

THE AMERICAN ACADEMY OF CLINICAL SEXOLOGISTS
AT MAIMONIDES UNIVERSITY

A LINK BETWEEN THE EARLY ONSET OF PARAPHILIA
AND THE IMPACT OF COMPLEX TRAUMA

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DISSERTATION APPROVAL

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The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Pastoral Counseling.

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VITA

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ABSTRACT

This study examines the relationship between the early onset of paraphilia in adolescent males and the effects of complex trauma on those adolescents. The study was conducted in a maximum-security juvenile offender correction facility in the State of Florida. The sample consisted of ten adolescent males who had been adjudicated for committing serious sex offenses. Data was gathered on the type of paraphilic behavior, the age of onset, history of complex trauma and the sequelae of symptoms associated with complex trauma. Results of the study suggest that there is a link between specific types of trauma and certain paraphilic behaviors. Specifically, abandonment, emotional neglect, physical and emotional abuse were highly correlated to pedophilic behavior and exhibitionism. The loss of the paternal figure was more prevalent than the loss of the maternal figure in the study population.

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Chapter 1

Introduction

This study was undertaken because working with adolescents who have been incarcerated for various types of sex offenses also display many of the symptoms associated with traumatic stress. Children and adolescents who display paraphilic behavior and subsequently commit sex offenses are a growing concern in our society. Adolescents age 13 to 17 account for the vast majority of cases of rape and child molestation committed by minors. There are data that show that adolescents engage in paraphilic behaviors such as Pedophilia, Exhibitionism, Voyeurism, Fetishism and Frottage in numbers equal to and usually greater than adults. The etiology of the development of paraphilias is not fully understood and much more research in this area is needed. The development of any behavior may have its roots in genetic inheritance, hormonal processes and environmental factors.

It is estimated that approximately 35 percent of females and 20 percent of males in America are sexually abused by the age of 18. The consequences of sexual abuse in childhood include increased risk for teen pregnancy and substance abuse, depression, symptoms of Post-traumatic Stress Disorder and Complex Trauma, increased likelihood of contracting sexually transmitted diseases, including AIDS, and increased likelihood of later criminal behavior, including sexual aggression. The severity of this problem has caused it to be labeled as “a public health crisis”. On a nationwide basis almost one-half of the cases of child molestation are committed by juveniles under the age of 18 (Barbaree et al, 1993). The magnitude of the problem may be underestimated because juvenile sex offenders who are apprehended may represent only a proportion of juveniles who have committed such offenses. Only within the past 20 years has there been widespread acknowledgment that juveniles commit a substantial proportion of

sexual offenses. Nonetheless, many juvenile sexual offenses may not be reported because their sexually aggressive behavior may be labeled “youthful exploration”.

Many of these children are diagnosed with mental disorders, most commonly Conduct Disorder, Attention Deficit/Hyperactivity Disorder, Bipolar Disorder, Dysthymic Disorder and Mental Retardation. It is uncommon to see an adolescent diagnosed with Posttraumatic Stress Disorder (PTSD) or other anxiety disorders; yet a majority of the children I work with display symptoms associated with PTSD. These adolescents are not diagnosed with PTSD due in part because they often do not meet the criteria required to make a diagnosis of Posttraumatic Stress Disorder. However, they do display many of the constellation of symptoms described in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) under the heading Associated Features and Disorders (Luxenberg et al, 2001).

This study explored the possibility that this constellation of symptoms, which has been termed Complex Trauma (CT), has a direct association with the development of early paraphilic behaviors in boys (Herman, 1992).

Background for the Study

The study includes 10 juvenile offenders who were incarcerated at a residential treatment program in Florida. The center is classified as a maximum-security residential facility and houses 96 juvenile offenders on 6 units. Forty of those residents have non-sexual offenses and are housed separately. The juvenile sex offenders in this study were housed on all the units and all had been adjudicated juvenile sex offenders.

The program is a maximum level correctional treatment program for adolescent males, ages 13-21. Securicor New Century under Department of Juvenile Justice guidelines administers the program. Referrals comprise youth that have been adjudicated sex offenders and require the

services that the correctional system provides. Residential custody is typically recommended when youth have a history of aggression, repeated offending against multiple victims, total disregard for victim's objections, used force in commission of offenses, shown a broad range of sexual misconduct, shown an escalation in frequency and type of offending, a history of delinquency, a history of sexual victimizing, engaging in fire-setting and/or cruelty to animals, a lack of understanding why his sexual offenses were wrong, extreme denial, many personal problems (school failures, social limitations etc.), and/or come from a disorganized family or one with multiple problems (Perry & Orchard, 1992). The juveniles in the study share the above characteristics. They may also present with anxiety, depression, poor impulse control, parent-child conflict, conduct disorder and previous involvement with the legal system for charges ranging from petit theft to battery and assault. In addition, youth also present with previous problematic alcohol and drug involvement, for these residents a substance prevention and treatment program is required. The local school board operates an alternative school program on-site.

The program was begun five years ago and since its inception, one of the basic components has been family involvement. Parents whose sons are housed in the program are encouraged to make visits to see their sons and to participate in family conferences and therapy sessions. This is consistent with research indicating that residents in out-of-home treatment do better within the program when their families are involved and they have a definite goal of returning home (Allen & Pfeiffer, 1991). This is often difficult for family members because residents come from all over the state and traveling may be hard for their families. Still some do make the trip to the facility and have reportedly benefited from the therapy provided.

The residential treatment portion of the program functions primarily as a therapeutic community. The goal is to provide an environment that offers opportunity for growth and fosters feelings of safety and well being. The residents participate in twice-weekly psychotherapeutic process groups and bi-weekly individual therapy in order to help them learn to identify feelings, process events, gain control over their sexually abusive behaviors and to increase their pro-social interactions with peers and over their sexually abusive behaviors and to increase their pro-social interactions with peers and adults. In addition, daily psycho-educational groups are conducted by the residents to foster the growth and development of problem-solving skills, goal setting, self-esteem, values clarification, anger management, relationships, and sexual responsibility.

Further weekly groups are offered in the form of psycho-educational substance abuse groups. The psycho educational substance abuse group teaches residents about alcohol and other drug issues, the disease model of addiction, treatment options, relapse prevention and an overview of the process of addiction. Currently the Alcoholics Anonymous 12-Step program model is being utilized to give those residents who need to continue in recovery post-release a firm grounding in a long-term recovery program. These groups aid the residents in learning to identify and process events and feelings with regard to substance abuse, addiction issues and relapse prevention.

Family therapy is encouraged and is used to help the family to identify problematic areas within the system, to clarify abusive patterns, to work toward changing dysfunctional patterns of behavior, and to learn effective parenting skills and alternate styles of familial interaction. It is during these family therapy sessions that a more comprehensive, open and honest accounting of any past physical abuse, sexual abuse or severe neglect may be disclosed. In addition, a

consulting psychiatrist meets with the residents monthly to monitor any psychotropic medications prescribed.

Recreational therapy encourages growth and development in teamwork, sharing, skills, problem solving, fairness, and interpersonal relationships. There is an active Junior Reserve Officer Training Corp (JROTC) program in place and residents participate weekly in army styled maneuvers.

The treatment staff of this program consists of the Facility Administrator, an Assistant Facility Administrator, a Program Manager, two Unit Managers, six Unit Counselors, and five primary therapists. One corrections officer is assigned to every shift and is always available twenty-four hours per day, seven days a week.

Residents enter the program with a comprehensive psychological evaluation already completed by master or doctoral level clinicians. Development and simultaneous implementation of individualized treatment plans are the responsibility of primary therapists and unit counselors. The Assistant Facility Administrator coordinates all activities in the program; monitors program implementation and record keeping.

The overall objectives and goals of this specific residential program are to teach the residents that they are responsible for solving their problems and that successes are contingent on their behaviors. There is a level system in place which is primarily an account of how many negative log entries exist within a 30 day period for each resident. A resident receives a negative entry in the officer logbook for violations of rules. Residents follow a structured schedule of activities. Residents have the opportunity to earn level promotions through maintaining appropriate behaviors and by completing specific responsibilities. Privileges and level promotions are lost if residents display noncompliance, disrespect, or verbal aggression.

Residents receive Behavioral Reports (BR's) for routine infractions and they may also receive Disciplinary Reports (DR's) for serious infraction, for which they are given a formal hearing. Physical aggression is not tolerated. Residents advance through the level system by adhering to program requirements and completing individual treatment goals over a period of time, often weeks or months. Higher levels bring increased privileges, such as staying up later than curfew and canteen points. Overall, the program seeks to help the residents develop resources, skills and coping mechanisms that will enable them to lead more productive lives, and to successfully reintegrate them back into their communities and reunite them in a more functional family. This is accomplished through the modalities listed above and through the building of strong relationships between residents and staff.

The program takes approximately 12 to 14 months to complete successfully. There are specific criteria for successful discharge, such as consistent advancement within the level system, completing 80% of individualized treatment goals, exhibiting improved judgment, displaying increased self-control in emotional situations, and developing greater overall impulse control. Those residents in sex offender treatment who are released on or subsequent to their eighteenth birthday are screened for additional treatment services under the Jimmy Ryce Act.

Statement of Purpose

The area of investigation and purpose for this study was to gather data to determine if complex trauma and the early onset of paraphilic behaviors are present in the study population. Complex Trauma has not yet been included in the DSM as a mental disorder and therefore is not widely understood by clinicians in the field. There is a large body of literature that postulates several etiologies for the development of paraphilias in children and adolescents. In

particular the hierarchical-mediational confluence model developed by Neil Malamuth (Malamuth, 2003) and the seminal work of John Money on the psycho-endocrine disorders. Albert Bandura developed a social learning theory (Bandura, 1963), Erikson put forth a developmental model (Erikson, 1959) and Becker and Kaplan gave the field a multifactor model that has grown into a widely accepted and utilized treatment methodology in the treatment of adolescent sexual abusers (Becker and Kaplan, 1988). However, research and theory on the effects of complex trauma on this subject is extremely limited and the findings of this study should add to the body of knowledge on the etiology of paraphilic behavior and sexual abuse by children and adolescents.

Many of the juvenile sex offenders who commit sexually abusive offenses that are serious enough to require high-security residential treatment present with a substantial history criminogenic needs or risk factors which contribute to recidivism. These factors and behaviors include: antisocial and pro-criminal thinking; involvement with antisocial peers who support their criminal conduct; history of early involvement in deviant, antisocial behavior; poor problem solving and decision making skills; poor social and self management skills; involvement in and a product of a disruptive, abusive, neglectful family which includes lack of parental attention, caring, and supervision; lack of achievement in educational pursuits and history of substance abuse at an early age. Furthermore, they often present as impulsive and temperamentally aggressive, calloused and egocentric. These clients have not only committed sex offenses but also at times have a history of multiple non-sexual offenses. Typically in juvenile sex offender treatment there is a tendency to focus only on the sexual elements of the offenses. Treatment with these offenders must be geared towards the individual criminogenic needs, which contribute to reoffending. This study supports the premise that the abuse and

neglect that contribute to the development of complex trauma is a major factor in the development of sexually abusive paraphilic behavior. Researching treatment modalities that are geared to treating the incarcerated juvenile sex offender must take into account the person in his entirety and not only focus on the sexual offenses.

Clinical observations and anecdotal evidence suggest that there is a link between the early development of paraphilic behaviors that are sexually abusive and the chronic abuse and neglect that the adolescent sex offenders in the study have endured. It is intended that further research into this area will be undertaken as a result of the findings in this study.

Research question

This study sought to add to the current knowledge of the etiology of the early onset of paraphilic behaviors as it may be related to chronic traumatization in childhood and to survey current treatment methods to determine if complex traumatic victimization is being addressed with treatment modalities that specifically target trauma symptomology. This study addressed the following three research questions:

1. What paraphilias are present in the study population?
2. What types of traumatic stressors and/or events have the study population been exposed to?
3. What symptoms of Complex Trauma are present in the study population?

Assumptions

There is a dearth of information in literature that has directly addressed this question. It is vitally important to investigate an area of research that may have a significant and positive impact on the understanding of how sexually abusive behaviors and paraphilias may develop in children and subsequently become patterned in adults.

The problem is that in many cases these children have been misdiagnosed and consequently have been receiving inappropriate and sometimes harmful pharmacotherapy and counseling. There has been a good deal of research conducted on the effects of abusive experiences as an etiological factor (risk factor) in the development of sexually abusive, paraphilic behavior in children and adolescents. To date there is a paucity of empirical data on the effects of chronic abuse and neglect, complex trauma, as an etiological factor in the development of these deviant and/or sexually abusive behaviors.

The research for this study in this area has indicated that there is very little treatment for these children and adolescents that directly and effectively address their own victimization and trauma issues. The Safer Society 2002 Nationwide Survey of current trends and practices in sexual abuser treatment sheds light on the assumption that these adolescents and children may not be receiving the treatments that are specifically targeted to deal with chronic abuse and complex trauma (McGrath et al, 2002). The study surveyed over 2,200 sexual abuser treatment programs and reported on the response to questions in all areas of treatment for this population. Of particular interest to my study is the information on the treatment methods and targets that was published in the survey. The programs that provided responses for this area of investigation made it clear that the approach to treating this population continues to be a trickle-down usage of adult-based treatment models; this will be further elucidated in the literature review. Treatment programs that work with children and adolescents who present with an early onset of paraphilic behavior and sexually abusive offenses need to be better informed on the effects of Complex Trauma on their clients so that treatment modalities will have a better chance for a positive outcome.

Delimitations

This study did not evaluate all criminogenic risk factors or milieus for treatment.

Specifically the research was delimited to:

1. A structured correctional facility located in Okeechobee, Florida, providing therapy services to residents twenty years old and under as identified by the Department of Juvenile Justice.
2. Residents were screened for chronic abuse and neglect.
3. Residents were screened for sexually abusive paraphilic behaviors.
4. Ten residents were selected for the on-site study.

Limitations

The small sample size of the resident population limited generalization to adolescents in residential as well as those in non-residential sex offender treatment programs.

Operational Definitions

For the purposes of this study, operational definitions include adolescence, complex trauma, deviant sexual behavior, juvenile, paraphilia, Posttraumatic Stress Disorder, resilient and sexual abuse.

Adolescence-the transitional period between puberty and adulthood in human development, terminating legally when the age of majority is reached (Webster, 1991).

Complex Trauma-the dual problem of children's exposure to traumatic events and the impact of this exposure on immediate and long-term outcomes. Complex trauma exposure refers to children's experiences of multiple traumatic events that occur within the caregiving system – the social system that is supposed to be the source of safety and stability

in the child's life. Typically, complex trauma exposure refers to the simultaneous or sequential occurrences of child maltreatment; including emotional abuse and neglect, sexual abuse, physical abuse and witnessing domestic violence – that are chronic and begin in early childhood. Moreover, the initial traumatic experiences (e.g., parental neglect and emotional abuse) and the resulting emotional dysregulation, loss of a safe base, loss of direction and inability to detect or respond to danger cues, often lead to subsequent trauma exposure (e.g., physical and sexual abuse or community violence) (Cook, Blaustein, et al., 2003).

Deviant sexual behavior—a symptom of dysfunction in the individual either behavioral, psychological or biological that causes distress, disability or a significantly increased risk of suffering death, pain, disability or an important loss of freedom (Laws and O'Donohue, 1997).

Juvenile—a legal term referring, in most jurisdictions to individuals between the ages of 13 and 18. Juvenile status is a transition period with respect to the law (National Adolescent Perpetrator Network, 1988).

Paraphilia—recurrent, intense sexually arousing fantasies, sexual urges, or behaviors generally involving 1) nonhuman objects, 2) the suffering or humiliation of oneself or one's partner, or 3) children or other nonconsenting persons that occur over a period of at least 6 months (criterion A). For some individuals' paraphilic fantasies or stimuli are obligatory for erotic arousal and are always included in sexual activity. In other cases, the paraphilic preferences occur only episodically (e.g., perhaps during periods of stress), whereas at other times the person is able to function sexually without paraphilic fantasies or stimuli. For pedophilia, Voyeurism, Exhibitionism and Frotteurism, the diagnosis is made if the person

has acted on these urges or the urges or sexual fantasies cause marked distress or interpersonal difficulty. For Sexual Sadism, the diagnosis is made if the person has acted on these urges with a nonconsenting person or the urges, sexual fantasies or behaviors cause marked distress or interpersonal difficulty. For the remaining paraphilias, the diagnosis is made if the behavior, sexual urges or fantasies cause clinically significant distress or impairment in social, occupational or other important areas of functioning (Criterion B).

Exhibitionism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges or behaviors involving the exposure of one's genitals to an unsuspecting stranger.
- B. The person has acted on these sexual urges, or the sexual urges or fantasies cause marked distress or interpersonal difficulty.

Fetishism

Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges or behaviors involving the use of nonliving objects (e.g., female undergarments).

- A. The fantasies, sexual urges, or behaviors cause clinically significant distress or impairment in social, occupational or other important areas of functioning.
- B. The fetish objects are not limited to articles of female clothing used in cross-dressing (as in Transvestic Fetishism) or devices designed for the purpose of tactile stimulation (e.g., a vibrator).

Frotteurism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing

Fantasies, sexual urges or behaviors involving touching and rubbing against a nonconsenting person.

- B. The person has acted on these sexual urges, or the sexual urges or fantasies cause marked distress or interpersonal difficulty.

Pedophilia

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges or behaviors involving sexual activity with a prepubescent child or children (generally age 13 years or younger).
- B. The person has acted on these sexual urges, or the sexual urges or fantasies cause marked distress or interpersonal difficulty.
- C. The person is at least 16 years and at least 5 years older than the child or children in criterion A (For the purposes of this study age 16 or younger will constitute the criteria).

Note: Do not include an individual in late adolescence involved in an ongoing Sexual relationship with a 12- or 13-year old.

Sexual Masochism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges or behaviors involving the act (real, not simulated) of being humiliated, beaten, bound or otherwise made to suffer.
- B. The fantasies, sexual urges or behaviors cause clinically significant distress or impairment in social, occupational or other important areas of functioning.

Sexual Sadism

- A. Over a period off at least 6 months, recurrent, intense sexually arousing

fantasies, sexual urges or behaviors involving acts (real, not simulated) in which the psychological or physical suffering (including humiliation) of the victim is sexually exciting to the person.

- B. The person has acted on these sexual urges with a nonconsenting person, or the sexual urges or fantasies cause marked distress or interpersonal difficulty.

Voyeurism

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges or behaviors involving the act of observing an unsuspecting person who is naked, in the process of disrobing or engaging in sexual activity.
- B. The person has acted on these sexual urges, or the sexual urges or fantasies cause marked distress or interpersonal difficulty.

Posttraumatic Stress Disorder

- A. The person has been exposed to a traumatic event in which both of the following were present.
 - (1) the person experience, witnessed or was confronted with an event or events that involved the actual or threatened death or serious injury, or a threat to the physical integrity of self or others.
 - (2) the person's response involved intense fear, helplessness or horror.

Note: In children, this may be expressed instead by disorganized or agitated behavior.

- B. The traumatic event is persistently reexperienced in one (or more) of the following ways:

- (1) recurrent and intrusive distressing recollections of the event, including images, thoughts or perceptions. **Note:** In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.
- (2) recurrent distressing dreams of the event. **Note:** In children, there may be frightening dreams without recognizable content.
- (3) acting or feeling as if the traumatic event were reoccurring (includes a sense of reliving the experience, illusions, hallucinations and dissociative flashback episodes, including those that occur on awakening or when intoxicated. **Note:** In young children, trauma-specific reenactment may occur.
- (4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.
- (5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

- (1) efforts to avoid thoughts, feelings or conversations associated with the trauma.
- (2) efforts to avoid activities, places or people that arouse recollections of the trauma.
- (3) inability to recall an important aspect of the trauma.
- (4) markedly diminished interest or participation in significant activities.

- (5) feeling of detachment or estrangement from others.
- (6) restricted range of affect (e.g., unable to have loving feelings).
- (7) sense of a foreshortened future (e. g., does not expect to have a career, marriage, children or a normal life span).

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

- (1) difficulty falling or staying asleep.
- (2) irritability or outbursts of anger.
- (3) difficulty concentrating.
- (4) hypervigilance
- (5) exaggerated startle response.

E. Duration of the disturbance(symptoms in Criteria B, C, and D) is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in social, occupational or other important areas of functioning.

Specify if:

Acute: if duration of symptoms is less than 3 months.

Chronic: if duration of symptoms is 3 months or more.

Specify if:

With delayed onset: if onset of symptoms is at least 6 months after the stressor. (DSM-TR-IV, 2000).

Resilient-1. Marked by the ability to recover readily, as from misfortune.

Capable of returning to an original shape or position, as after having been compressed

(Perry, 1997)

Sexual abuse-1. the maltreatment of one or more people by one or more individuals involving sexual behavior, sexual practices or sexual harassment; 2. any unwanted or uninvited sexual act; 3. sexual involvement or contact with a person under the age of consent by an older person; 4. non-consenting sexual behavior between two or more persons; 5. deceptive sexual acts or practices; 6. sexual contact between two or more people which is determined to be injurious or harmful to one or more of the individuals involved; 7. sexual behavior, contact or experiences an individual encounters which are determined to be harmful or destructive to his or her physical and/or psychological well being. (Freeman-Longo and Blanchard, 1998).

Illegal sexual abuse-the act of engaging in sexual behaviors, activities or events that are abusive and prohibited by state and/or federal law.

Legal sexual abuse-the act of engaging in sexual behaviors, activities or events that are not violations of state and/or federal laws, but which are determined to be hurtful and/or harmful to an individual resulting in the person being victimized

Need for the Study

In conducting a literature review, no studies that dealt exclusively with the early onset of paraphilic behavior and complex trauma was found. There was little, if any, information on treatments for Complex Trauma and Posttraumatic Stress Disorder in juvenile correctional facilities. Consequently, a comprehensive understanding of the current nature of juvenile residential correctional therapy was at best fragmented and based on relatively small samples

or anecdotal experience. With this paucity of information on the relationship between complex trauma and sexually abusive paraphilic behavior available to clinicians and program administrators, more studies are needed.

Chapter 2

Literature Review

This chapter will present a review of the literature relevant to my research in several areas. The sections in the literature review will paraphilic behaviors in childhood and adolescent males, trauma spectrum disorders, and the co-morbid mental disorders that are more commonly associated with the development of paraphilic behaviors, and current treatment methodologies and the implications for a change in the approaches to the psychotherapeutic and pharmacological treatment of this population of children and adolescents.

The first section will deal with the characteristics of juvenile sex offenders and the presentation of paraphilic behaviors in children and adolescents that are considered by law to be criminal offenses. The paraphilias have been listed and defined according to the DSM-TR-IV in the preceding chapter. This section will examine the types and prevalence of sexually abusive behaviors committed by juveniles and a comparison to adult sexual offending.

Section two will address the history of trauma and the resulting stress disorders. It will examine Posttraumatic Stress Disorder and Complex Trauma and how they differ. It will address brain neurobiology to establish an understanding of the effects of traumatic events and chronic abuse on emotions and behavior. It will examine the possible etiological factors that these disorders may contribute to the development of early onset of paraphilic behavior. Several other theories of etiology will be briefly discussed in relation to trauma as a contributing factor for the development of paraphilias that lead to sexual abusive behavior

against others. The section will also discuss the mental disorders that are frequently diagnosed in children and adolescents, who present with sexually abusive behaviors and how many of the symptoms used to make a diagnosis of one of these disorders, may in fact be indicative of Complex Trauma.

The third section will survey and examine the approaches to treating children and adolescents who present with paraphilic behaviors that are currently in use with this population. The research will be concentrated in the area of Juvenile Sex Offenders (JSO) due to the seriousness of the offenses committed and the data available for study.

Characteristics of Adolescents Who Commit Paraphilic Sexual Offenses

There is no single type of juvenile who engages in paraphilic behavior and there is no single type who commits a sexual offense (Bourke and Donohue, 1996; Knight and Prentky, 1993). They differ according to victim and offense characteristics and a wide range of other variables, such as types of offending behaviors, whether or not there is a history of child maltreatment, the degree of sexual knowledge and experiences, academic and cognitive functioning, and mental health issues (Knight and Prentky, 1993; Weinrott, 1996). Although research is limited, available studies suggest that juveniles who commit sex offenses and juveniles who commit other types of offenses share many characteristics. Most recently, a study of chronic delinquents found no differences on any of the measured variables between 50 sex offenders and 106 juveniles arrested for violent but nonsexual offenses (Miner and Crimmins, 1995). Sexually abusive behaviors range from non-contact offenses (such as voyeurism and exhibitionism) to penetrative acts such as sexual battery or sexually sadistic acts. Offense characteristics include factors such as the age and sex of the victim, the relationship between

victim and offender, and the degree of coercion and violence used. Sexually aggressive acts also differ in terms of premeditation and the intended effect on the victim.

Juvenile sex offenders frequently engage in nonsexual criminal and antisocial behavior (Fehrenbach et al., 1986; Ryan et al., 1996). A national survey found that most of the juveniles who disclosed sexually assaultive behavior had previously committed a nonsexual aggravated assault (Weinrott, 1996). Significantly, juvenile sex offenders who are released from residential treatment programs are at much greater risk of committing further nonsexual offenses than they are of committing further sexually aggressive acts. Treatment outcome research has demonstrated that most children show significantly lower sexual behavior problems after short-term outpatient treatment (12 – 32 weeks) and that the recidivism rates for children aged 6 to 12 were approximately 15% two years after treatment (Bonner et al., 1999).

Juvenile sex offenders also differ from each other in terms of their childhood histories of abuse and neglect. A history of childhood sexual abuse has been associated with juvenile sex offending (Fehrenbach et al., 1986; Kahn and Chambers, 1991; Kobayashi et al., 1995). Childhood experiences of being physically abused, being neglected, and witnessing family violence also have been independently associated with sexual violence in juvenile offenders (Kobayashi et al., 1995; Ryan et al., 1996).

There is often a significant history of child maltreatment including neglect and physical and sexual abuse in the early lives of sex offenders who have demonstrated paraphilic behaviors (Knight and Prentky, 1993). Sexual behavior is often affected by a history of sexual victimization. Children exposed to sexual abuse and deviant sexual experiences are at risk for early erotization and precocious sexualization. There is some evidence that boys are more apt to be sexually aroused at the time of sexual victimization and to later exhibit sexual behaviors

than girls are (Friedrich, 1995; McClellan et al., 1996). That thousands of children are sexually victimized and subsequently present with distressing psychological symptoms every year is not in doubt. However, correctly diagnosing and formulating effective treatment plans continues to be a troubling area for clinicians dealing with troubled youth.

Childhood abuse may also result in deficits in empathy and cognitive distortions that are commonly found in juvenile sexual offenders. Knight and Prentky (1993) pointed out that some factors observed in abused children (e.g., reduced empathy, inability to recognize appropriate emotions in others, and inability to take another person's perspective) may have relevance for juvenile sex offenders who have been maltreated. Similarly, there is strong evidence that cognitive distortions, such as blaming the victim, are associated with sexual reoffending in juveniles (Kahn and Chambers, 1991; Schram, Malloy, and Rowe, 1991).

The abusive experiences of juvenile sex offenders, however, have not consistently been found to differ significantly from those of other juvenile offenders (Lewis, Shankok, and Pincus, 1979). Nonetheless, it appears that the juvenile sexual offenders have higher rates of incidents of abuse and neglect and related mental health issues than other types of juvenile offenders. There does not appear to be a simple cause and effect relationship between child maltreatment and later juvenile sex offending behavior and it appears that the role of child maltreatment in the etiology of sex offending is quite complex (Prentky et al., 2000).

Juvenile sexual offenders also show a variety of interpersonal styles and social environments in their development. Family factors such as violence, disorganization, and instability have been found to be common in the histories of juveniles who engage in sexually abusive behavior (Bagley and Shewchuk-Dann, 1991; Miner, Siekert, and Ackland, 1997; Morenz and Becker, 1995). Various studies (Kahn and Chambers, 1991; Fehrenbach et al.,

1986; Smith and Israel, 1987) suggest that many juvenile sex offenders have experienced physical and/or emotional separations from one or both of their parents, and attachment disorders appear to be common in both juvenile and adult sexual offenders.

Research repeatedly documents that juvenile sexual offenders have significant deficits in social competence (Becker, 1990; Knight and Prentky, 1993). Inadequate social skills, poor peer relationships, and social isolation are among the difficulties identified in these juveniles (Fehrenbach et al., 1986; Miner and Crimmins, 1995). For this reason, social skills are an important part of both residential and outpatient treatment programs.

Additionally, juvenile sexual offenders show a great deal of variability in their sexual histories and beliefs. Research suggests that adolescent sex offenders generally report having had previous consenting sexual experiences (Becker, Kaplan, Cunningham-Rathner, and Kavoussi, 1986; Groth et al, 1982; Ryan et al., 1996). In Becker's study it was reported that of the adolescents who had been arrested for a sexual offense, 82% had engaged in nondeviant, nongenital sexual behavior and 58% had engaged in nondeviant, genital sexual behaviors. Thus, for the majority, deviant behavior did not constitute their first or only sexual experience (Becker et al., 1986).

Research also suggests that sometimes the reported sexual histories of juvenile sex offenders exceed those of juveniles who have not committed sex offenses (Knight and Prentky, 1993). Certainly, it is possible that many juvenile sexual offenders manifest precocious sexualization and began sexual activity at a younger age than their peers. It also appears likely that many juvenile sexual offenders have distorted attitudes and views regarding sex and sexuality. A study of 1,600 juvenile sex offenders from 30 States (Ryan et al., 1996) found that only about one-third of the juveniles perceived sex as a way to demonstrate love or caring for

another person; others perceived sex as a way to feel power and control (23.5 percent), to dissipate anger (9.4 percent), or to hurt, degrade, or punish (8.4 percent). Although many preadolescents commit sexual offenses or engage in aggressive sexual behavior, this is usually more related to early trauma than deviant arousal. There appears to be a direct correlation between the age of the offender and the degree of deviant sexual arousal experienced at the time of the offense.

Incidence of Sexually Abusive/Paraphilic Behavior in Children and Adolescents

Our nation and its institutions that attempt to deal with children and adolescents who display paraphilic behavior and subsequently commit sex offenses are faced with a myriad of problems that are a major problem for society. Sexually abusive acts committed by children and adolescents have been of growing concern to professionals in many fields over the last decade. In 1995, youth were involved in 15 percent of all forcible rapes that resulted in arrest; approximately 18 adolescents per 100,000 (ages 10 to 17) were arrested for Forcible Rape in 1995. Approximately 16,100 adolescents were arrested for sexual offenses in 1995 (excluding Rape and Prostitution). This is approximately 3 times the number of youths arrested for Forcible Rape (Sickmund et al, 1997).

This study is primarily concerned with the paraphilias that have the potential to harm others in sexually abusive ways; these are the paraphilic behaviors that are illegal. Robert Freeman-Longo has proposed a continuum of sexual behaviors that ranges from consenting sexual activities to Rape/Murder (Freeman-Longo, 1998). For the purposes of this dissertation Freeman-Longo's construct of sexual behavior will be utilized to demonstrate where our study population should be placed on an ascending scale of abusive and/or criminal paraphilic behavior.

A CONTINUUM OF SEXUAL BEHAVIORS

Consenting Sexual activities	Paraphilic behavior that doesn't harm others	Sexual harassment	Prostitution	Paraphilic behavior that harms others	Sex crimes/ sexual assault	Rape murder
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When addressing consenting sexual behavior in adults there are generally no issues of illegality to be concerned with, regardless of the nature of the sexual activity. One major exception to this is prostitution, which is illegal in nearly every state. Another exception is sexual harassment at places of employment, religious activity and other social events. Individuals, including children and adolescents, can face criminal and civil sanctions for this type of behavior. However, there are legal sexual practices that are potentially dangerous and harmful. Autoerotic sexual activity can accidentally cause serious injury or even death. The practice known as Sexbytes, cutting the skin of sex partners and licking the blood can lead to infection and the transmission of disease (Sexbytes, 1996).

Not all paraphilic behavior is illegal or harmful to one's self or others. Fetishism (i.e., sexual arousal to shoes, articles of clothing or rubber) and Transvestic Fetishism (i.e., males dressing as females) are examples of benign paraphilic behaviors. These types of paraphilias will not be included in the study unless they are co-morbid with other more harmful paraphilias.

When juveniles engage in sexual activity, even with a mutually consenting partner, the juvenile can be guilty of committing an illegal sexual act. The age of consent, the age at which a person is considered competent to consent to marriage or sexual intercourse (Webster, 1991),

varies widely from state to state. In *Juvenile Sexual Offending*, Gail Ryan offers a more comprehensive definition of consent. She defines consent as (1) understanding what is proposed without confusion or trickery, (2) knowing the standard for the behavior in the culture, (3) awareness of possible consequences including stigma, punishment, pain and disease and (4) respect for agreement or disagreement without repercussions. Adolescents and children often have difficulty fully distinguishing consent from compliance and/or cooperation (Ryan and Lane, 1997).

Iowa, Missouri and South Carolina allow individuals to give consent at age 14; this is the lowest age of consent in the United States. The remaining states allow consent to be given at ages 15 to 18. Children and adolescents are at risk for committing sexual offenses due solely to the fact that the age of the partner is below the legal age of consent.

This can be a troubling area for clinicians as well as law enforcement professionals since the age that one can engage in sexual activity, including intercourse, is as low as 14 in one state and the same act can be a felony in another state. Careful assessment of a juvenile's offense should be made to ensure that the criteria for a sexually abusive paraphilia are met and that the crime is not a status offense.

Next on Freeman-Longo's continuum are the paraphilias that are considered illegal or sexual crimes that are more in the category of nuisance offenses. These would include Telephone Scatalogia, Exhibitionism and Voyeurism. Although it could be argued that these paraphilic offenses can cause harm to unsuspecting victims, they are not considered to cause physical damage to the victim. However, psychological and emotional distress can reasonably be expected to follow being victimized by a voyeur or an exhibitionist.

There are data that show that adolescents engage in paraphilias such as Pedophilia, Exhibitionism, Voyeurism, Fetishism and Frottage in numbers equal to and usually greater than adults. According to Able adolescents engage in Exhibitionism and Voyeurism with frequency rates that are actually higher than those for adult offenders. The frequency rates for Voyeurism and Exhibitionism in adolescents was 13.9% and 12.9% and 13.6% respectively for adults (Able, 1993). These percentages are strikingly similar and may suggest that the same etiological factors are present in both children and adolescents and adults who are diagnosed with these paraphilias. Sex crimes constitute the final category on the Freeman-Longo continuum. These paraphilic behaviors are the most serious of the sexually abusive paraphilias and as such warrant the most attention by researchers and clinicians. These behaviors include child sexual abuse that results in physical harm and sadistic rape. These acts would fall under the paraphilia, Sexual Sadism. Kraft-Ebing classified sexual sadism in 1886 and included the following types of sadistic behavior: (1) lust-murder, (2) mutilation of corpses, (3) injury to females, (4) defilement of women, (5) other kinds of assaults on women such as cutting the victim's hair, (6) ideal sadism or sadistic fantasies alone without acts, (7) sadism with other objects, for example whipping boys and (8) sadistic acts with animals (Kraft-Ebing, 1965).

Male children and adolescents are committing a notable and alarming percentage of sex crimes and they are doing so at an ever-decreasing age range. Gray and Pithers stated in the October 1997 volume of *Sexual Abuse: A Journal of Research and Treatment*, that sexual abuse perpetrated by children under 14 years of age has increased 300% in the last ten Years (Gray and Pithers, 1997). The department of Social and Rehabilitation Services in Vermont reported that 37.8% of juveniles responsible for child abuse cases were between six and twelve years old (United States General Accounting Office, 1996). In a 1979 study that evaluated 17

adolescents convicted of sexual assault, it was found that the average age of onset of the sexual deviance was 6 years (Lewis et al., 1979). Smith and Monastersky found that adolescents commit a wide variety of paraphilic behaviors including rape, child molestation, voyeurism, exhibitionism, obscene phone calls, transvestism and fetishism beginning as early as 10 years of age (Smith and Monastersky, 1986). Studies conducted by others found that the age of onset of deviant sexual behavior ranged from 13 to 15.5 years (Awad, Saunders and Levene, 1979; Becker, Cunningham-Rathner and Kaplan, 1986; Smets and Cebula, 1987).

It has been estimated that one-fifth of all rapes and almost one-half of all cases of child molestation were committed by juveniles (Sickmund et al, 1997). Adolescents age 13 to 17 account for the vast majority of cases of rape and child molestation committed by minors (Davis and Leitenberg, 1987. According to Abel the average male adolescent sex offender will commit 380 sex crimes during his lifetime if no treatment is provided (Abel et al., 1984).

These figures and the cost in human suffering that they represent should serve to encourage clinicians and researchers to continue to search for and development effective treatment methods for these offenders.

Historical Research into Traumatic Antecedents

During the latter decades of the nineteenth century European, especially French and German, physicians began to seriously study the disorder that had been known for centuries as hysteria. The accepted belief of the time was that hysteria was a disease of incoherent and incomprehensible symptoms most commonly found in women and originating in the uterus, thus the name hysteria (Herman, 1992). The father of the study of hysteria was the French neurologist Jean-Martin Charcot who practiced and gave lectures at the Salpetriere, Paris' asylum for the poor and insane. Notable doctors such as Sigmund Freud, William James and

Pierre Janet were among those who traveled to Paris to attend Charcot's lectures. Charcot called hysteria "the Great Neurosis" and he became its first taxonomist by careful observation, description and classification of the disorder. Charcot was most interested in the symptoms of hysteria that resembled neurological damage and impairment such as sensory losses, convulsions, motor paralyzes and amnesia. He proved that these symptoms were psychological in nature by artificially inducing and relieving the symptoms through hypnosis.

Sigmund Freud and Pierre Janet both advanced Charcot's work with hysterical patients by investing a tremendous amount of time talking to the individuals and forming the hypothesis that these people's hysteria was due to psychological trauma. Both Freud and Janet hypothesized that the somatic symptoms presented by hysterical patients were masked representations of extremely stressful events that had been cast out of memory. Janet described his hysterical patients as being ruled by subconscious fixed ideas.

Janet believed that unbearable emotional reactions to trauma caused the hysterical symptoms in people, he called this phenomenon, dissociation. During the 1890s Janet labored meticulously with his patients to work back through more recent traumas to the earlier childhood traumatic events. He stated "By removing the superficial layer of delusions, I favored the appearance of old and tenacious fixed ideas which dwelt still at the bottom of her mind. The latter disappeared in turn, thus bringing forth a great improvement"(Janet, 1891).

Freud and his associate Joseph Breuer termed these unbearable emotional reactions to traumatic events "double consciousness" (Herman, 1992). They believed that these stressors caused an altered state of consciousness that in turn created the somatic, hysterical symptoms. Breuer and Freud postulated that hysterics suffered from reminiscences or memories of early childhood psychological and physical assault.

This led them to explore the adult and childhood lives of these women; what they discovered about the histories of these women shocked them. They repeatedly were told of the incest, physical abuse and sexual assault that these patients had suffered during their childhoods.

Freud, in 1896, declared that he had discovered the reasons for the development of hysteria in women. In *The Aetiology of Hysteria*, published that same year, he stated the following, “I therefore put forward the thesis that at the bottom of every case of hysteria there are *one or more occurrences of premature sexual experience*, occurrences which belong to the earliest years of childhood, but which can be reproduced through the work of psycho-analysis in spite of the intervening decades. I believe that this is an important finding, the discovery of a *caput Nili* in neuropathology” (Freud, 1896). In essence Freud had given the world an avenue to take towards discovering how to relieve the suffering of terribly traumatized women; instead the publication of his paper was the last to be undertaken in this field for almost a century.

If the stories his patients related to him were true, Freud would have had to accept the premise that exploitive and assaultive acts against children were commonplace in all levels of society. For Freud this idea proved to be too incredible and potentially damaging to his practice in Vienna; for he had discovered that this horrible abuse existed within the families of the respected upper class. He would not be allowed to promulgate such a damning theory without seriously damaging his reputation and career. He abandoned the sexual and physical trauma as a possible etiological factor in the development of hysteria (Bonaparte, et al) and began to develop his psychoanalytic theory. Freud continued to accept that these women had been sexually exploited in childhood, but he shifted the focus to the investigation of the patient’s own feelings of erotic stimulation as a result of the sexual abuse. Eventually Freud repudiated his earlier thesis and stated in his autobiography in 1925, “I was at last obliged to recognize

that these scenes of seduction had never taken place, and that they were only fantasies which my patients had made up” (Freud, 1925).

The study of psychological trauma and the practice of trying to alleviate its debilitating symptoms ended and the disease of hysteria was forgotten. It is unimaginably unfortunate for the millions of people, women and men, who have suffered and died as a result of this abandonment of clinical research in favor of a more socially and patriarchally acceptable theory to the members of the Western European culture to which Freud and his contemporaries belonged.

War Neurosis/Hysterical Disorders in Men

As stated above the study of psychological trauma, Hysteria was largely abandoned after Freud ceased his work in the area. However, the world was to be faced with another and seemingly more serious confrontation with the devastating effects of psychologically traumatic stress. World War I caused the deaths of over 8 million men and produced millions of other victims; many of these other wounded men were suffering psychologically. One estimate of British losses stated that 40% of the casualties were due to mental breakdown. Soldiers were subjected to constant threat of terrible death. They witnessed the mutilation and extinction of their comrades and were helpless in being able to protect themselves from similar fates. These once strong and resilient men began to act in the same manner as the hysterical women studied by Janet and Freud. They wept, screamed, became mute and froze. Amnesia was common and they lost their ability to feel emotion for themselves and others (Showalter, 1985).

This condition was ascribed to the constant artillery bombardments that the average soldier in the trenches was subjected to. It was called shell shock for this reason and the name was in use until World War II. As in the case of the women studied by Freud, the actual etiology of

these soldiers disability was ignored and another less sympathetic cause for the shell shock was put forth. British psychiatrist, Lewis Yelland published a paper in 1918 in which he declared that these soldiers suffered merely from laziness and cowardice. He based his treatment on shaming, threats and punishment; much the same type of treatment that hysterical women were subjected to (Showalter, 1985). As in the case of Hysteria being discounted and forgotten in women, the medical establishment ignored the thousands of men suffering egregiously from the trauma of their war experiences soon after the war.

A young American psychiatrist, Abram Kardiner recently returned from a year long personal psychoanalysis with Sigmund Freud began practicing psychoanalysis in New York and working in the psychiatric clinic of the Veterans' Bureau. Kardiner was able to relate to the men suffering from war neurosis due to his own childhood of trauma that included his mother's untimely death, poverty, neglect, hunger and domestic violence. He worked with these men and helped many but was unable to develop a theory of war trauma that worked within the framework of psychoanalytic theory and he gave up the effort until 1939 (Kardiner, 1977).

During the intervening period Kardiner had become interested in anthropology and co-authored an anthropological text, *The Individual and His Society*, with Cora du Bois. It was this intellectual grounding in anthropological conceptualization that allowed Kardiner to recognize the impact of social reality and enabled him to understand psychological trauma. In 1941 he published a comprehensive clinical and theoretical study, *The Neurosis of War* (Kardiner, 1947). In it he deplored the lack of continuous professional interest in the study of war neurosis. The theory and clinical outlines of traumatic syndromes as they are known today are based on Kardiner's pioneering work with the shell-shocked veterans of World War I.

The Second World War brought about a revival of medical interest in war neurosis, now being called combat fatigue. Large numbers of men were once again becoming casualties of psychological trauma and unfit for duty on the lines. It was during this period that psychiatrists began to remove the stigma of the stress related debilitations experienced by these soldiers. The medical professionals began to realize that any man might become psychologically wounded if he were exposed to severe traumatic events of the type experienced in combat. In 1947 Kardiner revised his theory in collaboration with a psychiatrist who had considerable experience treating soldiers with combat fatigue who were still in the theater of war. Herbert Spiegel contributed to the theory by suggesting that the men who had the strongest ties to their leader and fighting unit were the most resilient in the face of overwhelming terror (Grinker and Spiegel, 1945).

The treatments that psychiatrists utilized to alleviate the effects of combat induced trauma included hypnosis and what was then termed narcosynthesis, the use of sodium amytal. Both of these techniques were used to induce an altered state of consciousness that would hopefully provide a cathartic reliving of the traumatic memories, which could then be processed and relieved. These methods did prove useful for the rapid reduction of stress-induced symptoms in a large number of troops who had succumbed to acute stress. Up to 80 percent of these soldiers were returned to some form of duty within one week and 30 percent were reassigned to combat (Ellis, 1980). However, little was done in the way of longitudinal research with the soldiers of the Second World War on the lasting effects of the treatment or the traumatic stress itself. Grinker and Spiegel understood that treatment would not be successful if the memories retrieved under hypnosis were not integrated into the soldier's consciousness. They stated that the psychological effects of combat "is not like writing on a slate that can be erased, leaving

the slate clean as it was before. Combat leaves a lasting impression on men's minds, changing them as radically as any crucial experience through which they live" (Grinker and Spiegel, 1945). It was not until the 1970s and the veterans of the Vietnam War did the study of war neurosis and traumatic stress become an area of interest once again.

Posttraumatic Stress Disorder, Sexual and Physical Abuse

Depictions of the effects of PTSD are found in the world's literature as far back as the myth of *Gilgamesh*, the Greek tragedies, Shakespeare's *MacBeth* and numerous other works. The medical community did not officially sanction the deleterious effects of Posttraumatic Stress Disorder that can result from the childhood sexual abuse that Freud discovered or the horrendous psychological damage done by war neurosis until 1980. It was only after Vietnam veterans and mental health professionals made a major political effort that a formal diagnosis of Posttraumatic Stress Disorder was included into the *Diagnostic and Statistical Manual* (van der Kolk and McFarlane, 1996). From this point forward men and women who have suffered traumatic events and subsequently developed PTSD would no longer be stigmatized and shamed by their emotional symptoms.

The women's liberation movement of the 1970s brought the subject of sexual victimization and exploitation of women and children into the open. Freud's declaration in 1896 that he had discovered the reason for the development of Hysteria in women was being validated by thousands of women who were participating in consciousness-raising groups through out the country. Betty Friedan called the sexual abuse of women and children the "problem without a name" (Friedan, 1963). In 1975 the National Center of Mental Health created a center for the study of rape. The majority of the researchers were women and the method of investigation paralleled the studies of Hysteria conducted by Freud and Janet. Extensive and intimate

interviews yielded a tremendous amount of information on breadth and depth of the incidence of childhood sexual abuse.

An epidemiological survey conducted in 1980 by sociologist and human rights activist Diana Russell detailed the domestic violence and sexual exploitation experiences of 900 women, chosen at random. The outcome of the study confirmed that one woman in four had been sexually abused in childhood (Russell, 1984). Other studies also show that childhood sexual abuse is a prevalent form of child maltreatment that frequently results in severe psychological disturbances including PTSD. These studies have demonstrated that the symptoms of PTSD can be enormously disabling for sexually abused children and that these symptoms often persist into adulthood (McLeer et al., 1998; Rowan and Foy, 1993; Wolfe and Birt, 1995). In the United States at least 5 million children are victims of and/or witnesses to physical abuse, domestic violence or community violence (Perry, 1994a) and approximately 1 out of 3 women and 1 out of 7 men will be sexually victimized before 18 years of age. The great majority of the victims of male abusers are female but adolescent sex offenders commit most of their assaults against boys (Davis and Leitenberg, 1987).

In a large, nationally representative study conducted in 1995, 60% of the men and 50% of the women surveyed reported that they had experienced at least one a traumatic event during their lifetime (Kessler et al., 1995). Yet other research has found that only 5% of the men and 10% of the women could be diagnosed with chronic Posttraumatic Stress Disorder (Zlotnick et al., 1999). These data demonstrate that traumatic events are common in the lives of many individuals, but only a few develop chronic, pathological reactions of mind and body to these catastrophic life events that can be diagnosed as Posttraumatic Stress Disorder. It is possible that individuals vary in the degrees to which stress triggers neurobiological perturbations of

their threat response systems that may result in a differential capacity to cope with traumatic experiences (Morgan et al., 2001).

Posttraumatic Stress Disorder as defined in *The Diagnostic and Statistical Manual of Mental Disorder-IV-TR* (DSM-IV-TR) addresses a constellation of stress related symptoms that are generally associated with the effects of the experiences of war, violent personal assault, being taken hostage or kidnapped, natural or manmade disasters, severe automobile accidents or witnessing the violent death or dismemberment of others. Symptoms may also develop due to the person learning about the violent assault, death or injury of family or friends. These are generally single event stressors and the criterion to make a diagnosis of PTSD is based on this type of stressor (See Definitions). These symptoms are not always present to a degree necessary to make a diagnosis of PTSD in children and adolescents who have, never the less, been traumatized by chronic abuse and/or neglect. This situation can lead to misdiagnosis and the application of treatment methods that are not optimally effective. However, the underlying neurobiological affects of single event stressors and chronic traumatic stressors is similar and a basic knowledge of the effects of trauma and neglect on the brain is essential if one is to grasp the significance of trauma as a contributor to the development of paraphilic behavior in children and adolescents.

Neurobiology of The Brain and the Effects of Trauma

Bruce D. Perry, M.D., Ph.D. is one of the world's foremost scientists studying and writing on the impact of trauma and abuse on the human brain. He states in *Incubated in Terror* the following that aptly describes how the human brain develops in an environment dominated by violence:

Approximately 250,000 years ago, a few thousand *Homo sapiens* (our first genetically-equivalent ancestors) migrated out of Africa, beginning the long transgenerational

process of inhabiting and, ultimately, dominating the rest of the natural world (Leakey, 1994). This fragile process was aided by a great deal of luck and the remarkable potential of the human brain to allow non-genetic, transgenerational transmission of information (sociocultural evolution). For thousands of generations, life was characterized by danger—omnipresent threat and perverse intra-and inter species violence. Humankind and our current sociocultural practices evolved in—and therefore, reflect—a brutal, violent and unpredictable world. The evolution of complex cultures and civilization has not protected millions from the brutality, which characterized the ascent of humankind. While civilization has decreased our vulnerability to non-human predators, it has done little to decrease intraspecies violence (Keegan). Indeed, modern history is characterized by increasingly efficient, systematic and institutionalized violence (e.g., the inquisition, slavery, the Holocaust, the Trail of Tears). Men were, and men remain, the major predators of vulnerable humans (typically women and children). The profound impact of domestic violence, community violence, physical and sexual abuse and other forms of predatory or impulsive assault cannot be overestimated. Violence impacts the victims, the witnesses—and ultimately, us all. Understanding and modifying our violent nature will determine, in large part, the degree to which we will successfully adapt to the challenges of the future—the degree to which future generations of human beings can actually experience humanity.

In order to understand the origins and impact of interpersonal violence, it is essential to appreciate how violence alters the developing child. The child and adult reflect the world they are raised in. And, sadly, in today's world, millions of children are raised in unstable and violent settings. Literally incubated in terror (Perry, 1997).

The human brain acts to sense, process, perceive, store and act on information from outside and inside the body. The brain consists of hundreds of billions of cells called neurons, which are specialized, impulse-conducting cells that are the functional unit of the nervous system. Neurons are interconnected into networks and networks into systems that work together to mediate a set of specific functions such as speech or vision. The neuron consists of a cell body and its processes, the axon and dendrites. These cells are interconnected into pathways that facilitate the passage of electric signals. The electric signal, an action potential, is generated within the body of the neuron and travels along the axon until it reaches the terminal, the point of contact with a dendrite of another neuron. At this point there is a gap between the axon of the transmitting cell and the dendrite of the receiving cell, this is called a synapse. In order for

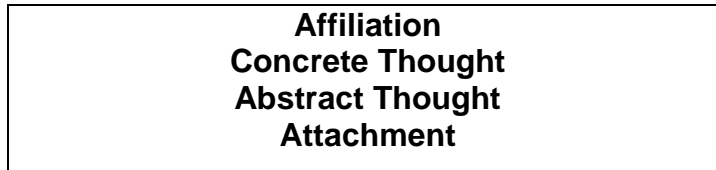
the information contained in the electrical signal to cross to the other cell a chemical process is initiated and carried out by neurotransmitters.

There are dozens of known neurotransmitters: glutamate, gamma-aminobutyric acid (GABA), serotonin, acetylcholine, norepinephrine, and dopamine to name just a few. The brain can be conceived of as the coupling of two highly complex organizations, structural and chemical. When the individual is exposed to a new pattern of information, signals from the outside world, the local biochemical and electric properties gradually change in complex distributed constellations. This process is what we understand as learning (Parent, 1995).

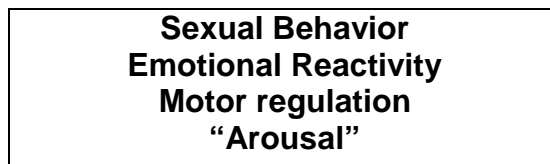
New information is passed through these pathways, and depending on the type of information, it is processed in different areas of the brain. The brain is a highly functional, hierarchical organization. Various brain areas mediate various functions. The more simple, regulatory functions such as the regulation of respiration, heart rate, blood pressure and body temperature are mediated by lower, more primitive parts of the brain (brainstem and midbrain). The most complex parts of the brain are the cortical structures; these control language and abstract thinking, etc. Thus increasingly complex functions are mediated by a hierarchy of increasingly complex brain areas (Perry, 1997).

Hierarchy of Brain Function

Cortical



Limbic



Midbrain



Brainstem



Hierarchy of Brain Function (Adapted from Perry 1997).

A copy of key points on brain organization and function is found in appendix 1.

The functional capabilities and structural organization of the human brain develop throughout the lifespan, but the greatest percentage of development occurs during childhood. Brain development is distinguished by sequential development and sensitivity, from the brainstem to the cortex. As the brain develops in this sequential and hierarchical method, the more complex systems such as the limbic, sub-cortical and cortical areas begin to modulate, moderate and control the more primitive and reactive lower portions of the brain. These brain areas develop, organize and become totally functional at different periods during childhood (Singer, 1995).

The cortical areas responsible for abstract cognition are not functional at birth and have years before they are. For example an angry two year old would have a challenging time attempting to modulate the reactive, brainstem-mediated state of arousal. The child may scream, bite, kick and throw objects. An older child will react much differently when angry. The child may feel like acting in the same manner as the two year old, but the built in capacity to modulate and inhibit these emotions will be activated. Most theories of developmental psychology adhere to the sequential development of ego-functions and super-ego that are, in fact cortically mediated, inhibitory capabilities that modulate more primitive, reactive impulses.

Healthy or normal cortical development occurs when the child is exposed to a variety of optimal emotional, behavioral, cognitive and social experiences. Disruption or deprivation of optimal developmental experiences that may lead to underdevelopment of cortical, sub-cortical and limbic areas of the brain, and will result in the persistence of primitive, immature behavioral reactivity. This will result in the child being predisposed to violent and aggressive behavior. Factors that disrupt development and increase activity or reactivity of the brainstem

such as chronic traumatic stress or factors that decrease the moderating capacity of the limbic system or cortical areas such as severe neglect will increase the child's impulsivity, aggressivity and capacity to engage in violence (Halperin et al., 1995).

During brain development the emergent neural systems are extremely dependent upon sets of environmental and micro-environmental cues, which include: neurotransmitters, cellular adhesion molecules, neurohormones and amino acids. Disruption of these critical cues may result in abnormal neural division, migration, differentiation and synaptogenesis, which in turn contribute to malorganization and diminished functional capabilities related to that particular portion of the brain. Throughout these periods of primary neural system organization the brain requires and is most sensitive to organizing experiences in the child's life. Disruption of experience-dependent neurochemical signals during these periods may lead to major abnormalities and deficits in neurodevelopment (Perry, 1997). A copy of key points in brain development is in appendix 2.

The most important and distinctive characteristic of all nervous tissue is that they are designed to transform in response to external cues. The more recurrently a certain pattern of neural activation and change occurs, the more permanent the internal representation. Repeated activation of a neural system creates a processing template through which new signals and information is filtered. When a neural network is repeatedly stimulated the information will be internalized in a use-dependent fashion. The types of use-dependent information processing and storage that is most obvious are cognitive memory and learning. Both of these examples of use-dependent information processing would contribute to the development of psychological dysfunction if the repeated signal input were of a traumatic and/or neglectful nature. Related to learning and memory is the phenomenon of sensitization. A sensitized neural response results

from a specific configuration of repeated neural stimulation and experience. When this type of pattern of stimulation occurs the neural system is altered and becomes more sensitive to the particular input. After a neural system is sensitized, the same neural activation can be obtained by decreasingly intense external stimuli (Kleven et al., 1990). Sensitization may occur when experience activates neurosensory organization, shifting the configuration and extent of neurotransmitter release throughout the neural networks responsible for sensation, perception, and the processing of the experience.

Sexually sensitizing experiences early in childhood may predispose the individual to deviant patterns of erotization. It has been shown that animate or inanimate non-sexually arousing stimuli may, through pairing with sexually arousing stimuli, acquire a conditioned sexually evocative status. Sexual arousal patterns may become paired with aggressive sexuality, corporal punishment, abusive discipline, enemas or other unexpected and often terrifying experiences. If these early experiences are associated with sexual arousal and sexual excitement they may become woven into a pattern of preferred sexual gratification. Children who have been sexually victimized may have their first sexually arousing experience at the time of the sexual abuse (Friedrich, 1995; Watkins and Bentovim, 1992).

It has become increasingly apparent that early sexual abuse is closely associated with inappropriate sexual behavior in young children (Holmes and Sapp, 1998). McClellan and others performed a retrospective chart review of 499 mentally ill children aged 8 to 15. They found that the probability of these children engaging in any sexually inappropriate behavior was inversely related to the age at which they were sexually abused. A history of sexual abuse before the age of 7 was significantly associated with hypersexuality, exposing and victimizing sexual behaviors (McClellan et al, 1996). Additionally, other studies have shown that sexually

abused children may become sexually reactive and act out in more sexually inappropriate ways than nonabused children (Deblinger et al., 1989; Friedrich, 1993). In a 1982 study Yates found that sexually victimized children 2 to 6 years old exhibited excessive erotization and that these children had difficulty differentiating sensual from affectionate touch and erotic from nonerotic relationships. They became sexually aroused quickly and turned to others for sexual gratification. (Yates, 1982). Children who have been sexually abused are more likely to exhibit sexualized behaviors such as sexualized play with dolls, excessive or public masturbation, putting objects in anuses or vaginas, requesting sexual stimulation and age inappropriate sexual knowledge (Kendall-Tackett et al, 1993).

Sexual abuse and victimization are clearly one form of child maltreatment that may contribute to the development of abusive paraphilic behaviors and it is essential to the understanding of the patterning of sexual offending behavior. However, sexual abuse is not the only traumatic experience that may affect a child's neural network development and cause the subsequent emotional and behavioral deficits that many children present with.

When children are traumatized they may display overwhelming sensitization of the neural response patterns that are coupled with their traumatic experiences. This then may result in several areas of psychological dysfunction (e.g., hyperarousal, dissociation, deviant sexual activity) even when the system is presented with seemingly minor stressors. The more the trauma-related neural systems are activated during development, the more they will become built in traits.

There is a considerable amount of empirical evidence that the developmental stage of the individual and the specific type of trauma exposure are crucial elements in the development of PTSD (Pynoos, 1993). Allan Schore poses the following questions:

What are the short-and long-lasting effects of trauma in the earliest developmental stages, why does this exposure negatively impact the maturation of the individual's stress coping systems, and how is this related to the genesis of premorbid personality organizations vulnerable to posttraumatic stress disorder? These questions, which lie at the core of trauma theory, direct clinical psychiatry into the realms of child and especially, infant psychiatry (Schore, 2002).

Reasonable and moderate estimates of the number of children in the United States exposed to a traumatic event in one year exceed 4 million (Perry, 1994a). These occurrences, whether physical or sexual abuse, living with domestic and/or community violence or surviving a terrible automobile accident, all have an adverse impact on a child's development (Taylor et al., 1992; Pynoos et al., 1987). Children who are exposed to domestic and/or community violence face a greater risk of developing serious physiological, emotional, behavioral, cognitive and social problems than children who are raised in a safe and nurturing environment. Depending on the severity, frequency, nature and pattern of traumatic events, at least half of all children exposed may be expected to develop significant neuropsychiatric symptomology (Schwartz and Perry, 1994). The fact that children who are exposed to domestic abuse and violence, and subsequently develop psychological problems in greater numbers than children who are not exposed to such traumas leads to the conclusion that abuse in the home is somehow more damaging than other forms of traumatic stressors. A copy of key points in the response to trauma is in appendix 3.

Complex Trauma as an Etiological Factor in the Development of Paraphilias

Every year in the United States at least 3,000,000 children come to the attention of agencies that monitor abuse and neglect (Wang and Daro, 1997). Yet only about 30 percent of abused and neglected children in clinical environments meet the diagnostic criteria for Posttraumatic Stress Disorder. In one study of 364 abused children the most common diagnosis in order of frequency were Separation Anxiety Disorder, Oppositional Defiant Disorder,

phobic disorders, PTSD and ADHD (Ackerman et al, 1998). Abused and neglected children are diagnosed with many psychiatric labels; none of these diagnoses alone accurately reflect the severe development disturbances and the traumatic origins of the sequelae of clinical symptomology. These children are distinguished by crippling problems with attachment, attention and with managing physiological arousal.

Epidemiological research has demonstrated that the majority of people experience at least one traumatic event in their lifetime and up to 25 percent of those individuals will develop PTSD (Hidalgo and Davidson, 2000; Davidson et al, 1991). Yet a considerable amount of research has shown that the effects of trauma on psychological functioning are not fully described by PTSD (Breslau, Davis and Andreski, 1991; Cole and Putnam, 1992). The distinction between PTSD and complex trauma is elucidated in a paper in *Directions in Psychiatry*:

One critical element in determining psychopathology outcomes is the developmental level at which the trauma occurs and whether it occurs in the context of a relationship with a caregiver or intimate partner. For example, victims of car accidents and natural disasters often have quite different clinical presentations than those who experienced abuse, deprivation and/or neglect at the hands of their caregivers. In addition, the age at which the trauma occurred also shapes the subsequent adaptation patterns. While the symptomology of victims of single incident traumas are fairly well captured in the DSM-IV diagnosis of PTSD, victims of interpersonal trauma present with a more complex picture (Luxenberg, Spinazzola, and van der Kolk, 2001).

Numerous studies have shown that there is a high rate of Comorbidity between PTSD and other disorders. In the 1995 National Comorbidity Study it was found that approximately 84 percent of the individuals surveyed, who were diagnosed with PTSD, were also diagnosed with another disorder during their lifetimes. Furthermore, it was discovered that the individuals diagnosed with PTSD were eight times more apt to have had three or more additional disorders than those who were not diagnosed with PTSD. Major depression, other anxiety disorders,

substance abuse, somatization disorder and a variety of Axis II disorders were commonly found to co-exist with PTSD (Kessler et al, 1995; McFarlane, 2000). Leaders in the field agree that the pure form of PTSD is unrepresentative of the typical clinical presentation of PTSD and in response to these findings; a syndrome called Complex PTSD has been delineated by Judith Herman (Herman, 1992). Bessel van der Kolk and his colleagues described the syndrome as Complex Trauma or Disorders of Extreme Stress in the DSM-IV field trial for PTSD (van der Kolk et al, 1993).

Findings in the field trial demonstrated that PTSD, dissociation, somatization and affect dysregulation were highly interrelated and it was additionally found that individuals diagnosed with PTSD also presented with several other symptoms not delineated in the PTSD diagnostic criteria. The research performed during the DSM-IV field trial for PTSD implies that trauma has its most damaging influence when its onset happens during early childhood or adolescence (Ackerman et al, 1998; Roth et al, 1997; van der Kolk, 1985; Zlotnick et al, 1996). The research sample showed that nearly one half of the traumatized individuals had experienced a Criterion A traumatic stressor before the age of 11. It was the individuals in this subgroup that were most likely to present with the symptoms associated with Complex Trauma. These individuals current symptomology provides strong evidence for the continuing influence of exposure to trauma during childhood.

The data from the field trial also supports the premise that interpersonal trauma experienced during childhood can have wide-ranging effects on the entirety of personality and social development. This may result in chronic affect dysregulation, aggression against self and others, dissociative symptoms and character pathology. Estimates of the incidence of trauma that occurs in childhood of psychiatric patients range from 40% to 70%, however trauma-

related disorders continue to be severely under diagnosed (Herman, 1992; Saxe et al, 1993). This situation may be more clearly seen when the multiplicity of symptoms that these individuals present goes unrecognized by the clinician as symptoms related to the individual's trauma.

The construct of Complex Trauma does address this type of symptomology in the constellation of symptoms delineated in the DSM-TR IV under "associated features" of Posttraumatic Stress Disorder. These associated features are: (1) regulation of affect and impulses; (2) attention or consciousness; (3) self-perception; (4) relations with others; (5) somatization; and (6) systems of meaning. Chronically traumatized children often present with disturbances in functioning in one or more of these areas.

Affect dysregulation may prove to be the core dysfunction that results from early childhood, chronic trauma and/or neglect (Ford, 1999; van der Kolk, 1996). People of this type may overreact to minor frustrations, become overwhelmed very easily, and to have extreme reactions to mild stimuli. They may have difficulty with calming themselves and may utilize excessive self-destructive coping mechanisms such as, compulsive sexual activity, self-injury, drug use, and eating disorders. These individuals also may have a good deal of trouble expressing or modulating anger. Of special interest is that these individuals frequently exhibit sexual preoccupation, have difficulty modulating sexual impulses and are prone to heightened risk taking behavior (Felitti et al, 1998; Poulsny and Follette, 1995; Linehan et al, 1994). Affect dysregulation is perhaps the most problematic aspect of working with chronically traumatized children and adolescents and should be the primary focus of treatment. If this is not adequately addressed the entire therapy process may be adversely affected.

Disturbances in attention or consciousness are often caused by chronic trauma. Traumatized people often learn to cope with their past trauma by dissociating; separating their traumatic memories from their normal level of consciousness. The information about experiences that individuals have is normally committed to memory as a more or less coherent whole; most of the parts of the memory of the experience are connected and can be retrieved largely intact. This is usually not the case with the storage of traumatic events. When a traumatized individual is dissociating the integration of the information does not occur. These memories then become separate aspects of consciousness that do not intrude into the person's everyday level of consciousness (Draijer and Langeland, 1999). If an experience is too overwhelming for an individual, some elements of the experience (e.g., visual, emotional, somatic) may be separated from the memory as a whole. Since these separate aspects of the memory are typically sensory and perceptual in nature and not linguistic they are often experienced as puzzling physical sensations that cannot be verbally addressed.

Disturbances in self-perception in individuals who have experienced chronic trauma often manifest as feelings of being helpless, ineffectual, damaged and undesirable to others. "These perceptions spring directly from the way young children interpret the world: their preoperational thinking places them in the center of the universe, leading them to believe that they have caused their own mistreatment" (Herman, 1992). On the other hand these same individuals may have problems accepting responsibility for their own inappropriate behavior. Chronically traumatized people typically feel that their feelings are unique and that no else can understand them or they may severely minimize their experiences as not having had much of an impact on them. This may well account, in part, for the pervasive lack of empathy displayed by children and adolescents who engage in nonconsensual paraphilic behaviors with others.

Chronically traumatized individuals very often have histories that include numerous and varied dysfunctional relationships. Childhood abuse and neglect have consistently been linked with difficulty trusting others, revictimization and the victimization of others (Fleming et al, 1999). Chronically traumatized individuals tend to anticipate that those close to them will leave or hurt them; this causes them to have difficulty developing supportive relationships. The limited sense of self displayed by these individuals and the problems associated with them being able to experience a sense of separateness from others reduces their ability to fully engage in mature mutuality and sharing. Furthermore, the tendency of the chronically traumatized to dissociate from their own bodies severely constricts their ability to enter into relationships. This dearth of capacity to know their own bodies may contribute to their lack of empathy their victims and the physical harm they cause with their nonconsensual paraphilic behavior. It is fairly common for these individuals to reenact their interpersonal traumas; this is particularly typical with children who have been sexually traumatized (Roth et al, 1997; Zlotnick et al, 1996).

A great many traumatized individuals suffer from persistent somatic complaints that are connected to an immune system dysfunction that resulted from chronic traumatization as children. Research has demonstrated that individuals who experienced three or more childhood traumatic events were twice as likely to develop a myriad of diseases and medical problems (Felitti et al, 1998). The typical somatic complaints of the chronically traumatized include Irritable Bowel Syndrome, chronic pelvic pain, headaches and acid stomach. They also have increased difficulty in their digestive, cardiopulmonary and urogenital systems (Berkowitz, 1998). These and other dysfunctions of the body are but one facet of the totality of the damage done by chronic trauma.

There is a considerable amount of evidence that chronic trauma has an impact on a biological level. Research has shown that the stress response to trauma results in the release of endogenous, stress-responsive hormones (van der Kolk, 1996, and R. Yehuda, 1999). These hormones prepare the body to mobilize resources to respond to threatening situations as demonstrated by the fight or flight analogy. When a child is exposed to repeated traumatic stress, the effectiveness of this system is appreciably compromised. Additionally it has been found that neurohormonal dysregulation caused by exposure to chronic trauma has a significant impact on the limbic system and its ability to regulate the emotional significance of incoming stimuli and the facilitation of the encoding of semantic memory. Chronic traumatic stress has also been shown to decrease hippocampal volume, which can cause a negative impact on information processing and pathological vulnerability to psychological trauma (Gilbertson et al, 2002).

Chronically traumatized people have trouble adjusting their level of physiological arousal, which suggests that the nervous systems of these individuals have become over responsive to previously innocuous stimuli (Yehuda, 2000). Traumatized individuals respond to stimuli at a lower threshold than do nontraumatized individuals due to the over production of catecholamines such as norepinephrine. This results in a broad-spectrum of feelings of anxiety, over sensitivity to stimuli and hyperarousal. Chronic stress can also cause the underproduction of serotonin, the neurohormone that mediates the behavioral inhibition system (Depue, and Spoont, 1986). This may well contribute to the aggressive paraphilic behavior in adolescents that result in sexual abuse.

The loss of neuromodulation often translates into heightened irritability, impulsivity and aggressiveness in traumatized people. It has been well documented that traumatized individuals

also underproduce Cortisol, which serves as an anti-stress hormone by signaling that other stress-related responses should be suppressed (Yehuda, 1995). In addition to reduced Cortisol production, chronic trauma also leads to elevated rates of endogenous opioid production, which results in an analgesic response to reminders of traumatic events (van der Kolk et al, 1989; Pitman et al, 1990). Wilson and colleagues have found that women with histories of chronic sexual abuse have immune system dysfunctions (Wilson et al, 1999). As Bessel van der Kolk has stated, “having lost the ability to put words to their traumatic experiences, physical symptoms may provide some chronically traumatized individuals with a symbolic way of communicating their emotional pain” (van der Kolk, 1996). It is inescapable not to conclude that the constant suffering caused by physical discomfort would predispose traumatized children to have a negative view of their world and a grim outlook for their future.

Complex Trauma also causes sufferers to have disturbances in meaning systems. Numerous chronically traumatized adolescents view the world through a dark lens. They often report that they lost their belief that life makes sense or that it has a purpose (Herman, 1992). These adolescents frequently report that they no longer have any faith in the religious or ethical belief structures that they were raised with; many view any spiritual force as being actively malevolent and insensitive to their pain. These individuals tend to embrace a fatalistic approach to life, an everyone out for himself or herself attitude. With this type of worldview there can be little doubt that these children and adolescents would feel free to engage in harmful paraphilic behaviors with a limited amount of empathy or remorse for their victims.

Compulsive Behavioral Repetition of Trauma

For those individuals who have experienced chronic complex trauma, memories of the traumas may return in several ways. The trauma may present as physical sensations, ghastly

images or nightmares, behavioral reenactments or any combination of these symptoms. Freud, Charcot and Janet all noted that memories of traumatic events dominated the mental lives of many of their patients. Many traumatized children and adolescents expose themselves, seemingly compulsively, to situations reminiscent of the original trauma. These behavioral reenactments are infrequently understood on a conscious level as being related to earlier trauma in life by the individual. This behavioral compulsion to repeat the trauma has received very little systematic exploration since it was first studied by Janet and his contemporaries (van der Kolk, 1989). There is some research that suggests that children are more vulnerable than adults to compulsive behavioral repetition and loss of conscious memory of the trauma (Terr, 1988; Horowitz, 1971). In behavioral reenactment of trauma the individual may play the role of the victim or the victimizer. Adolescents who engage in harmful paraphilic behavior are often reenacting their own victimization (Lewis, 1976). Recently she showed that of 14 juveniles condemned to death for murder in 1987, 12 had been sodomized by a relative (Lewis, 1988).

The effects of complex childhood traumatization are also present in self-destructive acts and revictimization. Green and others found that abused children engaged in headbanging, biting, burning, cutting, substance abuse and eating disorders at much higher rates than non traumatized children (Green, 1978; Simpson and Porter, 1981). The victims of rape are more likely to be raped and women who were physically or sexually abused as children are more likely to be abused as adults. Russell, in a very careful study of the effects of incest on the life of a woman, found that few women made a conscious connection between their childhood victimization and their drug abuse, prostitution and suicide attempts (Russell, 1986).

One of the major features of Complex Trauma is that it usually occurs within the context of the family. Children are dependent on social support for a sense of safety, meaning, power and control (Bowlby, 1973). Traumatization may occur when both internal and external resources are inadequate to cope with external threat. The presence of a familiar caregiver plays an important role in helping children modulate their physiologic arousal. When a caregiver is not present during stressful events, children may experience extremes of under and over arousal that are physiologically aversive and disorganizing (Finkelhor and Brown, 1985). If the caregiver is rejecting and/or abusive, children are more likely to become hyperaroused and more susceptible to reenacting the traumatic events later in life when exposed to similar events.

Some traumatized individuals will become almost addicted to traumatic stress and will continually recreate their early life trauma. Some of these people will identify with their abuser and do what was done to them. Compulsive repetition of trauma is an unconscious process that provides a temporary sense of mastery and power but eventually perpetuates chronic feelings of helplessness and a sense of being bad and out of control. When children and adolescents feel this way about themselves they have little regard for the feelings of others and may resort to harmful paraphilic behaviors.

Other Theories of the Etiology of Early Onset of Paraphilias

There are several theories that offer an explanation for the etiology of sexually deviant, paraphilic behaviors in the literature, but there is no defining theory to fully explain or accurately predict sexually abusive behavior. Each theory has its particular supporters, but the diverse explanations appear to indicate that each of the following theories makes its own contribution to an overall explanation of the etiology of these behaviors, and no theory is as yet

comprehensive enough to explain the great variance in behavior, demographic characteristics, and history. Since children and adolescents who display paraphilic behavior and commit sexual offenses are such a heterogeneous population, no single theory for the development of this deviant behavior will suffice.

Psychodynamic theorists such as Malmquist (Barbaree et al., 1993) suggest that an individual's sexually deviant interests can be traced back to dependence on very early forms of sexual behavior as a preferred means of sexual gratification. He attributes the motivation to an over functioning id and an under functioning superego. This model adheres to the idea that socially incompetent males with a poor self image avoid female and same-age peers, and turn instead to children who are less threatening (Barbaree et al., 1993).

Albert Bandura promulgates a Social Learning Theory that is based on the thesis that learning can occur through observation or example and not solely by direct reinforcement. He believes that most human behavior, this would most probably include sexual behavior, is learned through example, either intentionally or accidentally. His premise is that we learn by observing other people, "models", and patterning our behavior after theirs. Modeling is a behavior modification method that involves the subject observing the behavior of others, and joining with them in performing the desired behavior. The Bobo doll experiments that Bandura conducted demonstrated that children were able to acquire responses, including violent ones that they had never before performed, simply by observing adults engaged in this deviant behavior.

Bandura's research has shown that behavior that is usually suppressed or inhibited may be performed more readily under the influence of a model (Bandura, 1973,1986; Bandura and Walters, 1963). This phenomenon is called disinhibition and it refers to the weakening of an

inhibition or restraint through exposure to a model. Children are more likely to abandon their usual reticence to engage in aggressive behavior if they observe other people engaging in such behavior. The disinhibition phenomenon also influences sexual behavior. Walters and others conducted an experiment with a group of male, undergraduate college students, in which a film that showed erotic pictures disinhibited sexual responses in the study group (Walters, Bowen and Parke, 1963). Individuals, who depart from cultural norms and develop paraphilias that are also sexual offenses, have learned this behavior in the same manner as everyone else. The difference is that people have learned their deviant behavior from models that the majority of society considers objectionable. Certainly humans learn some of their sexual and other behaviors by observing others in many cases, but this theory does not account for children and adolescents that display paraphilic behaviors to which they were never exposed.

Conditioning and Social Learning is a model of deviant sexual behavior proposed by Marshall and Laws. In their theory an individual learns deviant sexual arousal and behavior in the same manner in which other behaviors are learned. They follow Bandura's assumption that behavior is learned through observing models. They take the premise further by adding the concept of pairing to the theory. In the case of paraphilias and sexually abusive behaviors this would involve the pairing or coupling of deviant sexual arousal and behavior with a positive reinforcer, an orgasm (Laws and Marshall, 1990).

Developmental Theory as postulated by Erik Erikson incorporates both social factors and biological factors. Erikson believed that developmental process is predicated by what he termed the epigenetic principle of maturation. This means that developmental growth through the stages is governed by inherited factors. The prefix *epi* means "upon"; development depends on genetic factors (Schultz and Schultz, 1998). The social and environmental forces to which

human beings are exposed influence the ways that the genetically determined developmental stages are realized.

For Erikson development involves a series of conflicts that each person must cope with when the environment puts a strain on us; he called this process a crisis. Every stage has a major crisis or turning point that requires the person to make a change in behavior. The manner in which a person responds to the crisis may be in an adaptive and positive way or it may be in a maladaptive and negative way. This construct points to the reason that one child develops paraphilias and becomes a sexual offender and another child victimized in the same manner does not become sexually abusive. Future sexually deviant behavior by children who have been sexually abused appears to be low (Pithers et al., 1998).

Becker and Kaplan aptly describe a model of deviant sexual behavior. They describe the three paths that adolescents take after their first offense: the “dead end path”, in which they do not commit further abusive acts; the “delinquency path” in which the abusive act is part of a wider pattern of antisocial acts; or the “sexual interest pattern path” where the adolescent develops a preference for deviant sex. Those who take the “sexual interest pattern path” are those who have found the experience to be pleasurable, who continue to reinforce the behaviors through masturbation and fantasies, and who have great difficulty relating to their same age peers (Becker, and Kaplan).

The cognitive model of the development of sexually deviant behavior informs us that individuals who engage in this type of paraphilic behavior do so due to what Aaron Beck called cognitive distortions. Beck postulated that that negative, maladaptive thoughts reflect underlying, dysfunctional beliefs and assumptions. He believed that when these beliefs are triggered by situational events, a depressive pattern is put in motion. In the case of sexually

deviant thoughts or abusive behaviors a pattern of cognitive distortions or thinking errors provide a rationale for the justification of such behaviors, allowing a perpetrator to continue the paraphilic behavior (Abel et al., 1993). The cognitive model is reinforced when it is coupled with personality characteristics that are common in men who sexually abuse others. These include low self-esteem; objectification of females; hostility and rage; feelings of powerlessness and/or emptiness; poor impulse control; gender identity confusion; a fear of intimacy; and poor coping and problem-solving skills (Davis and Leitenberg, 1987; Groth, 1977; Haines, Herrman, Baker, and Graber, 1986).

Individuals with trauma-based cognitive schemes tend to organize their world view and view of themselves around their childhood traumatic experiences. Quite often there are parallel, co-existing schemes that are activated in a state-dependent manner. A person might show high levels of competence and interpersonal regard and also be plagued by self-hatred, lack of self-care and interpersonal cruelty (Crittenden, 1988). Many people repeat their family patterns in interpersonal relationships where they alternate between being the victim and the perpetrator. This alternating of roles is often used to justify their behavior by their own feelings of betrayal and helplessness. Kernberg described this as the individual's use of projective identification; attribution of one's own most despicable traits on to others and acting on the basis of that projection and not acknowledging the existence of those traits in oneself (Kernberg, 1975).

Complex Trauma Diagnosed as Other Disorders

The association between trauma and Attention-Deficit Hyperactivity Disorder (ADHD) has been a source of controversy and debate for both researchers and clinicians. Various studies have suggested an association between ADHD and trauma or PTSD (Famularo, 1996; Glod

and Teicher, 1996). However, despite the obvious importance of differential diagnosis in this area, the association between ADHD and trauma has not been systematically addressed, and few studies have examined the temporal sequencing of PTSD or Complex Trauma and comorbid conditions (Pfefferbaum, 1997). Because traumatized children frequently are agitated and inattentive, they may present with ADHD type behaviors, raising important clinical questions as to whether they have ADHD or trauma spectrum phenomena. The presence of PTSD symptoms of increased arousal, such as poor concentration and exaggerated startle response, may mimic ADHD, leading to the potential misdiagnosis of ADHD in these children.

A major factor that greatly complicates the search for understanding the association between trauma and ADHD is the high level of psychiatric comorbidity within ADHD. Converging evidence from clinical and epidemiological samples has documented that ADHD is frequently comorbid with conduct disorder, anxiety disorders as well as bipolar and unipolar mood disorders, which have also been associated with PTSD and trauma (Biederman et al., 1996b; Butler et al., 1995). Breslau found that childhood conduct disorder and preexisting anxiety and depressive disorders were risk factors for exposure to trauma (Breslau et al., 1991). Similarly, in the National Comorbidity Survey, Kessler found that an association exists between PTSD and mood (depression and mania), anxiety, substance abuse and conduct disorders (Kessler et al., 1995).

As was demonstrated in the discussion of Complex Trauma the behaviors that frequently lead clinicians to diagnose ADHD, mood disorders and conduct disorder may very well be symptoms of a trauma spectrum disorder. The treatment methods that are successful for treating ADHD such stimulant pharmacotherapy would have potentially serious adverse effects

on the child with complex trauma. Careful differential diagnosis and a thorough working knowledge of trauma spectrum disorders are necessary for clinicians to adequately and safely treat children who present with severe affect dysregulation.

Bipolar Disorder in children and adolescents can be difficult to properly diagnose and the rapid cycling commonly attributed to this disorder may in fact be the affect dysregulation caused by chronic traumatization. The indications for pharmacotherapy for Bipolar Disorder and Complex Trauma are different and once again careful differential diagnosis needs to be made before psychotropic medication is prescribed.

Current Treatment Theories and the Implications for Revised Treatment Strategies

This section examines the theories on which the majority of treatment programs that work with sex offenders are based. Recent meta-analytic treatment outcome studies of adult male sexual abusers conclude that cognitive-behavioral treatment is the most effective approach (Aos et al., 2001; Hanson et al., 2002; Polizzi et al., 1999). The effectiveness of cognitive-behavioral therapy for adolescent male sexual abusers also has been well documented, as have systemic treatments targeting the youth's current life problems in the areas of family, school and peer relationships (Aos et al., 2001; Borduin and Schaeffer, 2001; Hanson et al., 2002). The programs for adults and adolescents are nearly identical in the makeup of the various components. Respondents to the 2002 Safer Society Survey were asked to rank the program theories that best described their program. The following are the results of that survey by rank order.

Bio-medical. The primary focus is on the medical model and disease processes. Medication, such as antiandrogens and selective serotonin reuptake inhibitors, is a major treatment

emphasis. It should be noted that the use of antiandrogens is not common in the treatment of adolescent sex offenders.

Cognitive-Behavioral. This method blends two approaches. Cognitive therapy is based on the premise that how we think largely determines how we act and that we can change how we act by changing how we think. Behavior therapy is founded on the premise that behavior is learned and that it can be changed by a variety of conditioning methods.

Family Systems. In this model, the family system is viewed in the context of how it may have contributed to and maintained problematic sexual behavior. The family is the primary unit of treatment and the goal is to change maladaptive relationship patterns.

Multi-Systemic. Multi-systemic approaches use a broad-based array of treatment interventions to influence the client and his or her natural environment. Services are often provided in the home, neighborhood, school and community in an effort to change the client's ecological context.

Psychodynamic. This model emphasizes the importance of understanding the unconscious forces that shape human sexual and other behavior.

Psycho-Socio-Educational. This model emphasizes education as a method of helping sexual abusers change their behavior. Group classes and social skills practice are typically included.

Relapse Prevention. Relapse prevention is a multi-modal cognitive-behavioral approach. Emphasis is on helping abusers learn self-management skills to prevent relapse and teaching others how to supervise the abuser and assist him or her in successfully using these skills. Relapse prevention can be used as an overarching framework for providing treatment and supervision services to abusers.

Sexual Addiction. Sexual abusers who commit certain types of sexually abusive behavior are viewed as having a sexual addiction. Treatment includes attendance in a 12-Step program such as Sexaholics Anonymous or Sex and Love Addicts Anonymous.

Sexual Trauma. Sexual trauma models posit that being sexually abused, as a child is a major explanatory factor as to why some sexual abusers commit their offenses. Helping abusers resolve their sexual trauma is considered a critical treatment component.

Social Learning. The social learning model focuses on the abuser's attitudes and beliefs, perception of the expectations of others and the influence of situational and environmental factors in shaping and changing their behavior.

Primary theory that best describes program, percentage		
Residential program	Adults	Adolescents
Bio-medical	0.0	0.0
Cognitive-behavioral	61.3	69.7
Family systems	0.0	1.2
Multi-systemic	1.3	3.6
Psycho-dynamic	1.3	1.8
Psycho-socio-educational	6.3	6.1
Relapse prevention	25.0	12.7
Sexual addiction	2.5	0.6
Sexual trauma	1.3	1.8
Social learning	1.3	1.2
Other	0.0	1.2
Total	100%	100%

Program Theories and Table from 2002 Safer Society Survey.

The table above clearly demonstrates that cognitive-behavioral and relapse prevention theory dominates (over 84%) the approaches to treating adolescent sexual abusers. If trauma, and especially complex trauma is potentially a major factor in the etiology of paraphilic behavior, then the need for other types of treatment becomes apparent.

Current treatment modalities address deviant arousal and behavior primarily through the higher brain functions that are mediated by cortical regions. However, these approaches do not address how the developing brain organizes in response to trauma. As discussed previously, when children are exposed to chronic abuse they do not develop in an optimal manner. Chronic trauma exposure effects brain development in several ways:

- Excessive activation of amygdala in response to neural stimuli
- Suppression of activity in left prefrontal cortex, causing loss of observing ego, decreased executive functioning and control
- Under-development of right orbitofrontal cortex, resulting in decreased ability to self-regulate affectively and autonomically
- Decreased hippocampal volume, resulting in decreased ability to put experience into chronology or perspective
- Underdeveloped corpus collosum, decreased neural connections between hemispheres, resulting in loss of right-left feedback
- Decreased serotonin levels/increased Cortisol levels, resulting in depressive vegetative symptoms
- Chronic autonomic nervous system dysregulation

Fisher, 2001

There are many experimental and validated treatment methodologies in use by clinicians to more effectively address the physiological components of traumatic memory and the hyperarousal and dysregulation that it causes. Anne Dietrich and colleagues reviewed several approaches including the Trauma Recovery Institute (TRI) Method, Trauma Incident Reduction (TIR), Visual/Kinesthetic Disassociation (V/KD) and Thought Field Therapy (TFT) (Dietrich et al, 2000).

Pat Ogden states that traditional psychotherapy addresses the cognitive and emotional elements of trauma, but lacks techniques that work effectively with the physiological elements, despite the fact that trauma affects the body and many symptoms of traumatized individuals are somatically based (Ogden, and Minton, 2000). Ogden has developed Sensorimotor Psychotherapy that integrates both cognitive and somatic methods in the treatment of trauma, attachment and developmental issues.

Neurotherapy for Posttraumatic Stress utilizes neurofeedback and quantitative EEG (brain electrical activity) to help retrain the patient's brain. This theory postulates that the traumatic memories induce a deeply altered state of consciousness, which is so far from the normal state that it is inaccessible to the individual when awake. The therapy is conducted with the aid of computer programs that continuously give feedback to the patient and allow him or her to adjust brain wave rhythm and thus change patterns of arousal and behavior (Behavioral Medicine, 2003).

Emotional Freedom Techniques (EFT) has been gained acceptance by a considerable number of therapists for use in the reduction of anxiety disorders and phobias. A recent study published in the Journal of Clinical Psychology it was found that this technique produced significant positive changes in patients suffering from PTSD (Wells et al, 2003).

Perhaps the most widely used and studied technique for use in reducing the effects of trauma is Eye Movement Desensitization and Reprocessing (EMDR). Datta and Wallace (1996) reported on the EMDR treatment of ten incarcerated adolescent male sex offenders who themselves had also been sexually abused. Following an average of only three EMDR sessions that focused on their own trauma history, in addition to standard care, participants demonstrated significantly increased empathy for victims of abuse. Such empathy would be presumably incompatible with further sexually abusive behavior. At one-year follow-up, the empathy gains were maintained, as well as the reduced stress and increased self-esteem related to the targeted memories. Control groups did not show similar gains in empathy. Additionally many participants showed objective behavioral gains, including spontaneous attempts at victim restitution, increased IQ scores, improved school performance and exemplary behavior in the community. The implications of this and other studies are that EMDR may be of significant use in reducing offensive paraphilic behaviors in children and adolescents.

CHAPTER THREE

Methodology

Introduction

This chapter delineates methodological procedures for the current study. This study was based on a collective case study approach. Research questions are reviewed, the target population and participant selection procedures are presented, and the instrumentation is described. In addition, data collection, survey and assessment instruments, and data analysis methods are presented.

The study utilized three assessment forms, developed by the author, to evaluate the participants to be included in the case study. Assessment Instrument A, Presenting Paraphilia, was utilized in conjunction with a thorough review of all of the participant's files that were selected for possible inclusion in the collective case study (see appendix A). Assessment Instrument B was used to screen each individual's case file for a history of Complex Trauma (see appendix B). Assessment Instrument C screened for the presence of the sequelae of associated features that define complex trauma (see appendix C).

Research Questions

The methods described in this chapter were derived from the following three research questions:

1. What paraphilias are present in the study population?
2. What types of traumatic stressors and/or events have the study population been exposed to?
3. What symptoms of Complex Trauma are present in the study population?

Findings related to each research question are offered in chapter four and discussed in chapter five.

Participants

The population selected by the researcher for this study was ten juvenile sex offenders who had been committed to a sex offender treatment program at a level 8/10 facility that is a high risk, maximum-security residential program. All participants were involuntary placements and were informed of researcher's intent to study their histories for the purpose of gathering data for the development of a theory of the etiology of paraphilic behaviors in children and adolescents.

The ten participants included in this study ranged in age from 14-17. Their age was determined at the time of their intake into the residential program. All participants were from the State of Florida. Each participant had been placed in the facility after having been adjudicated for one or more sex offenses. Each record was reviewed pertaining to subject's race and ethnicity. All of the participants were in one of three categories: African American/Black, Caucasian, and Hispanic. All of the participants were enrolled in the local Alternative High School and were in the 9th grade or above.

Criteria for Selection

Participants for this study were identified utilizing the following criteria:

1. Between the ages of 13 - 20
2. Adolescent has documented history of sexual offending behavior
3. Adolescent has a history of abuse and/or neglect
4. Current placement in the residential treatment program.
5. Subjects had committed their sex offense prior to age 16.

Procedures

The case files of the 10 adolescents selected for the study were obtained for use in the study by permission of the program administration. The records reviewed included current and historic data from the Department of Juvenile Justice, the participant's previous schools; all past and current psychological and psychosexual evaluations. Medical records were not available to the researcher. The current data was assembled by conducting interviews with the participants and in some cases with the parent/guardian of adolescents in the study. Since the program administration does not have a method for obtaining offender specific data, the researcher developed a protocol for organizing the data gleaned from the three assessment

instruments into one format so that the information for each participant could be easily analyzed. Please refer to the data collection forms included in the appendices. A letter from the alphabet from A to J for data collection purposes and to ensure confidentiality identified each participant.

Instruments and Data Collection

The instruments for this study were developed by the author to collect the data pertinent to the first three research questions. Additionally, an instrument was devised to compile the data and another was created as a key to simplify the interpretation of the data.

Assessment Instrument A addresses research question one, what paraphilias are present in the study population? The paraphilias included on this form are derived from the DSM IV TR. This study was concerned with the early onset of paraphilic behavior; therefore the instrument solicited information on the age of onset of the paraphilic behavior and the number of occurrences of the behavior.

Assessment Instrument B addresses research question two; what types of traumatic stressors and/or events have the study population been exposed to? The domains for this instrument were included because they represent the most common types of traumatic experience that occur in childhood and adolescence. One of the most salient features of Complex Trauma is that the abuse/neglect are usually inflicted by the individual's caregivers and generally continues for a prolonged period of time. This instrument asks for the age of onset of the abuse/neglect, the duration of the abuse/neglect and the identity of the perpetrator.

Assessment Instrument C addresses research question three; what symptoms of Complex Trauma are present in the study population? This instrument encompasses the symptomology associated with Complex Trauma. These domains were developed as the criteria for the

diagnosis of Complex Trauma in Complex Trauma and Disorders of Extreme Stress (DESNOS) Diagnosis, Part One: Assessment (Luxenberg et al., 2001).

The data for the three assessment instruments was collected during case file examination and by means of face-to-face interviews with participants. In some cases the participant's parents or guardians were contacted to verify the accuracy of the information.

Data Analysis

Subsequent to the completion of the data collection process the researcher created tables to facilitate the systematic examination of the information.

The Compilation of Assessment Results form was developed to collate the findings and present the data in a structured format. The method utilized for the format allows the reader to quickly distinguish what each participant's data reveals about his paraphilia and trauma history.

In order to simplify the interpretation of the data presented on the compilation form a Key to Abbreviations form was developed. The key's development facilitated the presentation of the data in a more concise manner than would a full text document.

The analyzed data demonstrates that certain types of trauma are present throughout the vast majority of the population. The data points to several areas that should be addressed in future studies.

Summary

This chapter reviewed the research methods utilized in this study. Informed by the research questions promulgated at the beginning of the chapter, a target population and participant selection procedures were described, instrumentation was reviewed, evaluation and data collection procedures were presented and data analysis was noted.

CHAPTER FOUR

Results

Introduction

This chapter elucidates the results of the data collection procedures delineated in Chapter Three. The first section examines the results from Assessment Instrument A, Presenting Paraphilia. The second section examines the results from Assessment Instrument B, Complex Trauma History. The third section examines the results from Assessment Instrument C, Sequelae of Associated Features.

Presenting Paraphilia

Two of the paraphilias included on the instrument were present in statistically high numbers. Exhibitionism was present in 70% of the population and pedophilic behavior in 90% of the participants. The mean age of onset for exhibitionism was 12.9 years and the mean age for the onset of pedophilic behavior was 12.5 years. None of the other paraphilias on the instrument were present in significant numbers. The combination of pedophilic behavior and exhibitionism in an individual participant was 70% throughout the study population..

Complex Trauma History

The data gathered utilizing this instrument showed four of the domains to be highly represented in the study population. Abandonment and family loss was present in 90% of the population; emotional neglect was also present in 90% of the participants. Emotional abuse was noted in 80% of the population. Physical abuse was present in 80% of the participants. The incidence of sexual abuse was at 50%; this number is consistent with figures stated in the literature review. The witnessing of domestic violence was present in 50% of the cases.

The presence of both abandonment/family loss and emotional abuse/neglect was present in 70% of the study population in which pedophilic behaviors were noted. The other highly significant trauma represented in the pedophilic behavior population was physical abuse; this was present in 80% of the participants.

Sequelae of Associated Features

Alteration in regulation of affect and impulses results all demonstrated a significant presence with the one exception of suicidal preoccupation at 30%. As should have been predicted difficulty modulating sexual involvement presented extremely high; 100% of the participants presented with this symptom. Both affect regulation and self-destructive behavior presented at 70% and modulation of anger was at 60%.

The domains associated with dissociative symptoms did not indicate that there was a significant degree of this type of symptomology in the study population. Amnesia was present in only 10%, one participant, and dissociative episodes and depersonalization in only 20%.

The results in the area of alterations in self-perception indicated a fairly average presence of all the domains within the population. Permanently damaged was the highest at 60%; ineffectiveness and shame were present in 50%, nobody understands me and minimizing were present in 40% of the population and Guilt and responsibility was endorsed by 30%.

Alterations in relations with others yielded the following results: 70% showed an inability to trust, 50% had been revictimized and predictably, victimizing others presented at 90%. It should be noted that although 90% of the participants had sexually victimized others only 50% had been victims of sexual abuse themselves.

None of the domains in the somatization category were endorsed by any of the population participants. This finding is consistent with the fact that medical records for the participants

were not available to the researcher. Further, the participants did not endorse any of the domains during a face-to-face interview.

The final category of alterations in system of meaning produced a presentation of despair and hopelessness of 60%. Loss of previously held beliefs showed 0% endorsement. This total lack of presentation may be attributed to the young ages of the participants or to the absence of any meaningful belief system in the participant's family environment. Additional study in this area may be warranted.

CHAPTER FIVE

Discussion of Results

Introduction

This chapter provides a summary of the study, reviews the results for each research question; conclusion; discussion; and implications for treatments and recommendations for future research.

Summary

This study sought to demonstrate a link between the early onset of paraphilias and the effects of chronic childhood trauma. The study focused on the paraphilic behaviors of ten incarcerated juvenile sex offenders. Three areas of interest and data collection were examined based the construct of the study. Data was collected, collated and analyzed utilizing instruments developed especially for the study. The goals of the study were to gather information relevant to traumatic factors that contribute to the development of paraphilias and deviant sexual behaviors. This study addressed three research questions; the major results are summarized below.

1. What paraphilias are present in the study population?

The study's data yielded sufficient information to suggest several premises about this particular population. First, the incidence of pedophilic behaviors in these adolescents was very high and the mean age of documented onset is 12.5 years. All but one of the participants had engaged this type of sexually abusive behavior. Second, exhibitionism is the second highest presenting paraphilia at 70%. The mean age on first documented onset is 12.9 years.

The participants in the study engaged in pedophilic and exhibitionist type behaviors at a ratio of 3.429 to 1 compared to all other paraphilias in the study. This data suggests that the participants in this study were highly prone to direct physical involvement with their victims and a need to be seen and validated by others.

2. What types of traumatic stressors and/or events have the study population been exposed to?

The data from this study population clearly demonstrate that certain types of traumatic stressors are more universal within this study population. Abandonment or loss of a parent and emotional neglect were noted in all but one participant. Emotional abuse and physical abuse by a caregiver was presented by all but two of the participants.

These data strongly suggest that it is the trauma associated with a lack of the physical or emotional presence of a parental figure and/or physical or emotional abuse by a parental figure that are most highly correlated with paraphilic behavior.

3. What symptoms of Complex Trauma are present in the study population?

The symptoms associated with complex trauma that were most commonly observed were those that are associated with an individual's inability to regulate affect and

control impulsive behavior. The next highest symptom category presented by the population participants was alterations in relations with others. This group of symptoms shows that the study population in general has a significant deficit in their ability to form trusting, non-abusive relationships with others. These two categories of symptoms were the most presented by the participants by a ration of 1.57 to 1.

Conclusion 1

The adolescents in this study have an average onset age 12.7 for their paraphilias. The documented paraphilias most commonly engaged are pedophilic and exhibitionist type behaviors. These pedophilic behaviors are sexually stimulating and give physical dominance over the victim for the abuser. The exhibitionism allows the perpetrator to be seen and acknowledged.

Conclusion 2

The trauma that is derived from the lack of a parental figure or the lack of emotional nurturing by a parental figure and/or emotional or physical abuse by a parental figure is highly correlated with the early onset of paraphilic behaviors in the study population. These types of traumatic attachment experiences appear to be more instrumental to the development of the paraphilias than any of the other traumatic stressors or events noted in this study.

Conclusion 3

The Complex Trauma symptoms that were most widely experienced in the study population were those that are related to physically aggressive sexual behavior. Difficulty regulating affect and controlling impulsive behavior coupled with the

inability to trust other individuals and value their sexual boundaries are most highly correlated to the early onset of paraphilias.

Discussion

The purpose of this study as stated in Chapter One was to demonstrate a link between the early onset of paraphilias and Complex Trauma. If a link between the early onset of paraphilic behaviors and chronic trauma could be established it would add to the body of knowledge on the etiology of these behaviors. The study reinforced the premise put forth by Ford and van der Kolk that affect dysregulation may be the core dysfunction that results from early childhood trauma. As was stated by Fleming, childhood abuse and neglect have consistently been linked with difficulty trusting others, revictimization and the victimization of others; this study's data support that finding. The study has shown a demonstrable link between the two variables.

As is shown in the Safer Society table the vast majority of treatment modalities utilized by treatment programs for juvenile sex offenders is cognitively based. The study's literature review demonstrates how trauma effects and is mediated by the midbrain brain and not in the cortex. In order to treat traumatized individuals who have engaged in paraphilic behavior successfully, their own trauma issues need to be addressed before other treatment approaches are made. Effective treatment programs need to incorporate treatment methods such as EMDR, Sensorimotor Psychotherapy and psychodrama to engage the non-cortical areas of brain functioning that can mediate the autonomically, spontaneous arousal that traumatic memories can trigger.

Implications and Recommendations

This research has clearly demonstrated several general facts:

1. There is a link between the early onset of paraphilias and Complex Trauma.
2. Certain paraphilias and traumatic experiences are closely related.
3. Traumatic experience is not adequately addressed in sex offender treatment programs.
4. Current trauma based therapies are under utilized.

These facts point to several recommendations for future research and clinical practice. More in-depth studies should be undertaken to further inform the field on the relationship of paraphilic behavior and Complex Trauma. More trauma specific treatment modalities need to be developed and utilized in sex offender treatment programs. Clinicians need to be more fully informed on the impact that chronic traumatization can have on their clients in order to provide better outcomes for treatment.

Appendix A

KEY POINTS: BRAIN ORGANIZATION AND FUNCTION

- The brain is not a 'single' system. It is many interacting and interconnected system organized in a specific hierarchy -- with the most complex (cortex) on the top and the least complex (brainstem) on the bottom.
- Different parts of the brain -- different 'systems' in the brain' -- mediate differed functions (e.g., the cortex mediates thinking, the brainstem/midbrain mediate state of arousal).
- All systems in the brain are comprised of networks of nerve cells (neurons). These neurons are continuously 'changing' (in chemical and structural ways) in response to 'signals' from other parts of the brain, the body or the environment (e.g., light, sound taste, smell).
- The 'changes' in neurons allow the storage of 'information'. This storage of information is the basis for 'memory' -- memory of all types -- motor, sensory, cognitive and affective.
- Different parts of the brain -- which mediate different functions -- store information (memory) that is specific to the function of that part of the brain. This allows for different types of 'memory' -- for example, cognitive (names, phone numbers), motor (typing, riding a bicycle), 'affect' (nostalgia).
- The brain stores information in a use-dependent fashion. The more a neurobiology system is 'activated' the more that state (and functions associated with that state) will be 'built' in -- for example, practicing the piano, 'memorizing' a poem, or staying in state of fear.

- In different 'states' of arousal (e.g., calm, fear, sleep), different neural systems are activated. Because the brain stores information in a use-dependent fashion, the information 'stored' (i.e., the memories) in any given situation depends upon the state of arousal (i.e., the neural systems which are activated). One example of this is 'state-dependent' learning -- another is the hyperarousal symptoms seen in post traumatic stress disorder.

Appendix B

KEY POINTS: BRAIN DEVELOPMENT

- The brain develops in a predictable fashion -- from most primitive to most complex; Ontogeny recapitulates phylogeny.
- Normal development of neuronal systems (and functions they mediate) require specific patterns of activity -- specific 'signals' -- at specific times during development.
- These critical periods are windows of vulnerability during which the organizing systems are most sensitive to environmental input -- including traumatic experience.
- Because the different systems in the brain develop (or mature) at different times in the life of a child, there are different critical periods for different functions (e.g. regulation of anxiety, mood, abstract thought).
- Because these brain systems develop in a sequential fashion, from brainstem to cortex, optimal development of more complex systems (e.g., the cortex) require healthy development of less complex systems (e.g., the brainstem and midbrain).
- Therefore, if the state-regulating parts of the brain (brainstem and midbrain) develop in a less than optimal fashion (e.g., following excessive traumatic experience) this will impact development of all other regions of the brain.
- The brain remains sensitive (plastic) to experience throughout life -- but differed parts of the brain are most plastic (cortex) and others are relatively implastic (brainstem).

- Experience can change the mature brain – but experience during the critical periods of early childhood organizes brain systems.
- Trauma during infancy and childhood, then, has the potential effect of influencing the permanent organization -- and all future functional capabilities -
- of the child.

Appendix C

KEY POINTS: THE RESPONSE TO TRAUMA

- The brain mediates threat with a set of predictable neurobiological, neuroendocrinological and neuropsychological responses.
- These responses may include different 'survival' strategies -- ranging from fighting or fleeing to 'giving up' or a 'surrender' reaction.
- There are multiple sets of neurobiological and mental responses to stress. These vary with the nature, intensity and frequency of the event. Different individuals may have differing 'response' sets to the same trauma.
- Two primary adaptive response patterns in the face of extreme threat are the hyperarousal continuum (defense -- fight or flight) and the dissociation continuum (freeze and surrender response). Each of these response 'sets' activate a unique combination of neural 'systems'.
- These response patterns are somewhat different in infants, children and adults though they share many similarities. Adult males are more likely to use hyperarousal (fight or flight) response -- young children are more likely to use a dissociative pattern (freeze and surrender) response.
- As with all experience -- when the brain 'activates' the neurophysiological system associated with alarm or with dissociation, there will be use-dependent neurobiological changes (or in young children, use-dependent organization), which reflects this activation.

- It is these use-dependent changes in the brain development and organization, which underlie the observed emotional, behavioral, cognitive, social and physiological alterations following childhood trauma.
- In general, the predominant adaptive style of an individual in the acute traumatic situation will determine which post-traumatic symptoms will develop -- hyperarousal or dissociative.

Key points adapted from Perry, 1997.

Appendix D

PRESENTING PARAPHILIA
(Assessment Instrument A)

Paraphilia	Present and # of offenses	Not Present	Age of Onset
Exhibitionism			
Voyeurism			
Frotteurism			
Toucheurism			
Pedophilia			
Fetishism			
Transvestic Fetishism			
Sexual Masochism			
Sexual Sadism			
Paraphilia NOS			

Resident
Age
Race

Appendix E

COMPLEX TRAUMA HISTORY

(Assessment Instrument B)

Type of Trauma	Present	Caregiver	Age at Onset	Duration
Sexual Abuse				
Incest				
Physical Abuse				
Emotional Abuse				
Emotional Neglect				
Abandonment				
Family Loss				
Witnessing Domestic Violence				
Witnessing Community Violence				
Chronic Instability				

Resident

Age

Race

Appendix F

SEQUELAE OF ASSOCIATED FEATURES
(Assessment Instrument C)

Associated Features of Complex Trauma	Alterations in Functioning	Description of Symptoms Present
Alteration in Regulation of Affect and Impulses	A. Affect Regulation B. Modulation of Anger C. Self-Destructive D. Suicidal Preoccupation E. Difficulty Modulating Sexual Involvement	
Alterations in Attention or Consciousness	A. Amnesia B. Transient Dissociative Episodes and Deper- sonalization	
Alterations in Self- Perception	A. Ineffectiveness B. Permanently Damaged C. Guilt and Responsibility D. Shame E. Nobody Can Understand Me F. Minimizing	
Alterations in Relations With others	A. Inability to Trust B. Revictimization C. Victimizing Others	
Somatization	A. Digestive System B. Chronic Pain C. Cardiopulmonary Symptoms D. Conversion Symptoms E. Sexual Symptoms	
Alterations in Systems of Meaning	A. Despair & Hopelessness B. Loss of Previously Sus- taining Beliefs	

Resident

Age

Race

Manual insert of Table

Manual insert of Table 1

Manual insert of Table 2

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Table 1

KEY TO ABBREVIATIONS

Presenting Sexual Behavior		Complex Trauma History		Associated Features of Complex Trauma	Alterations in Functioning	Features and Functioning Key
Exhibitionism	Ex	Abandonment	Ab	A. Alteration in Regulation of Affect and Impulses	1. Affect Regulation 2. Modulation of Anger 3. Self-Destructive 4. Suicidal Preoccupation 5. Difficulty Modulating Sexual Involvement	A1
Fetishism	Fe	Chronic Instability	Ci			A2
Frotteurism	Fr	Emotional Abuse	Ea			A3
Paraphilia NOS	Pn	Emotional Neglect	En			A4
Pedophilia	Pe	Family Loss	Fl			A5
Sexual Masochism	Sm	Incest	In	B. Alterations in Attention or Consciousness	1. Amnesia 2. Transient Dissociative Episodes and Depersonalization	B1
Sexual Sadism	Ss	Physical Abuse	Pa			B2
Toucheurism	To	Sexual Abuse	Sa			
Transvestic Fetishism	Tv	Witnessing Community Violence	Wc	C. Alterations in Self-Perception	1. Ineffectiveness 2. Permanently Damaged	C1
Voyeurism	Vo	Witnessing Domestic Violence	Wd			C2
					3. Guilt and Responsibility	C3
					4. Shame	C4
					5. Nobody Understands Me	C5
					6. Minimizing	C6

Table 1

		D. Alterations in Relations with Others	1. Inability to Trust 2. Revictimization 3. Victimizing Others	D1 D2 D3
		E. Somatization	1. Digestive System 2. Chronic Pain 3. Cardiopulmonary Symptoms 4. Conversion Symptoms 5. Sexual Symptoms	E1 E2 E3 E4 E5
		F. Alterations in System of Meaning	1. Despair and Hopelessness 2. Loss of Previously Held Beliefs	F1 F2

Table 2

COMPILATION OF ASSESSMENT RESULTS

Participant	Presenting Sexual Behavior	Age of Onset	Complex Trauma History	Associated Features
A	Fe, Fr, To, Tv	10, 13, 13, 10	Ab, Ea, En, Fl, In, Pa, Sa	A1, A2, A3, A4, A5, C3, C4, C5, D1, D2, D3, F1
B	Ex, Pe	14, 13	Ab, Ea, En, Pa, Wd	A1, A2, A5, B2, C1, C2, C3, C4, D3, F1
C	Ex, Pe, Pn	14, 12, 12	Ab, En, Sa	A1, A2, A3, A4, A5, C1, C6, D2, D3
D	Ex, Pe	13, 14	Ea, En, Fl, Pa	A3, A5, C2, C5, D1, F1
E	Ex, Fr, Pe, Sm	10, 12, 13	Ab, Ea, En, Fl, In, Pa, Sa, Wd, Wc	A1, A2, A3, A4, A5, C5, D1, D2, D3, F1
F	Pe	13	Ab, Ea, En, Fl, Pa, Wd	A1, A2, A3, A5, C6, D1, D3
G	Ex, Pe	10,10	Ab, Ea, En, Pa, Sa	A3, A5, C1, C2, C4, C6, D1, D3, F1
H	Ex, Pe	14, 12	En, Pa, Wd	A2, A5, C1, C2, C3, C4, C5, D1, D3,
I	Ex, Pe, Pn	10, 14, 6	Ab,Ci, Ea, Pa, Wd	A1, A3, A5, B1, C2, C6, D3, F1
J	Pe	13	Ab, Ea, En, Pa, Sa	A1, A2, A5, B2, C1, C2, C4, D1, D3,