this final phase, we teach the men how to cope with difficulties that may arise on their release.

a) Relapse Prevention

This takes up all of the final segment. The men are aided in identifying high risk situations, how to avoid them when possible and how to cope effectively with them when avoidance is not possible. They are also introduced to their "relapse process" and the role of "apparently irrelevant decisions" and the "abstinence violation effect" in increasing their risk of reoffending. They learn to counter these processes.

b) Release Plans

A six month post-release programme will include ongong therapy, contact with a probation officer and establisment of community support networks for each man.

* The content of Appendix 10 was taken from Ward, Neilson and Marshall (1990).

Appendix 10   CHILD SEXUAL ABUSE HISTORY CODE FORM

Code Number:_____
Sexual abuse? Yes____   No____
Age 1st memory: _____
Time length of abuse: age_____ to _____

VICTIM RELATIONSHIP	OFFENDER SEX	AGE	ABUSE EPISODES ACT	1st	VIO.	NO.	AGE
Biolog. parent	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Step parent	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Siblings	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Step siblings	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Grandparent	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Sibling-in-law	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Stp sib-in-law	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Uncle/Aunt	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Cousin	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Friend	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Author'y Fig.	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Acquaintance	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
Stranger	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]
	[ ]	[ ]	{ }	[ ]	[ ]	[ ]	[ ]

Appendix 11   SUBJECTS' CHILD SEXUAL ABUSE CHARACTERISTICS.

SUBJECTS' AGE OF FIRST CSA EXPERIENCE

Age	Sample %	N=35
1-3	2.9	
3-5	14.7	
5-7	26.5	
7-9	23.5	
9-11	11.7	
11-13	5.9	
13-15	14.7	

LENGTH (IN YEARS) OF SUBJECTS' CSA HISTORIES

YEARS	SAMPLE %	MEAN	N=35
<1	28.3	3.9	
1-2	3.1		
2-3	9.4		
3-4	6.3		
4-5	15.7		
5-6	9.4		
6-7	3.1		
7-8	6.3		
8-9	3.1		
9-10	12.5		
10-11	–		
11-12	3.1		

FREQUENCY OF CSA RELATIONSHIPS

NUMBER RELATIONSHIPS	SAMPLE %	MEAN	N=35
1	32.4	1.8	
2	35.3		
3	20.6		
4	5.9		
5+	5.9		

CUMULATIVE FREQUENCY OF CSA EPISODES

EPISODES	SAMPLE %	CUM. FREQUENCY
1-5	41.2	33
5-10	47.1	47
10-15	58.8	95
15-20	61.8	112
20-25	70.6	181
30-35	73.5	212
45-50	76.5	258
100-200	88.2	789
200-300	91.2	1,039
300-400	94.1	1,340
3,000-4,800	100.0	10,142

Appendix 12 INTERCORRELATION MATRIX OF ALL VARIABLES.

Where r>.329 is significant at the .05 level.
Where r>.424 is significant at the .01 level.

	AGE CV	GENDER CV	ACT CV	REL'P CV	FORCE CV	AGE 1ST	GENDER 1ST	ACT 1ST
AGE CV	1	-.14	.12	-.13	-.10	-.12	-.04	-.14
GENDER CV	-.14	1	.16	-.43	-.10	.21	.20	.03
ACT CV	.12	.16	1	-.09	-.04	-.13	-.05	.23
REL'P CV	-.13	-.43	-.09	1	.22	-.07	.26	.11
FORCE CV	-.10	-.10	-.04	.22	1	-.09	-.19	.08
AGE 1ST	.02	.21	-.13	-.07	-.09	1	.07	-.06
GENDER 1ST	-.04	.23	-.05	.26	-.19	.07	1	.05
ACT 1ST	.14	.03	.13	.11	.08	-.06	.05	1
REL'P 1ST	.24	-.19	.05	.15	.05	.43	-.18	-.11
FORCE 1ST	.10	-.26	-.14	.24	.30	-.13	.17	.17
EM'N 1ST	-.21	.23	.17	-.30	.00	-.20	-.39	-.08
PH'L 1ST	.12	-.36	-.13	.47	.04	-.12	.46	.04
AGE LST	.07	.20	-.05	.26	-.04	.26	-.07	-.09
GENDER LST	.01	.29	-.05	-.35	-.14	.02	.09	.08
ACT LST	-.42	-.19	.20	.39	.05	.03	.34	.17
REL'P LST	.32	-.18	-.01	.03	-.12	.24	-.16	-.18
FORCE LST	.14	-.22	.14	-.10	-.16	-.18	-.23	.29
EM'N LST	-.11	.13	.10	-.12	.11	-.29	-.36	.03
PH'L LST	.01	.22	-.05	-.35	-.14	.02	.09	.03
AGE AVE	-.30	-.02	.32	.08	.23	-.68	-.01	.01
GENDER AVE	.27	-.29	.00	-.05	.17	-.15	-.74	.05
ACT AVE	.32	-.13	.00	.36	-.02	.06	.24	.55
REL'P AVE	.26	-.10	.04	.14	.02	-.09	-.19	.08
FORCE AVE	.16	-.21	.06	.04	.11	-.19	-.12	.17
EM'N AVE	-.06	.24	.11	-.22	-.21	-.08	-.19	-.10
PH'L AVE	.14	-.37	-.19	.44	.19	-.26	.23	.07

	REL'P 1ST	FORCE 1ST	EM'N 1ST	PH'L 1ST	AGE LST	GENDER LST	ACT LST
AGE CV	.24	.10	-.21	.12	.01	.01	-.42
GENDER CV	-.19	-.26	.23	-.36	-.15	.22	-.19
ACT CV	.05	-.14	.17	-.13	-.18	-.05	.27
REL'P CV	.11	.24	-.30	.47	-.07	-.35	.39
FORCE CV	.05	.33	.00	.04	-.40	-.14	.05
AGE 1ST	.43	-.13	-.20	-.12	.26	.02	.03
GENDER 1ST	-.18	.17	-.39	.46	-.07	.09	.34
ACT 1ST	-.11	.17	-.08	.04	-.09	.08	.17
REL'P 1ST	1	.12	-.07	-.15	.03	-.22	-.11
FORCE 1ST	.12	1	-.41	.50	-.08	.01	-.07
EM'N 1ST	-.07	-.41	1	-.62	-.09	.09	-.16
PH'L 1ST	-.15	.50	-.62	1	.09	-.21	.26
AGE LST	.03	-.08	-.09	.09	1	.06	-.09
GENDER LST	-.22	.01	.09	-.21	.06	1	-.29
ACT LST	-.11	-.07	-.16	.26	-.09	-.29	1
REL'P LST	.70	.13	.07	-.04	.18	.06	-.28
FORCE LST	.17	.42	-.25	.09	.24	.13	-.21
EM'N LST	-.12	-.40	.85	-.49	-.26	.09	-.13
PH'L LST	-.22	.01	.09	-.21	.06	1	-.29
AGE AVE	-.26	-.04	.34	.05	-.56	.06	.25
GENDER AVE	.14	-.04	.30	-.21	-.07	-.41	-.44
ACT AVE	.02	.03	-.15	.20	-.22	-.24	.67
REL'P AVE	.05	.33	.00	.04	-.40	-.14	.05
FORCE AVE	.11	.75	-.31	.28	.14	.10	-.17
EM'N AVE	.09	-.52	.83	-.55	.01	-.04	-.12
PH'L AVE	-.09	.61	-.57	.78	.15	-.05	.13

	REL'P LST	FORCE LST	EM'N LST	PH'L LST	AGE AVE	GENDER AVE	ACT AVE
AGE CV	.32	.30	-.11	.01	-.24	.27	-.19
GENDER CV	-.18	-.22	.13	.22	-.02	-.19	-.13
ACT CV	-.01	.14	.10	-.05	.32	.00	.08
REL'P CV	.08	-.10	-.12	-.35	.08	-.05	.36
FORCE CV	-.12	-.16	.11	-.14	.23	.17	-.02
AGE 1ST	.24	-.18	-.29	.02	-.68	-.15	.06
GENDER 1ST	-.16	-.23	-.36	.09	-.01	-.74	.24
ACT 1ST	-.18	.29	.03	.08	.01	.05	.55
REL'P 1ST	.70	.17	-.12	-.22	-.26	.14	.02
FORCE 1ST	.13	.42	-.40	.01	-.04	-.04	.03
EM'N 1ST	.07	-.25	.85	.09	.34	.30	-.15
PH'L 1ST	-.04	.09	-.49	-.21	.05	-.21	.20
AGE LST	.18	.24	-.26	.06	-.56	-.07	-.22
GENDER LST	.06	.13	.09	1	.06	-.41	-.24
ACT LST	-.28	-.21	-.13	-.29	.25	-.44	.67
REL'P LST	1	.26	.15	.06	-.24	.15	.01
FORCE LST	.26	1	-.26	.13	-.09	.06	.01
EM'N LST	.15	-.26	1	.09	.36	.35	.06
PH'L LST	.06	.13	.09	1	.06	-.41	-.24
AGE AVE	-.24	-.09	.36	.06	1	-.05	.10
GENDER AVE	.15	.06	.35	-.41	-.05	1	-.18
ACT AVE	.01	.01	.06	-.24	.10	-.18	1
REL'P AVE	-.12	-.16	.11	-.14	.23	.17	-.02
FORCE AVE	.17	.83	-.41	.10	.01	.02	-.11
EM'N AVE	.10	-.28	.76	-.04	.14	.20	-.04
PH'L AVE	-.10	.43	-.52	-.05	.08	-.19	-.03

	REL'P AVE	FORCE AVE	EM'N AVE	PH'L AVE	GENDER REPL'N
AGE CV	-.10	.16	-.06	.14	-
GENDER CV	-.10	-.21	.24	-.51	-
ACT CV	-.04	.06	.11	-.19	-
REL'P CV	.22	.04	-.22	.44	-
FORCE CV	1	.13	-.21	.19	-
AGE 1ST	-.09	-.19	-.08	-.26	-
GENDER 1ST	-.19	-.12	-.19	.23	-
ACT 1ST	.08	.17	-.10	.07	-
REL'P 1ST	.05	.11	.09	-.09	-
FORCE 1ST	.33	.75	-.52	.61	-
EM'N 1ST	.00	-.31	.83	-.57	-
PH'L 1ST	.04	.28	-.55	.78	-
AGE LST	-.40	.14	.01	.15	-
GENDER LST	-.14	.10	-.04	-.05	-
ACT LST	.05	-.17	-.12	.13	-
REL'P LST	-.12	.17	.10	-.10	-
FORCE LST	-.16	.83	-.28	.43	-
EM'N LST	.11	-.41	.76	-.52	-
PH'L LST	-.14	.10	-.04	-.05	-
AGE AVE	.23	.01	.14	.08	-.14
GENDER AVE	.17	.02	.20	-.19	.38
ACT AVE	-.02	-.11	-.04	-.03	.38
REL'P AVE	1	.13	-.21	.19	.05
FORCE AVE	.13	1	-.49	.61	.06
EM'N AVE	-.21	-.49	1	-.60	-.47
PH'L AVE	.19	.61	-.60	1	.44