

**CHILD ABUSE IN AMERICA:  
PREVALENCE AND CONSEQUENCES**

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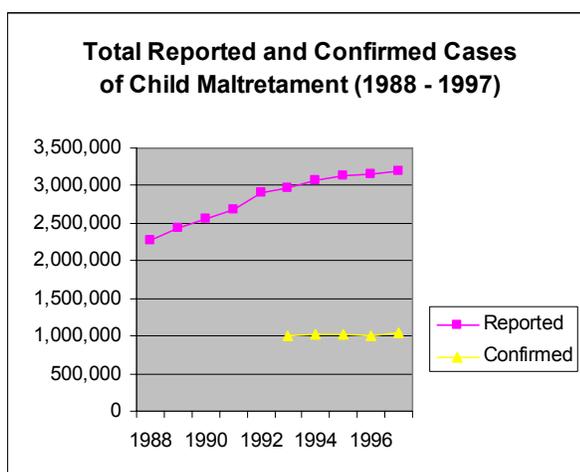
**ABSTRACT**

**Childhood abuse and neglect is a serious problem in the United States; each year, over three million children are reported abused and/or neglected. One million of these reports are substantiated; however, more than half of the confirmed cases are closed on the day of substantiation. Research has shown that a range of psychiatric symptoms and disorders in child- and adulthood are associated with early trauma, including depression, post-traumatic stress disorder, borderline personality disorder, substance use, suicidality, self-mutilation, somatization, sexual behavior problems, dissociative disorders, and learning disorders. Moreover, abusive childhood experiences have been associated with increased risks of violent offending and being a victim of violence. Childhood abuse and neglect is a major public health problem cannot only dramatically affect the quality of life of many individuals, but also is enormously expensive for society at large. The present paper reviews both the prevalence of childhood abuse and neglect as well as its psychiatric and general health sequelae in child- and adulthood.**

## Demographics of Child Maltreatment in America

### Total Incidences of Reported and Substantiated Abuse in America

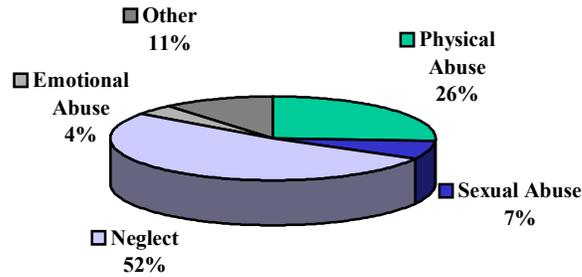
In 1997, an estimated 3,195,000 children were reported to the Child Protective Services (CPS) nationwide for being abused and/or neglected (Wang and Daro, 1997). The number of child abuse/neglect cases being reported to the CPS has risen steadily since 1988. Despite the marked increase in cases being reported for investigation, the number of substantiated cases of child abuse and neglect has remained virtually unchanged since 1993 (see Figure 1). From 1993 to 1997, the number of substantiated cases has involved 15 out of every 1,000 children each year (Wang and Daro, 1997). Wang and Daro further estimated that 1185 children died in 1996 due to child abuse and neglect. This represents a 34% increase over the estimate of 798 children in



1985.

### Types of Abuse

A breakdown of the different types of abuse occurring in substantiated CPS cases is shown in Figure 2. Neglect was the most common form of abuse accounting for 52% of all cases. Physical abuse ranked second and occurred in 26% of cases. Sexual abuse cases were the third most common, representing 7% of all cases. Emotional abuse cases represented 4% of all reports, and 11% of cases fell into a miscellaneous “other” category. Types of cases that fell into the “other” category included multiple types of maltreatment, medical and educational neglect, substance and/or alcohol abuse or dependency, lack of supervision, threat of harm, “bizarre” discipline and imminent risk (Wang and Daro, 1997).



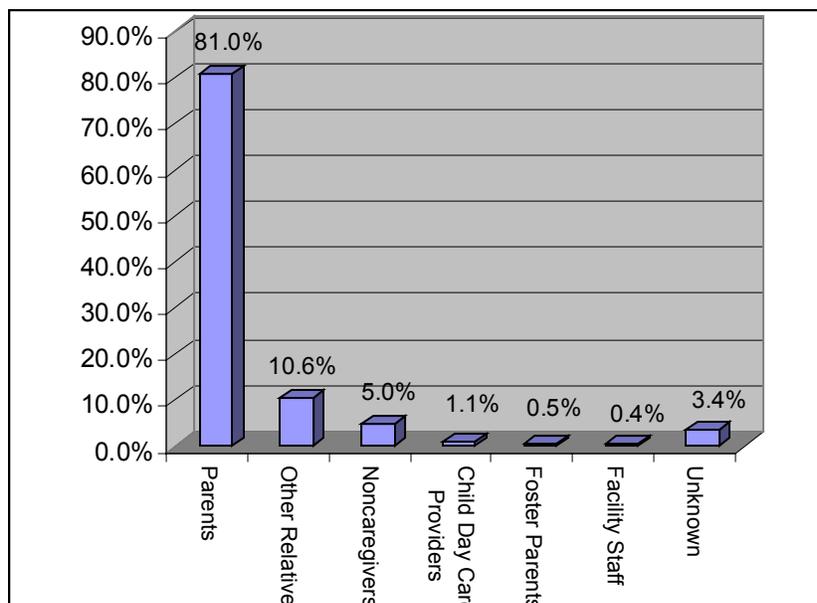
Types of Abuse

**Relationship of the Victim to the Perpetrator in Substantiated Cases of Abuse**

The overwhelming majority of perpetrators of violence against children were the parents of the children themselves, constituting 81% of the total population of child abuse/neglect perpetrators. Other relatives of the child made up 10.6 % of the total perpetrator population. Only 8.4% of perpetrators, therefore, were not related to the child they abuse/neglect in any way. The relationships of victims to perpetrators are summarized in Figure 3 (CWLA, 1997).

Among substantiated cases of maltreated children, 65% were victimized by a female and 54% by a male. The type of abuse was related to the gender of the perpetrator. Children were twice as likely to be neglected by females than males, 87% versus 43%, respectively. This is consistent with the fact that women still represent the vast majority of primary caregivers. Males were more likely to physically abuse children than females, 67% versus 40%, respectively. Sexual abuse was the category most strongly linked with males: 89% of sexually abused children were abused by males and 12% by females (Abbreviated NIS-3). According to NIS-3, girls were sexually abused three times more often than boys, while boys had a 24% greater risk of serious injury from abuse and were 18% more likely to be emotionally neglected.

**FIGURE 3: Relationship of Victims to Perpetrators**



## **The Relationship Between Family Structure/Income and Maltreatment**

Coming from a single-parent household was a grave risk factor for child maltreatment. Children in single-parent families had a greater risk of being harmed by physical abuse, emotional neglect, educational neglect, and sexual abuse. Furthermore, within single-parent homes, if the single parent was a father rather than a mother, the children had an approximately one to two thirds greater chance of being physically abused. Obvious explanations for why single parenting is such an aggravating factor in child maltreatment include the added stresses of being a single parent and having inadequate social, emotional and financial support (NIS-3). Family size was also an important consideration. The relationship was non-linear. Children from large families (with 4 or more children) were at greatest risk for educational and physical neglect. Children from medium-sized families (2-3 children) were at lowest risk for maltreatment. Children from large families were 3 times more likely than their peers from medium sized families to be educationally neglected and more than two times more likely to be physically neglected.

According to a DHHS study performed in 1993, between 40 and 50% of child maltreatment incidences occurred in families with income below the poverty level (less than 15% of all families have income in this range). Another 40 to 50% of maltreatment incidences occurred in approximately 35% of American families whose income is less than national median, but above the poverty level. Thus, approximately 90% of all child maltreatment incidences occur in families whose income is below the national median while less than 10% of maltreatment incidences occur in families whose income is greater than the national median. Compared to children in families whose income is above the national median, children in families below the median but above poverty level are five to seven times more likely to be abused; children in families below poverty level are 13 to 17 times more likely to be abused.

## **Consequences of Child Maltreatment**

### **Psychobiology of Maltreatment**

A detailed discussion of the psychobiology of maltreatment is beyond the scope of the present paper; therefore, only a brief summary of the psychobiological effects of maltreatment will be presented here. Maltreatment of children has been suggested to not only impair the normal development of the brain but also to have lasting effects on cognition, behavior, affect and social interaction (Perry et al., 1996). It is generally well accepted that the organizing brains of infants or young children are more malleable to experience than are mature brains. It is therefore not surprising that early traumatic events can have significant long lasting effects. In fact, early traumatic experiences have been shown to have chronic effects on several physiological systems, including certain neurotransmitter systems, neuroendocrine systems, and the immune system (Putnam and Trickett, 1997). Putnam and Trickett reported elevated 24-hour urinary catecholamines in sexually abused girls compared to controls. When corrected for height, only homovanillic acid levels were significantly different; however, there were trends for total catecholamine synthesis, metanephrine, and vanillylmandelic acid. With regards to neuroendocrine systems, significant dysregulation of the hypothalamic-pituitary axis (HPA) has been shown in sexually abused girls. Maltreated girls showed increases in cortisol secretion to minor stressors compared to controls. In addition, they showed significantly lower basal- and

CRF-stimulated ACTH levels as well as reduced ACTH responses. Their 24-hour urinary free cortisol levels did not differ from those of controls. Even though these data differ somewhat from those reported for combat-related PTSD, they are compatible with the overall finding of HPA dysregulation in PTSD (see below for details). In terms of immune function, DeBellis et al. have demonstrated a twofold increase of plasma antinuclear antibodies in abused subjects compared to controls. The presence of high antinuclear antibody levels is thought to reflect failure of the immune system to suppress autoreactive lymphocytes.

In adults, traumatic experiences have also been shown to affect neurotransmitter and neuroendocrine systems. Kosten et al. (1987) reported elevated 24-hour excretions of urinary norepinephrine and epinephrine in PTSD combat veterans, compared to patients with other psychiatric diagnoses. In support of these data, Perry et al. (1987) reported a down-regulation of alpha 2-adrenergic receptors in platelets of combat vets compared to normal controls. Moreover, yohimbine has been shown to precipitate panic attacks and flashbacks in PTSD patients. Yehuda et al. also found that dopamine levels were significantly correlated with intrusive flashbacks, avoidance, and hyperarousal symptoms in Vietnam veterans. Evidence for a role of serotonin in PTSD comes from a study that showed metacholorophenylpiperazine (m-CPP), a serotonin agonist, resulted in panic attacks and flashbacks in approximately one third of subjects. In addition, serotonin reuptake blockers have been reported to be effective in the treatment of PTSD. The opioid system has also been shown to be affected by traumatic experiences. Studies demonstrated that patients with PTSD developed opioid-mediated analgesia in response to a stimulus resembling the traumatic stressor, which correlated with a secretion of endogenous opioids equivalent to 8 mg of morphine (van der Kolk et al., 1989).

Data also support a role for the HPA axis in the pathophysiology of PTSD. To date, several studies have shown significantly lower urinary cortisol levels in trauma survivors with PTSD than in similarly exposed trauma survivors without PTSD and/or non-psychiatric comparison subjects. It is interesting to note that in studies of combat veterans and Holocaust survivors, cortisol levels were significantly associated with the severity of PTSD symptoms. The expected compensatory up-regulation of glucocorticoid receptors in response to decreased levels of cortisol have also been demonstrated in three studies of combat veterans and one study of adult survivors of childhood sexual abuse. Consistent with the findings of low cortisol and increased glucocorticoid receptor number, the cortisol response to dexamethasone was also shown to be enhanced in PTSD. The augmented cortisol response to dexamethasone in PTSD has been suggested to result from a reduced ability of dexamethasone to exert negative feedback inhibition on the release of CRF and ACTH. Reduced glucocorticoid receptor activity is likely to play a role in this negative feedback inhibition. Further evidence for negative feedback inhibition of the HPA axis comes from studies that have demonstrated increased CRF release in PTSD. It has further been hypothesized that the blunted ACTH response of CRF results from a decreased number of CRF receptors in the pituitary gland.

In conclusion, the previously discussed literature suggests that trauma, whether of childhood origin or adult origin, has similar effects on sympathetic nervous system activity and the HPA axis. Moreover, since studies of adult survivors of childhood sexual abuse have shown similar neuroendocrine and neurotransmitter abnormalities to those found in maltreated children (Stein

et al., Putnam), it is likely that the psychobiological effects of childhood trauma are pervasive and continue to have a negative impact on adult functioning.

## **Effects of Maltreatment in Childhood & Adolescence**

### **Psychiatric Sequelae of Maltreatment in Childhood & Adolescence**

The devastating consequences of child maltreatment are manifested in numerous facets of a child's life from decreased performance at school to diminished physical and mental health to increased deviant behavior. Multiply abused infants and toddlers often experience developmental delays across a broad spectrum, including cognitive, language, motor, and socialization skills (Culp, Heide, and Richardson, 1987). Research has also shown that a range of psychiatric symptoms and disorders are associated with early trauma, including depression, post-traumatic stress disorder, borderline personality disorder, substance use, suicidality, self-mutilation, somatization, sexual behavior problems, dissociative disorders, and criminal behavior (Trickett and McBride-Chang; Putnam; Herman et al.; van der Kolk et al., 1996). The section below highlights some of the consequences of early trauma and presents evidence from the child and adolescent maltreatment literature.

Table 1 illustrates the prevalence of psychopathology in maltreated and non-maltreated children. The results are presented for victims of sexual abuse, physical abuse, combined physical and sexual abuse, and controls. This table clearly shows that children who have been traumatized physically and/or sexually are at significantly increased risk for developing a variety of psychiatric disorders, including attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder, conduct disorder, major depression, dysthymia, separation anxiety disorder, bipolar disorder, phobias, obsessive-compulsive disorder, and PTSD. Similar results were found in a survey from an ongoing longitudinal study of 384 18-year old subjects from mostly white, working or lower middle income level families. Findings indicate that 43% experienced some form of trauma, and 6.3% of the total, or 14.5% of those experiencing trauma, were diagnosed with PTSD based on a DSM criteria survey (Giaconia et al., 1995). Tables 2 and 3 depict the prevalence of various psychiatric disorders and problem behaviors among the three groups of subjects in this study. The first group met criteria for PTSD, the second group had a trauma history but did not meet criteria for PTSD, and the third group had no history of trauma. Adolescents who met criteria for PTSD or had a trauma history showed a significantly increased prevalence of major depression, phobias, alcohol and drug dependence as well as multiple comorbid psychiatric diagnoses. Attempted suicide was 16 times more likely to occur in adolescents who met criteria for PTSD compared to adolescents with no trauma history (see Table 3).

Table 1.

| Diagnoses                      | ABUSE GROUPS |                |            |                 |            |             |            |               |
|--------------------------------|--------------|----------------|------------|-----------------|------------|-------------|------------|---------------|
|                                | Total<br>%   | Sexual (N=127) |            | Physical (N=43) |            | Both (N=34) |            | Control*<br>% |
|                                |              | Boys<br>%      | Girls<br>% | Boys<br>%       | Girls<br>% | Boys<br>%   | Girls<br>% |               |
| ADHD                           | 29           | 40             | 22         | 36              | 10         | 67          | 26         | 3-5           |
| Oppositional Defiant Disorder  | 36           | 46             | 22         | 56              | 20         | 64          | 47         | 6.5           |
| Conduct Disorder               | 21           | 44             | 11         | 21              | 10         | 67          | 21         | 3.9           |
| Major Depression               | 13           | 12             | 11         | 12              | 20         | 8           | 32         | 0.4-8.3       |
| Bipolar Disorders              | 9            | 4              | 9          | 9               | 20         | 0           | 21         | 1             |
| Dysthymia                      | 19           | 16             | 13         | 24              | 20         | 17          | 42         |               |
| Separation Anxiety/Overanxious | 59           | 44             | 58         | 48              | 100        | 59          | 79         | 2.9-4.6       |
| Phobic                         | 36           | 44             | 36         | 24              | 30         | 25          | 58         | 2.4-9.2       |
| Obsessive-Compulsive           | 14           | 0              | 14         | 18              | 20         | 8           | 27         | 0.5           |
| PTSD                           | 34           | 20             | 35         | 18              | 50         | 58          | 53         | >6            |

\*Based on various studies.

Source: Ackerman et al., 1998. Subjects included 62% outpatients, 25% inpatients, and 13% were referrals from local agencies.

Table 1: Prevalence of Psychiatric Disorders in Maltreated and Non-Maltreated Children

Table 2.

| Psychiatric Disorder           | Lifetime<br>% of Group | Current (1 Yr)<br>% of Group |
|--------------------------------|------------------------|------------------------------|
| <i>Major Depression</i>        |                        |                              |
| PTSD                           | 41.7                   | 29.2                         |
| Trauma Only                    | 9.2                    | 7.1                          |
| No Trauma                      | 5.9                    | 4.6                          |
| <i>Phobia</i>                  |                        |                              |
| PTSD                           | 29.2                   | 29.2                         |
| Trauma Only                    | 12.1                   | 10.6                         |
| No Trauma                      | 8.7                    | 7.8                          |
| <i>Alcohol Dependence</i>      |                        |                              |
| PTSD                           | 45.8                   | 37.5                         |
| Trauma Only                    | 31.4                   | 27.9                         |
| No Trauma                      | 16.6                   | 15.7                         |
| <i>Drug Dependence</i>         |                        |                              |
| PTSD                           | 25.0                   | 20.8                         |
| Trauma Only                    | 14.9                   | 12.8                         |
| No Trauma                      | 3.7                    | 1.8                          |
| <i>Two or More Disorders</i>   |                        |                              |
| PTSD                           | 45.8                   | 41.7                         |
| Trauma Only                    | 23.4                   | 21.3                         |
| No Trauma                      | 12.3                   | 9.6                          |
| <i>Three or More Disorders</i> |                        |                              |
| PTSD                           | 33.3                   | 20.8                         |

|             |     |     |
|-------------|-----|-----|
| Trauma Only | 7.1 | 3.5 |
| No Trauma   | 2.3 | 0.9 |

Table 2: Prevalence of Psychiatric Disorders in Maltreated and Non-Maltreated Children

Table 3.

| Risk Area   | % of Group |
|---|------------|
| <i>Clinical Range on Internalizing Problems<sup>^</sup></i> |            |
| PTSD  | 16.8       |
| Trauma Only   | DNA        |
| No Trauma   | 4.6        |
| <i>Clinical Range on Externalizing Problems<sup>^</sup></i> |            |
| PTSD  | 33.3       |
| Trauma Only   | 13.5       |
| No Trauma   | 4.1        |
| <i>Attempted Suicide</i>                                    |            |
| PTSD  | 16.7       |
| Trauma Only   | 5.7        |
| No Trauma   | 1.8        |
| <i>Rated Health as "Fair or Poor"</i>                       |            |
| PTSD  | 37.5       |
| Trauma Only   | 21.3       |
| No Trauma   | 10.0       |
| <i>&gt;= 3 Sick Days/Month in Past Year</i>                 |            |
| PTSD  | 25.0       |
| Trauma Only   | 12.2       |
| No Trauma   | 5.1        |
| <i>Suspended/Expelled in Past Year<sup>*</sup></i>          |            |
| PTSD  | 25.0       |
| Trauma Only   | 37.6       |
| No Trauma   | 26.9       |
| <sup>*</sup> Not Statistically Significant                  |            |
| <sup>^</sup> Based on Youth Self Report (YSR)               |            |

Table 3: Prevalence of Problem Behaviors in Maltreated and Non-Maltreated Children

Kendall-Tackett et al. (1991) reported that in a sample of sexually abused children, 68% exhibited anxiety symptoms, 41% had depressive symptoms, 31% showed regressive symptoms, and 36% engaged in inappropriate sexual behaviors. Wolfe et al. (1994) showed that in a sample of 90 abused children and adolescents 80% met DSM-based PTSD reexperiencing criteria, 64% met PTSD avoidant criteria, 67% met PTSD hyperarousal criteria, and 49% met PTSD criteria. Based on Wave II (new cases of abuse and neglect) of NIMH's Epidemiologic Catchment Area Study, 15% of abused children, 21% of neglected children, and 6% of the control group were found to have substance abuse disorders (Chaffin, Kelleher, and Hollenberg, 1996). Clark et al.

(1997) also found elevated risks for alcohol dependence and alcohol abuse among victims of physical and sexual abuse.

The previously discussed literature clearly points out that traumatized children receive a multitude of psychiatric diagnoses as a result of the great range of symptoms they exhibit. However, none of these diagnoses allow the behavioral and psychiatric symptoms to be viewed in the context of the traumatic experience. Putnam (1988) has suggested that a wide range of symptoms, including depression, aggression, hypersexuality, suicide, self-mutilation (and risk taking), dissociation, problems with affect regulation, somatization, impulsivity, hyperactivity and attentional problems, low self-esteem, and other disturbances of self-image are among the more common symptoms reported in maltreated children. Unfortunately, however, the DSM not only includes an alternate set of developmentally relevant symptoms for children and adolescents, nor does it capture the wide range of symptoms patients with chronic abuse histories often demonstrate. Trauma researchers have recently proposed that a diagnosis of complex PTSD/ Disorder of Extreme Stress Not Otherwise Specified (DESNOS) be added as a new diagnostic category (van der Kolk et al., 1996). This diagnosis was developed to capture the range of symptoms patients with histories of chronic maltreatment often exhibit. The diagnosis consists of seven different problem areas which research has shown to be associated with early, chronic interpersonal trauma (REF): (1) problems with affect regulation, including difficulty with modulation of anger and self-destructiveness, (2) alterations in attention and consciousness leading to amnesias and dissociative episodes, (3) alterations in self-perception, including chronic feeling of guilt and shame, (4) difficulties with interpersonal relationships, including problems with trust and feelings of intimacy with other people, (5) somatization symptoms for which no medical problem can be found, and (6) alteration in the systems of meaning, including chronic feelings of hopelessness.

Distinguishing the symptoms resulting from prolonged interpersonal trauma from single traumatic events such as car accidents or disasters may have important implications for the treatment of PTSD. PTSD patients who also have a diagnosis of DESNOS may be treatment resistant to conventional treatment such as prolonged exposure and cognitive restructuring (Ford and Kidd, 1998). It therefore becomes crucial to acknowledge the symptoms of complex PTSD in order to make use of appropriate treatment strategies (see also section on treatment implications).

### **Effects of Maltreatment on Learning/Occupational Functioning**

Research has shown that maltreated children have more behavioral problems and perform significantly worse in school (Daro, 1988). Thirty percent of abused children have been reported to have some type of language or cognitive impairment, over 50% have difficulties in school, including poor attendance and misconduct, 22% have a learning disorder, and approximately 25% require special education services (Caldwell, 1992; Giaconia, 1995). These data are supported by Culbertson and Willis (1988), who demonstrated that abused children experience developmental delays in many areas, including cognitive and language skills. Neglected boys have also been reported to have lower IQ's than physically abused and nonmaltreated groups of boys, and physically abused and neglected girls have been shown to have lower IQ's than nonmaltreated girls (Rogeness, et al., 1986). With regards to occupational functioning during

adulthood, a survey found that incest victims were twice as likely as nonvictims to be unemployed. Additionally, women who reported experiencing serious trauma were more likely to have “negative socioeconomic outcomes” (Russell, 1986), and maltreated children showed higher rates of disability after their maltreatment (Sullivan and Knutson, 1998).

### **Effects of Maltreatment on Criminal Behavior**

Abused and neglected children have been reported to have a higher likelihood of arrests for delinquency, adult criminality, and violent criminal behavior compared to matched controls (Widom and Maxfield, 1997). In a prospective study using a matched control group, Widom and Maxfield (1997) found that maltreated children were 1.8 times more likely to be arrested as a juvenile, 1.5 times more likely to be arrested as an adult, and 1.35 times more likely to be arrested for a violent crime. Results have also shown that the majority of juvenile offenders are arrested again as adults, although adult arrest rates for juvenile offenders differ slightly between maltreated and nonmaltreated groups, 71% for the maltreated group versus 66% for the nonmaltreated group (Widom and Maxfield, 1997). Maltreated children also have more involvement with the juvenile justice system (Lewis et al., 1989), and research has shown that 20% of maltreated children are convicted for a serious juvenile crime (McCord, 1983 and Lewis et al., 1989). It is also important to note that a strong correlation has been reported to exist between delinquent behavior and later criminal behavior (Loeber and LeBlanc, 1990).

### **Effects of Child Maltreatment in Adulthood**

#### **Psychiatric Sequelae of Child Maltreatment in Adulthood**

There is now substantial evidence that people with histories of childhood abuse and neglect suffer from profound and pervasive psychiatric disturbances during adulthood (McCord; Roesler & McKenzie; McCauley et al.; Widom, Levitan). McCord conducted a 40-year follow up study of 97 abused or neglected boys. In this group, 44 (45%) had become criminal, alcoholic, mentally ill, or had died before reaching age 35 (McCord, 1983). Roesler and McKenzie (1994) used standardized symptom measures to determine the effect of childhood trauma experiences on adults sexually victimized as children. One hundred eighty-eight sexually abused individuals were tested for mean scores for depression, self-esteem, sexual dysfunction, PTSD symptoms, and dissociation. Even after controlling for nonsexual-abuse trauma, sexual abuse contributed significantly to all symptom measures with the most change in variance noted for dissociation (20.5%). In a study including 424 women with a history of childhood abuse, a clear association between early traumatic events and adult psychological problems was also established. Women who had been physically and/or sexually abused as children had higher scores for both depression and anxiety, lower scores for self-esteem, and were more likely to have attempted suicide than women who had not been traumatized as children (McCauley et al., 1997). Similar findings were reported by Levitan et al. (1998) who demonstrated that a history of physical or sexual abuse was associated with major depression with reversed neurovegetative features, including increased appetite, weight gain, and hypersomnia. A strong relationship between mania and childhood physical and sexual abuse was also demonstrated.

Widom (1999) examined the extent to which childhood abuse and neglect increase a person's risk for subsequent PTSD and determined whether the relationship to PTSD persists despite controls for family, individual, and lifestyle characteristics associated with both childhood victimization and PTSD. Results indicated that childhood victimization is associated with increased risk for lifetime PTSD. Approximately one third of childhood victims of sexual abuse, physical abuse and childhood neglect met DSM criteria for lifetime PTSD.

The capacity for affect-regulation has often been shown to be impaired in patients with chronic abuse histories. Problems with affect-regulation are often associated with severe, rapid fluctuations in mood, ranging from overwhelming feelings of anger, despair, and hopelessness to feelings of calmness in a matter of hours. Patients exhibiting such difficulties commonly experience minor stressors as overwhelming and engage in self-destructive behaviors such as self-injury, attempting suicide, and bingeing, purging, or starving themselves in an attempt to gain mastery over their fluctuations of affect (van der Kolk, 1991; Garner and Garfinkel; Herzog et al.; Deep et al., 1999). It is thus not surprising that childhood trauma has been associated with the development of Borderline Personality Disorder (Herman et al., 1989; Ogata et al., 1989), a disorder that often involves chronic affect dysregulation manifested by severe fluctuations in mood.

Although the connection between early childhood victimization and subsequent alcohol use has led to contradictory findings (Bensley et al., 1999; Widom et al., 1995), data have shown a high prevalence of positive trauma histories in intravenous drug users (IVDU) (Medrano et al., 1999). Medrano et al. estimated the prevalence of positive trauma histories in a community sample of IVDU women for five subsets of childhood trauma, including emotional abuse or neglect, physical abuse or neglect, and sexual abuse and compared demographic variables between the abused and nonabused groups. Of the 181 women who completed the Childhood Trauma Questionnaire (CTQ), 109 (60.2%) were sexually abused, 100 (55.2%) were physically abused, 83 (45.9%) were emotionally abused, 151 (83.4%) were emotionally neglected, and 108 (59.7%) were physically neglected.

### **Cycle of Violence**

Data have shown that 20% of parents who were abused as children go on to abuse their own children (Strauss et al., 1980). Seventy-five percent of perpetrators of child sexual abuse reported that they had been sexually abused themselves (Romano and De Luca, 1997). Various studies have demonstrated that men who have experienced or witnessed physical abuse in childhood are more likely to act violently against their female partners (Fagan, Stewart, and Hanson, 1983; Hamberger and Hastings, 1991; Hotaling and Sugarman, 1986), and physical abuse and neglect are associated with the highest rates of arrest for violent offenses (Widom and Maxfield, 1997) as well as with the development of antisocial personality disorder (Luntz and Widom, 1994). Maxfield and Widom (1996) reported that by age 32 years, almost half of the victims of abuse and neglect were arrested for a nontraffic offense. These data clearly indicate that childhood abuse and neglect perpetuate violence in adulthood as well as in generations to come and thus promote a cycle of violence.

## **Effects of Maltreatment on General Health**

Daro (1988) has shown that 30% of abused children have chronic health problems, and 3.2% of abused children require hospitalization for serious injuries secondary to child abuse. In a survey of patients from a pediatric intensive care unit, 1.4% of admissions were due to child abuse, 17% of deaths were due to child abuse, and child abuse patients had the highest "Severity of Illness" scores (Irazuzta, 1997). Felitti et al. (1998) reported that persons who have experienced 4 or more categories of child maltreatment and/or household dysfunction are more likely to engage in health-risk behaviors and have poorer adult health outcomes during adulthood than those reporting fewer of these experiences. The group of people who experienced significant maltreatment showed a 4-12 times greater risk for alcoholism, depression, drug abuse, and suicide attempts, a 2-4 times greater risk for smoking, poor self-rated health,  $\geq 50$  sex partners, and sexually transmitted disease, a 1.4-1.6 times greater risk for physical inactivity and obesity, and a 1.6-2.9 times greater risk for ischemic heart disease, cancer, chronic lung disease, skeletal fractures, hepatitis, stroke, diabetes, and liver disease. Moreover, women with sexual abuse histories compared to those without abuse histories have been shown to be at increased risk for suffering from chronic pelvic pain (Walker et al., 1988), gastrointestinal problems (Drossman, 1992; Drossman et al., 1982, 1990, 1994; Leserman et al. 1996; Scarinci et al., 1995) and neurological complaints, including headaches and backaches (Berkowitz, 1998). Lesserman et al. (1988) also demonstrated that women with severe abuse histories have worse physical health, greater pain, greater number of non-GI somatic symptoms, greater number of days disabled by illness, and greater number of physician visits and greater functional distress.

Given the multitude of medical problems associated with child maltreatment, it is not surprising that health service utilization was reported to be 2.5 times greater in college women who reported childhood sexual abuse compared to the control group (Berkowitz, 1998). Moreover, a recent study demonstrated that women who reported sexual abuse had median annual health care costs that were \$245 greater than costs among women who did not have a history of abuse (Walker et al., 1999). The authors propose that although the absolute cost differences per year per woman were relatively modest, the large number of women in the population with sexual abuse histories suggests that the total costs to society are substantial.

## **Summary and Conclusions**

In summary, child abuse and neglect have been serious and costly problems in America for many years. Each year over 3 million children are reported abused and/or neglected. As described in the present paper, childhood trauma has been shown to have serious consequences. It has been demonstrated that a range of psychiatric symptoms and disorders during child- and adulthood, including depression, post-traumatic stress disorder, borderline personality disorder, substance use, suicidality, self-mutilation, somatization, sexual behavior problems, dissociative disorders, and learning disorders are associated with early traumatic experiences. Moreover, criminal behavior, disturbances in learning and occupational functioning, as well as general health difficulties have been shown to be significantly increased in populations that experienced childhood trauma. Given the considerable impact of childhood abuse and neglect on emotional well-being and behavior throughout the life span, it becomes crucial to view the emerging behavioral and psychiatric problems in the context of the traumatic experience. Only if the

emerging symptoms and disorders are treated in the context of the traumatic experience can the dilemmas be treated in an effective and efficient manner.

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