Abuse Type and Its Effect on Adolescents in Residential Treatment: A Literature Review

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Abstract
This review addresses the influence of abuse type on the emotional and behavioral issues of adolescents who receive treatment in a residential or inpatient setting. The types of abuse examined include physical, sexual, and emotional abuse. The impact of abuse on the adolescents is discussed in the following categories: conduct disorder, depression, anxiety, posttraumatic stress, psychosis, substance use, sexuality, aggression, social, school, and sleep. Additional abuse characteristics, including ethnicity, household characteristics, relationship with and number of abusers, time and frequency factors, number of abuse experiences, and severity, were considered. The findings of the review indicate that each form of abuse has different significant effects on adolescents in residential treatment centers.

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ABUSE TYPE AND ITS EFFECT ON ADOLESCENTS IN RESIDENTIAL TREATMENT: A LITERATURE REVIEW

A THESIS

SUBMITTED TO THE FACULTY

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ABSTRACT

This review addresses the influence of abuse type on the emotional and behavioral issues of adolescents who receive treatment in a residential or inpatient setting. The types of abuse examined include physical, sexual, and emotional abuse. The impact of abuse on the adolescents is discussed in the following categories: conduct disorder, depression, anxiety, posttraumatic stress, psychosis, substance use, sexuality, aggression, social, school, and sleep. Additional abuse characteristics, including ethnicity, household characteristics, relationship with and number of abusers, time and frequency factors, number of abuse experiences, and severity, were considered. The findings of the review indicate that each form of abuse has different significant effects on adolescents in residential treatment centers.

Key Words: physical abuse, sexual abuse, emotional abuse, neglect, adolescents, residential treatment
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Introduction

Child and adolescent abuse is one of the most prominent issues facing today’s youth, as evidenced by the 3.2 million referrals in 2007 for child abuse and neglect in the United States (U.S. Department of Health & Human Services, 2009). Child Protection Services determined that of those 3.2 million referrals, 10.8 percent experienced physical abuse, 7.6% experienced sexual abuse, 4.2% experienced emotional abuse, and 59.0% experienced neglect. Many of the adolescents who have experienced at least one of these forms of maltreatment eventually get referred to a residential treatment center (Connor, Doerfler, Toscano, Volungis, & Steingard, 2004; Gore-Felton, Koopman, McGarvey, Hernandez, & Canterbury, 2001; Miller, 2002).

Connor et al. (2004) sought to systematically evaluate a sample of youth in a residential treatment center in order to describe characteristics of physical and sexual abuse rates. In the study, physical and sexual abuse was characterized as a documented legal charge against the caregiver because of suspected abuse, a court appearance due to abuse charges, or a supported protective services evaluation of abuse as mandated by state child protective service law. In their sample of 397 children with an average age of 13.44 (SD = 2.64), 47% of the children had been physically abused, 33% had been sexually abused, and 24% had been both physically and sexually abused. About 56% of the youth from this population have experienced physical and/or sexual abuse. They found that compared to boys, girls were more likely to have experienced physical abuse (60% vs. 43%), sexual abuse (64% vs. 27%), and both physical and sexual abuse (46% vs. 18%). Only about 22% of the girls from this population had not experienced neither physical nor sexual abuse, compared to 48% of the boys. They also found that 59% of the girls and 43% of the boys had been abused by a parent or caregiver, while 19% of the girls and 7% of the boys were abused by someone other than a family member. These statistics were comparable
to other studies involving adolescents of a similar age and thus a likely overview of abuse rates (Baker, Archer, & Curtis, 2007; Haviland, Sonne, & Woods, 1995). More specifics regarding prevalence rates will be discussed later in this review.

Prevalence of emotional abuse and neglect are not as consistent in the research due to a variety of different definitions used to describe such forms of maltreatment (U.S. Department of Health & Human Services, 2009). Further information on the definitions and limitations of emotional abuse and neglect is in the Definitions section of this review.

Even for youth without abuse or neglect history, adolescence is already a developmental stage that consists of much confusion (Erikson, 1997). Those in search of their own identity are conflicted with challenges that may involve poverty, societal pressure, non-abuse family issues, substance experimentation, delinquency, and many other challenges. These issues can have a strong impact on the emotional well being of teenagers. It is estimated that between 30% and 85% of children who live in out of home placements experience significant emotional disturbances (Gardner, 2001).

Abuse and neglect histories can cause or exacerbate many of the emotional and behavioral issues adolescents may have (Doerfler, Toscano, & Connor, 2009; Gore-Felton, Koopman, McGarvey, Hernandez, & Canterbury, 2001). The results of these studies indicated differences between male and female adolescents regarding internal and external responses to differing abuse histories. Both studies found that different abuse types can cause different proportions of emotional and behavioral problems. Though, the problems faced by adolescents who experienced physical or sexual abuse were more challenging than those who experienced emotional abuse only (Gore-Felton et al., 2001).
Copeland, Keeler, Angold, and Costello (2007) found that among potentially traumatic events, those who experienced sexual or physical trauma were two of the most likely events to lead to posttraumatic stress disorder (PTSD) or related symptoms among adolescents. Sexual trauma was the most likely to have subclinical PTSD and was second to violent trauma in likeliness to have painful recall of the event. Physical abuse was a subcategory of violent trauma, and those who experienced physical abuse also had higher subclinical PTSD than most other trauma types. These results further indicate psychological disturbances for abused youth.

Considering the high prevalence rates of abuse among the youth in residential treatment and the emotional and behavioral disturbances associated with the challenges of finding an identity during adolescents, it is important to analyze the relationships between such experiences. There have been plenty of studies on physical and sexual abuse, as well as a moderate amount of studies on emotional abuse and neglect, including literature reviews on each. However, there is a lack of reviews that cover similarities and differences among physical, sexual, and emotional abuse, and neglect all within one literature review. The purpose of this review is to examine the relationship of emotional and behavioral issues regarding differences in abuse and neglect experiences of adolescents in residential treatment.

Definitions

This review will discuss several topics that have definitions that vary among previous research. Thus, it is important to clarify the definitions for certain terms used within this study. Throughout this review, exceptions to the definitions listed in this section will be specifically noted.

The term “residential treatment” is a term that generally refers to delivering therapeutic services at a facility away from a child or adolescent’s home, often for those with emotional or
behavioral problems. Bates, English, and Kouidou-Giles (2007) argued that the varying degree of restrictiveness on what is considered residential treatment makes it difficult to define consistently across studies what constitutes “residential treatment.” For example, the term “residential treatment center” is sometimes used synonymously with “inpatient psychiatric hospital,” while other times it is not. For the purpose of gathering sufficient information, the present review includes treatment at inpatient psychiatric hospitals in the definition of residential treatment. In this review, “residential treatment” refers to an out-of-home facility where a child or adolescent remains for a minimum of 24 hours and receives mental health services for emotional and/or behavioral problems.

Sexual abuse and physical abuse are usually defined by either documented reports or by subjective reports of the residential client or guardian. Some researchers define each abuse very specifically by listing out particular experiences that an adolescent may have endured (e.g., punching or thrown down stairs for physical abuse, or genital fondling or an adult exposing self to child for sexual abuse). For sexual abuse, age requirements of the abuser and victim also vary across the research. Most research either has no age requirement and specifies the abuse as unwanted sexual contact or specifies that the abuser must be at least five years or more older than the victim. The definitions for both sexual and physical abuse in this review are broad for the purpose of comparing different studies. The term “sexual abuse” in this review means at least one documented or reported incident of unwanted or coercive sexual contact or exposure, sexual contact or exposure to a child by a family member, or sexual contact or exposure to a child less than 18 years of age by someone five or more years older. “Physical abuse” in this review refers to at least one documented or reported incident of intentional infliction of physical pain beyond spanking that leads to bruising, welts, or more severe physical damage to a child.
less than 18 years of age by someone five or more years older. Specific differences in definitions from one study reviewed to another that possibly caused major inconsistencies in findings will be indicated.

Emotional abuse and neglect have even more variety among definitions in research than both physical and sexual abuse. Some researchers include neglect as a component of emotional abuse, while others view neglect and emotional abuse as separate forms of abuse. Emotional abuse is also frequently includes demeaning remarks, excessive demands, hatred by the parent towards the child, locking the child in a small room or closet, or exposing the child to marital violence. Neglect often refers to deprivation of basic necessities for living (e.g., food, clothing), deprivation of necessary medical or mental health services, failure to promote academic success, intentional social deprivation, or withdrawal of love. In addition to lack of consistent definitions in the research, there has also simply been a lack of research regarding emotional abuse and neglect. Courtney, Kushwaha, and Johnson (2008) stated, “Historically, the major focus of childhood maltreatment research has been on the adverse effects of sexual and physical abuse.”

Due to the limited research on emotional abuse and neglect, the two forms of abuse are grouped together in this review under the term “emotional abuse,” unless specifically noted as separate. In this review, the term “emotional abuse” refers to a pattern of verbally demeaning remarks, excessive demands, hatred towards the child, locking the child in a small room or closet, or exposing the child to marital violence, as well as neglect in the form of basic living, medical, mental health, educational, social, and emotional deprivation.

Many studies refer to abuse in more broad terms. The term “maltreatment” is used in this review to indicate when all of the above abuse types are being discussed.

Abuse characteristics
There are many factors to consider besides what type of abuse occurred when looking at the effects maltreatment has on adolescents, such as ethnicity, household characteristics, relationship to the offender, the number of abusers, age of onset, duration, frequency, age of last abuse, number of occasions abused, and severity of abuse.

**Ethnicity**

Much of the research involved mostly Caucasian participants; however, some articles did include ethnicity in the results. Though several studies involving maltreatment found differences across cultures, almost all of the studies examined for this review found no interaction between ethnicity and maltreatment (Baker et al., 2007; Gore-Felton et al., 2001; Kumar, Steer, & Deblinger, 1996; McClellan et al., 1997; Monane, Leichter, & Lewis, 1984; Naar-King, Silvern, Ryan, & Sebring, 2002). These studies collectively indicate that maltreatment was unrelated to neither prevalence rates nor psychological disturbances. Riggs, Alario, and McHorney (1990) were the only researchers who found interactions between race and abuse. The only interactions they found were that adolescents who were older, white, and reported physical abuse were more likely to drink alcohol than their peers; and physically abused, white females were more likely to smoke cigarettes than their peers.

**Household Characteristics**

Household characteristics (e.g., disrupted families, out-of-home placements, and lower socioeconomic status) that are not directly related to child maltreatment or the parent-child relationship were found to be related to maltreatment in some studies, while not in others. McClellan et al. (1997) found that adolescents who were sexually abused were more likely to come from disrupted families and lower socioeconomic backgrounds. They also found that girls with sex abuse histories were more likely to have family histories of substance abuse. McClellan
et al. found no other significant relationships with abuse when looking at disrupted families, out-of-home placements, and lower socioeconomic status. Herrera and McCloskey (2001) found that adolescents who had been physically abused or emotionally abused, by way of witnessing marital violence, were more likely to be referred to juvenile court if they come from a lower income family. In contrast, the study by Cohen et al. (1996) indicated that there was no relationship between abuse and socioeconomic status, family history of psychiatric illness, or family history of suicidal behavior. Likewise, Adams, McClellan, Douglass, McCurry, and Storck (1995) found that behaviors of maltreated youth were not related socioeconomic status or marital discord.

**Relationship with and Number of Abusers**

The relationship adolescents have with their abusers and the number of abusers both affect youth. As mentioned earlier, Connor et al. (2004) found that 59% of girls and 43% of boys physically or sexually abused had been abused by a parent or caregiver, while 19% of girls and 7% of boys were abused by someone other than a family member. Other studies supported the idea that perpetrators are predominantly parents or caregivers, with most being fathers and stepfathers (Adams et al., 1995). Haviland et al. (1995) found that for physical and sexual abuse, most abusers were family members (86.5%) who were the child’s parent or stepparent (62.2%). Regarding physical abuse, Kaplan et al. (1998) found that the abusers were 73% biological fathers, 24% biological mothers, and 12% stepfathers. In 11% of those cases, there were multiple abusers within the family. Additionally, physical abuse from fathers correlated with physical abuse from mothers for both male and female (Muller & Diamond, 1999).

Results from Naar-King et al. (2002) contradicted the idea that parents and family members were the most common sexual abusers, but was consistent with previous studies
regarding physical abuse. For those who were sexually abused, 23.4% were abused by a person from the immediate family, 14.1% by extended family, 50.0% by somebody outside of the family, and 12.5% by multiple people. For those who were physically abused, 82.0% were abused by a member of the immediate family, 11.3% by somebody outside of the family, and 6.6% by multiple people.

Interestingly, Sansonnet-Hayden et al. (1987) found that within their study, every child who had been sexually abused for over a year was abused by a family member, while every child abused only once or repeatedly for less than a year was abused by a stranger. Though the sample was not large enough to determine significance, it is an intriguing pattern that should be examined. This is also a potential explanation of differences among relationships to sexual abusers.

Relationship to the perpetrator also differed by gender (Kumar et al., 1996). Unsurprisingly, girls were more likely to be abused by their father or stepfather than boys. Compared to girls, boys were more likely to be abused by their mother or stepmother.

Of the girls who reported sexual abuse in Kumar et al.’s (1996) study, all of them reported multiple types of abusers (Kumar et al., 1996). Most were abused by a male (90%), 58% were abused by a relative, and 32% by a non-relative adult.

Of the boys, only 12% \((N = 6)\) reported sexual abuse, and all of them had been abused by only 1 person each (Kumar et al., 1996). Two of the boys had been sodomized by their fathers, one had been sodomized by a brother who was 2 years older, one was sodomized by a non-relative male who 2 years older but under the age of 18, and the other two boys had intercourse with non-relative adult female.
PTSD reaction scores of physically and sexually abused adolescents did not differ between residentially treated adolescents with parent or non-parent abusers (Haviland et al., 1995). Differences in relationship to the abuser did not create differences in anxiety, depression, reality testing, insecure attachment, or egocentricity. For adolescents with parent rather than non-parent abusers, alienation and social incompetence scores were higher. Age of onset and relationship to the abuser interacted and exacerbated alienation and social incompetence issues, where combining younger age of first abuse and being abused by a parent rather than non-parent increased such issues.

Friedrich et al. (1984) indicated that being sexually abused by an emotionally close perpetrator led to more exhibiting of internalizing and externalizing behaviors. Externalizing sexual behavior was found to be positively correlated with the number of abusers. Sexual behavior was correlated with closeness of the perpetrator, where the closer the adolescent was to the abuser, the more sexualized his or her behavior. Supporting this idea, it was discovered that boys sexually abuse by their mother or stepmother were likely to have sexually inappropriate behaviors (McClellan et al., 1997). The number of abusers was also predictive of sexualized behavior (Friedrich et al., 1984).

In contrast, Adams et al. (1995) indicated that being sexually abused by somebody other than father or stepfather was predictive for hypersexual behaviors. Adams et al. found other results that were not necessarily contradictory to Friedrich et al. (1984). They found the number of sexual abusers and being abused by somebody other than a sibling were all specific predictive variables for exposing variables. For victimizing behaviors, a higher number of sexual abusers was predictive. Lastly, Adams et al. indicated that experiencing physical abuse by somebody other than a parent was predictive of hypersexual behaviors.
Muller and Diamond’s (1999) examined the predictability of aggressiveness for boys and girls based on physical abuse from mothers and fathers. Their results indicated that abuse from either parent predicted aggressive behavior in both males and females; however, physical abuse from one’s mother was not predictive of aggression in males while they were still children. Experiencing physical abuse by both parents was more predictive of aggression than abuse by just one parent. All of Muller and Diamond’s significant findings were the same in parent versus children reports.

*Time and Frequency Factors*

Several significant results were found indicating that the younger an adolescent was when abuse began, the higher chances they would have psychological disturbance. Depression, anxiety, alienation, egocentricity, and social incompetence were all negatively correlated with age of onset (Haviland et al., 1995). Unfavorable alienation and social incompetence scores were exacerbated by the interaction of younger age of onset and relationship to the abuser, where the abuser was a parent rather than a non-parent. Age of onset also interacted with abuse type regarding anxiety scores, where sexual abuse and younger age of first abuse related to higher anxiety scores. Additionally, McClellan et al. (1997) reported that those with inappropriate sexual behaviors were likely to have been younger at the time of their first sexual abuse experience. Psychological disturbances that were found unaffected by the age of first abuse experience include PTSD severity and distortions in reality testing (Haviland et al., 1995).

Regarding gender and age of onset, there were no differences in age of onset for physically abused males and females; however, there was a significant difference found in age of onset regarding sexual abuse by Naar-King et al. (2002) while there were no differences found in age of onset regarding sexual by Kumar et al. (1996). Overall, the average age of onset for both
physical and sexual abuse tends to range anywhere between 6 and 12 years of age depending on the population sampled (Haviland et al., 1995; Krakow et al., 2002; Kumar et al., 1996; Naar-King et al., 2002; Sansonnet-Hayden, Haley, Marriage, & Fine, 1987), and is thus fairly inconsistent. No age of onset result were found regarding emotional abuse. The only emotional abuse information related to timing was that neglect during ages 4 through 6 and 7 through 12 were predictive for hypersexual and victimizing behaviors, respectively (Adams et al., 1995). This potentially is due to emotional abuse being commonly viewed as a pattern of events rather than a distinct event, thus an exact onset time may be difficult to record.

The duration and frequency of abuse also is an important factor in maltreatment of the youth. Duration refers to the time elapsed between first time abuse occurred and the last time abuse occurred, while frequency refers to how often abuse occurred for the victim. Regarding gender, duration was usually longer in females than males for both physical and sexual abuse; however, there was no statistically significant difference in frequency of abuse between males and females (Kumar et al., 1996; Naar-King et al., 2002). The average duration of sex abuse for boys according to Kumar et al. (1996) was 568.83 days (SD = 986.66) and the average duration for girls was 729.25 days (SD = 960.08). Combining those numbers, the average duration of abuse was about 1.5 years. However, Haviland et al. (1995) found dramatically different statistics when looking at physical and sexual abuse, with the average duration being 5.8 years (SD = 3.6) and 89.2% experiencing chronic abuse, which was not defined.

When sexual abuse was occurring, the frequency found by Naar-King et al. was reportedly at least weekly 15.4% of the victims, 1 to 4 times per month for 4.6% of the victims, 1 to 12 times per year for 13.8% of the victims, and 1 to 2 times total for 66% of the victims. They found the frequency of physically abused adolescents were at least weekly for 37.7% of the
victims, 1 to 4 times per month for 23.6% of the victims, to 12 times per year for 21.7% of the victims, and 1 to 2 times total for 17% of the victims.

In sexually abused children, both duration and frequency were found to be positively correlated with internalizing behaviors, or psychological disruptions within the mind that are not necessarily acted out (e.g., depression, somatization, withdrawal), and externalizing behaviors (e.g., acting out, delinquent, aggressive behaviors; Friedrich, Urquiza, & Beilke, 1984). Girls who were frequently sexually abused by an emotionally close perpetrator were especially likely to exhibit internalizing behaviors, while boys who were frequently sexually abused by an emotionally close perpetrator were especially likely to exhibit externalized behaviors.

However, Kumar et al. (1996) found that sex abuse characteristics, including duration and frequency, were not related to scores on the Beck Anxiety Inventory (BAI; Beck & Steer, 1993a), the revised Beck Depression Inventory (BDI; Beck & Steer, 1993b), and the Achenbach Youth Self-Report (YSR; Achenbach, 1991a). These results contradict those of Friedrich et al. (1984) because they indicate that duration and frequency have no effect on internalizing or externalizing behaviors. Likewise, Haviland et al. (1995) found no relationship between duration nor frequency with depression, anxiety, PTSD severity, distortions in object relations, or distortions in reality testing. After controlling for physical abuse, Naar-King et al. (2002) also found that duration and frequency did not predict internalizing or externalizing symptoms among the participants. Thus, updated research seems to collectively indicate contrary to previous findings that duration and frequency increases internalizing and externalizing.

Regarding sexual behavior, Friedrich et al. found that duration and frequency were positively correlated with increases in sexualized behavior. Sexualized behavior was determined using six items of sexual behavior on the Child Behavior Checklist (e.g., #59 “Plays with own
sex parts in public”; Achenbach & Edelbrock, 1983). McClellan et al. (1997) also found relationships between frequency and sexual behavior. They found that those who experienced chronic sexual abuse, defined as multiple abuse episodes over a six month period, were more likely to exhibit inappropriate sexual behaviors, such as hypersexuality (i.e., flirtatious and/or inappropriate grabbing or touching of others), exposing (i.e., public masturbation and/or self exposure), and victimizing (i.e., molestation, incest, and/or rape). Rates of chronic abuse also correlated specifically with victimizing behaviors and sexually reactive behaviors. Similarly, Adams et al. (1995) found that 79% of children with hypersexual behaviors, 87% with exposing behaviors, and 83% with hypersexual, exposing, and victimizing behaviors had higher rates of chronic sexual abuse.

After controlling for sexual abuse experience, Naar-King et al. (2002) found that longer duration of physical abuse predicted more depression and anxiety. Physical abuse frequency was not associated with depression and anxiety.

Compared to duration and frequency, time elapsed since last abuse had similar results. Both internalizing and externalizing behaviors were negatively correlated with time elapsed since last sexual abuse episode (Friedrich et al., 1984), meaning that as time goes on since the last time an adolescent is abused, internalizing and externalizing problematic behaviors decrease. Likewise, Friedrich et al. found sexualized behavior also reduces as time elapses since last abuse episode. Results by Copeland et al. (2007) concurred with Friedrich et al., indicating that subclinical PTSD and painful recall were more severe in adolescents who had experienced various forms of sexual and physical abuse within the past 3 months compared to those who had experienced abuse prior to the last 3 months.
Feiring et al. (2000) examined thoughts about abuse and social factors over time. From the time of the discovery of sexual abuse to the follow up one year later, there were significant reductions in general shame, general self-blame attribution style, and shame about the abuse. There was also no difference in the number of friends or the satisfaction of support between the two times. However, over time there was an improvement over time in the adolescents’ perceptions of peer acceptance, close friendship, and romantic appeal. The adolescents at both times viewed themselves as more competent in descending order from romantic appeal, peer acceptance and then close friendships. At both times, there was a significant different between romantic appeal and close friendships. From time 1 to time 2, there were significant improvements in peer acceptance and close friendships, but not romantic appeal.

However, time since last abuse was similar to duration and frequency, such that PTSD severity, distortions in object relations, distortions in reality testing, depression, and anxiety, were not changed by time elapsed according to Haviland et al. (1995) and Kumar et al. (1996). Consistent elapsed time of abuse cannot be determined since the age of participants differs from study to study. However, Kumar et al. found the average age of last abuse to be 10.67 (SD = 4.37) years old for boys and 12.68 (SD = 2.93) years old for girls. Though, a comparison study to see how generalizable those statistics are was not found.

**Number of Abuse Experiences**

There is very little research on the amount of abuse experience and its affect on abused adolescents in residential treatment. In a sample of residentially treated youth collected by Kumar et al. (1996), the average amount of sexual abuse episodes was significantly more for girls (M = 381.98, SD = 715.59) than for boys (M = 82.33, SD = 114.75). However, there were
no significant correlations between the amount of abuse episodes and severity of depression or anxiety.

Other research supported the idea that experiencing more abuse does not affect people more than experiencing a single case of abuse. Cuddy and Belicki (1992) looked at sleep disturbances of physically and sexually abused women. In their study, there were no differences among women who experienced a single episode of abuse versus multiple abuse events. Feiring et al. (2000) examined sexually abused adolescents and found that the number of times abused does not relate to peer competence nor peer network numbers. This is slightly surprising because peer competence and peer network numbers were affected by the relationship of the abuser (Haviland et al., 1995), yet not by the number of abuse episodes.

Only one study in this review indicated more psychological impairment due to multiple abuse incidents. Copeland et al. (2007) examined the effects of single versus multiple traumatic events on impairment. They defined impairment as a disruption of important relationships, school problems, physical problems, and exacerbation of emotional problems. They found that impairment rates were 20.4% for those who experienced a single traumatic event, while children who experienced multiple events had an impairment rate of 49.6%. However, these rates are for any traumatic event and are not specific to abuse issues only.

Severity

Different subtypes and severity of abuse were found to have different effects on adolescents depending on the study. Most agreed on physical abuse severity creating differences among the youth, while there was more disparity in the results regarding sexual abuse.

Naar-King et al. (2002) examined severity of abuse thoroughly. They rated severity of sexual abuse and physical abuse on separate 3-point scales. Severity for sexual abuse was rated
as: (1) Least severe, which is completed or attempted sexual touching of clothed genitals or breasts, touching of other unclothed body parts, or kissing; (2) moderate abuse, which is completed or attempted genital fondling, simulated intercourse, or digital penetration; and (3) severe abuse, which is completed or attempted vaginal, anal, or oral intercourse. Physical abuse severity was rated as: (1) Least severe, which is punishment beyond spanking without the use of an object or fist that does not result in marks or bruises; (2) moderate abuse, which is abuse using an object or fist, or contact that results in marks or bruises that do not require medical treatment; and (3) severe abuse, which is abuse that leads to injuries requiring medical treatment.

There was a significant difference in the severity experienced between those who experienced dual abuse, meaning both physical and sexual abuse, and those who experienced sexual abuse alone: 77% of the dual abused group, compared to 50% of the only sexual abuse group, experienced severe sexual abuse (Naar-King et al., 2002). Severe physical abuse was experienced by 9.5% of the participants, while 86.7% experienced moderate abuse. Also, dual abuse was associated with more severe physical abuse. There was no difference in severity between males and females.

Regarding physical abuse, Naar-King et al. (2002) found that those who suffered from severe abuse, rather than mild or moderate abuse, were more likely to have depression, anxiety, and posttraumatic symptoms. There were no differences in symptoms between those who suffered mild versus moderate physical abuse.

When analyzing the data of sexually abused adolescents who had concomitant physical abuse, Naar-King et al. (2002) found that there was no significant difference in severity of abuse due to timing and frequency, or relationship to the perpetrator variables. They also found that sexual abuse severity did not associate with increases in depression, anxiety, or posttraumatic
symptoms. However, since dual abuse was associated with increased severity in physical abuse, and increased physical abuse severity associated with increases in depression, anxiety, and posttraumatic symptoms, it would still be important to check for such symptoms in sexually abused adolescents.

Though, other researchers found evidence disputing those sexual abuse severity results. Copeland et al. (2007) found that 17.1% of those who experienced rape at some time in their lifetime would experience subclinical PTSD symptoms, and 33.2% would experience painful recall. For the subcategory of sexual abuse, only 3.4% experienced subclinical PTSD symptoms and only 8.4% had painful recall.

Friedrich et al. (1984) found that internalizing behavior was positively correlated with sexual abuse severity. Though, externalized behavior, including sexualized behavior, was not significantly correlated with severity of sexual abuse.

McClellan et al. (1997) supplied further evidence that different forms of sexual abuse, as well as physical abuse, had different affects on sexualized behavior. They found that girls with victimizing behaviors, compared to girls without such behaviors, were likely to have experienced ritualistic or sadistic sexual abuse, or have experienced major injuries due to physical abuse. Boys who either had victimizing behaviors or sexually reactive behaviors were more likely to have experienced sexual abuse in the form of oral sex than boys who had neither sexually inappropriate behavior. Boys with victimizing behaviors were also more likely to have experienced a major injury caused by physical abuse.

Consistent with Naar-King et al.’s (2002) findings of psychological disturbance in severely physically abused youth, Adams et al. (1995) found that severe physical abuse was
related to more sexualized behavior. More specifically, they found that physical abuse that led to a major injury was predictive of exposing behaviors and victimizing behaviors. Having a history of a major injury caused by physical abuse leads to a higher chance of victimizing behaviors

Internalizing versus externalizing

Several studies have examined how abuse affects internalizing and externalizing in residential adolescents. As mentioned earlier in this review, internalizing behaviors are psychological disruptions within the mind that are not necessarily acted out (e.g., depression, somatization, withdrawal). Externalizing behaviors are observable disruptive behaviors (e.g., acting out, delinquent, aggressive behaviors). Though many thoughts, diagnoses, and behaviors fall into either internalizing or externalizing categories, this section only reviews research that examined general patterns of internalizing and externalizing, not specific symptoms.

A few studies found that different abuse experiences did not account for any differences in internalizing or externalizing behaviors. In a study by Kumar et al. (1996), there were no significant correlations of sexual abuse with internalizing or externalizing behaviors. This was the only study that did not find internalizing affected by abuse experience. However, Cohen et al. (1996) and Naar-King et al. (2002) supported Kumar et al.’s findings that abuse experience had no affect on externalizing in residentially treated adolescent.

Baker et al. (2007) looked at how the abuse histories of residentially treated boys and girls correlated with internalizing and externalizing behaviors. In their study, internalizing included somatic complaints, withdrawing, depression, and anxiety. Externalizing referred to delinquent and aggressive behaviors.
The results showed that boys with histories of physical or sexual abuse were more likely to be in the clinical range for internalizing than those who were not abused (Baker et al., 2007; Physical: 46.5% vs. 35.5%; Sexual: 55.1% vs. 35.9%). The youth boys with sexual abuse histories were an astounding 87% more likely to be in the clinical range on the internalizing scales than non-sexually abused boys. For externalizing, boys with sexual abuse histories were more likely to be in the clinical range than boys without sexual abuse histories (63.3% vs. 54.2%). Physical abuse did not have a significant effect on externalizing for boys.

For girls, having histories of physical or sexual abuse made it no more likely to be in the clinical range on internalizing than having no histories of abuse (Baker et al., 2007). For externalizing, sexual abuse history was related to clinical elevation (79.9% vs. 68.6%), while physical abuse had no significant effect.

These results overall suggest that physical abuse increases internal issues for boys and had no significant effect on girls regarding Baker et al.’s (2007) definitions of internalizing and externalizing behaviors. The results also indicate that sexual abuse increases both internal issues and negative external behaviors for boys, while only affecting externalized behavior for girls. Though, the sexual abuse had more of an influence on internalizing than it did on externalizing for boys. Thus, Baker et al.’s study indicates that sexual abuse is more closely associated with internalizing for boys and externalizing for girls.

A possible explanation for internalizing being associated with boys was presented by Davies, Rogers, and Whitelegg (2009). Davies et al. used a hypothetical vignette about a 15-year-old sexual assault victim of his or her uncle to analyze the responses of male and female participants. One of the variables manipulated in the vignettes was victim gender. The results showed that male victims were viewed as more to blame than female victims. The blaming
attitudes towards victims of sexual abuse may be factors in the beliefs of those adolescents who 
had been abused. If an adolescent is aware of such beliefs by the general public, this may be part 
of why many adolescents feel guilt and self-blame for being victims of sexual abuse (Feiring et 
al., 2000). Boys being more likely to be blamed than females for being victims may partially 
account for why sexual abuse is associated with internalizing for boys according to Baker et al. 
(2007).

However, not all research that found significant results regarding internalizing and 
externalizing favor the idea that internalizing is associated with boys and externalizing is 
associated with girls. McCabe, Lansing, Garland, and Hough (2002) examined self-reported and 
primary caretaker reports on internalizing and externalizing. Primary caretakers were more 
likely to score female adolescents higher than males on total behavior problems and 
externalizing problems on the Child Behavior Checklist (CBCL; Achenbach 1991b). There was 
no statistically significant different between genders on the internalizing problems scale. On the 
Youth Self Report (YSR; Achenbach 1991a), girls again scored higher than boys on the total 
behavior problems and externalizing problems scales, though not significantly higher on the 
externalizing problems. Thus, both the parent reports and child self reports indicated higher 
behavioral problems in girls than boys in this sample. However, girls in this study were 
significantly more likely to be abused than boys, and abuse was not controlled for when 
examining reports of total behavioral, externalizing, and internalizing problems. Therefore, it 
cannot be concluded from this analysis whether the differences in behavior problems between 
females and males were due simply because of gender differences or abuse differences. The 
abuse categories that the girls in this sample were more likely than boys to have experienced 
were physical abuse, sexual abuse, emotional abuse, and physical neglect.
Another study designed to determine if different abuse characteristics were related to internalizing and externalizing behavior was conducted by Friedrich et al. (1984). The participants were outpatient children ages 3 to 12 ($M = 6.2$, $SD = 2.7$) whom had been sexually abused in the previous 24 months. The CBCL (Achenbach & Edelbrock, 1983) was completed by the parents. For the internalizing scale, 35% of the males and 46% of the females were significantly elevated. Children ages 5 and younger (51%) were more likely to have significantly elevated internalized behaviors than children ages 6 through 12 (36%). Internalizing behavior was found to be positively correlated with externalizing, duration, frequency, severity, and sexual behavior. It was negatively correlated with time since last abuse and closeness of the perpetrator. Variables that were predictive of internalizing were frequency, gender of the child, relationship to the abuser, and severity. These predictive variables suggest that girls abused frequently and severely by an emotionally close perpetrator exhibited internalizing behaviors.

For the externalizing scale, 36% of the males and 39% of the females were significantly elevated (Friedrich et al., 1984). Children ages 6 through 12 (44%) were more likely to have significantly elevated externalized behaviors than children ages 5 and under (31%). Externalizing behavior was found to be positively correlated with internalizing, duration, frequency, number of abusers, and sexual behavior. It was negatively correlated with time since last abuse and closeness of the perpetrator. Variables that were predictive of externalizing were duration, relationship to the abuser, time since last abuse, and gender of the child. These predictive variables suggest that boys abused for a long duration by an emotionally close perpetrator exhibited externalizing behaviors, though the behaviors reduced as time since last abuse increased.
Overall, Friedrich et al. (1984) found that sexually abused girls are more associated with internalizing scores, while sexually abused boys are more associated with externalizing scores. This is the opposite of the findings in Baker et al. (2007), where they found sexual abuse is more closely associated with internalizing for boys and externalizing for girls. Though, Baker et al. studied residentially treated adolescents while Friedrich et al. studied younger outpatient children. In addition, Friedrich et al. found differences in internalizing and externalizing among different age groups. Thus, the age differences and residential versus outpatient treatment samples may have at least partially accounted for these differences.

Doerfler et al. (2009) conducted a study in order to examine the relationship between gender and different types of abuse on psychological disturbance on youth in residential treatment. Their results from the Devereux Scales of Mental Disorders (DSMD; Naglieri, LeBuffe, & Pfeiffer, 1994) psychopathology measure indicated that girls were more inclined to have higher levels of both internalizing and externalizing symptoms than boys. They had higher conduct, anxiety, and depression symptoms than boys. The girls also had higher levels of physical assault, self-injurious behaviors, and tended to view the world as more hostile than boys. It should come as no surprise based on these results that girls also had significantly higher score totals than boys on the DSMD.

The DSMD results also indicated several differences among abuse experience (Doerfler et al., 2009). Those who had experienced sexual abuse only or both sexual and physical abuse had significantly higher internalized disorders scale scores than those who had not been sexually abused. Youth who were sexually abused only or experienced both sexual and physical abuse also had higher scores on the externalizing disorder scales than those who had not been abused.
The DSMD total scores were also significantly higher for youth who had been sexually abused or both sexually and physically abused when compared to non-abused youth.

As for gender differences, Doerfler et al. (2009) overall found that girls who enter residential treatment have higher levels of psychological disturbance than boys, even with abuse experience accounted for. The lack of significant differences on several of the externalizing behavior measures indicate that girls are likely to have levels of aggression and disruptive behaviors that are comparable to those of boys referred to residential treatment.

There were no differences between internalizing and externalizing scores on the YSR among the abused adolescents (Gore-Felton et al., 2001), but the scores for all three abuse types (i.e., physical, sexual, emotional) were two standard deviations or higher than the average non-abused adolescent and were in the clinical range established by Achenbach (1991a). Regarding YSR internalizing scores, girls scored significantly higher than boys, and emotional abuse was positively related to internalizing. Sexual abuse, physical abuse, and age had no effect on internalizing scores. With regards to YSR externalizing scores, age was inversely related to externalizing, meaning the younger the participant, the more likely he or she would report acting out behaviors (Gore-Felton et al., 2001). Regarding ethnicity, white adolescents were more likely to report externalizing behaviors than African American adolescents and adolescents with other ethnic backgrounds. Though, this was regardless of abuse experience.

Adolescents who reported either sexual or physical abuse were more likely to report externalizing problems than those with no sexual or physical abuse, respectively. Looking at these results, it is important to note that those who experienced physical or sexual abuse were more likely to have external problems, while those who experienced emotional abuse were more likely to have internal issues.
Behavioral issues can also be exacerbated by conduct and substance use problems. Crowley, Mikulich, Ehlers, Hall, and Whitmore (2003) examined the relationship of physical abuse, sexual abuse, emotional abuse, and neglect with conduct and substance use issues. The researchers assessed adolescents ages 14 through 18 who received intensive day treatment for conduct and substance use problems, as well as a comparison group recruited from the general population. Patients who endorsed abuse or neglect were likely to have externalizing behaviors such as school problems, running away, anger, and elevated substance use. Thus, the combination of conduct and substance use issues with abuse or neglect increases externalizing behaviors. Both patients and non-patients, who endorsed abuse or neglect, had internalizing thoughts of depression, anxiety, and distrust. Thus, abuse and neglect seem to increase internalizing states, but having additional conduct or substance use problems do not seem to exacerbate internalizing.

Diagnosable disorders and related symptoms

The purpose of this section is to describe how common disorders and related symptoms are influenced by maltreatment. Previous research indicates that maltreated adolescents have more diagnosable disorders than non-abused youth (Famularo, Kinscherff, & Fenton, 1992; Forbey, Ben-Porath, & Davis, 2000; Kaplan et al., 1998; McClellan et al., 1997), and maltreated girls are more likely to receive diagnoses than boys (McCabe et al., 2002). Though some studies have found no differences in diagnoses between maltreated and non-abused youth (Cohen et al., 1996; Sansonnet-Hayden et al., 1987), no studies were found that suggested more issues in non-abused than maltreated youth. Thus, the prognosis for maltreated adolescents is not promising. The disorders discussed in this section pertain to mostly internal issues. Specific disruptive behaviors that are often thought of as a behavior first and as a diagnosable disorder second (e.g.
substance abuse, sleep disruptions) will be discussed in the Behavioral Disruptions section.
Instead, this section will focus on conduct disorder, depression, anxiety, PTSD, and psychosis.

Conduct Disorder

There is disparity in previous research regarding conduct disorder and abuse. Some research support the idea that abuse increases the likelihood of a conduct disorder diagnosis, while other researchers found no support for such claims. When looking at a population of students from a residential school for children with various conduct problems, Haviland et al. (1995) found that 33.9% had experienced at least one of physical or sexual abuse. For those who experienced abuse, 43.2% experienced physical and sexual abuse, 37.8% experienced physical abuse only, and 18.9% experienced sexual abuse only. These statistics do not clearly show whether or not abuse influences conduct disorder. Though, they do show that abuse tends to be common among those who do have conduct issues.

There were more results found for this review regarding conduct disorder with physical abuse than sexual abuse. Kaplan et al. (1998) indicated that those adolescents who were physically abused were more likely to have been previously diagnosed, after the abuse occurred, with conduct disorder. They found that additional risk factors for conduct disorder included male gender, greater age, and a higher number of parental anxiety disorders. Livingston, Lawson, and Jones (1993) also found that conduct disorder was higher in males and older children; however, they found there were no differences accounted for by physical abuse experience. Though, even the idea that males have higher conduct disorder has been disputed. Doerfler et al. (2009) indicated that girls were more likely to have conduct issues than boys. Like Livingston et al., Monane et al. (1984) also indicated no association of physical abuse and
conduct disorder. They found similar rates of conduct disorder between physically abused and non-abused residential inpatient adolescents.

Sansonnet-Hayden et al. (1987) examined the diagnoses of residually treated boys and found that conduct disorder was not significantly more likely in the abused group than the non-abused group, though the sexually abused group did report significantly more conduct symptoms. When looking at the residually treated girls, there was no significance for neither conduct disorder nor conduct symptoms.

Children ages 5 through 10 and their parents were interviewed by Famularo et al. (1992). The sample included children who had experienced either no abuse or some combination sexual abuse, physical abuse, emotional abuse, and neglect. Interestingly, Famularo et al. found that conduct disorder was significantly more likely to be diagnosable in maltreated rather than non-maltreated children based on parent interviews, but not based on child interviews.

Depression

Depression is a common experience for adolescence in residential treatment. According to McCabe et al. (2002), Girls in residential treatment are significantly more likely than boys to receive diagnoses from the Diagnostic Interview Schedule for Children Version IV (DISC-IV; Shaffer, Fisher, Dulcan, & Davies, 2000). More specifically, a significantly higher percentage of girls had at least one mood disorder and were more likely to be diagnosed with major depressive disorder. Doerfler et al. (2009) supported the notion that girls generally had more depression symptoms than boys as evidenced by results on the DSMD.

Sexually abused girls had even more prominent depression than girls who experienced no abuse. Brooks (1985) found that depression was the highest rated scale among sexually abused girls on the Brief Symptom Inventory (BSI; Derogatis, 1975). The depression scores on the BSI
were higher in the abused group than in a comparison group. In fact, Brooks found that scores were more similar between non-abused girls whether residential patients or not than between residential patient girls whether sexually abused or not. Thus, it appears that sexual abuse itself has more of an affect on girls than there is difference between non-abused residentially treated girls and non-abused girls in the general public. Sansonnet-Hayden et al. (1987) also found that sexually abused girls are more likely to report depressive symptoms on the DISC (Costello, Edelbrock, Dulcan, & Klarie, 1984).

Sexually abused boys also appeared to have more depressive issues than non-abused boys. Sansonnet-Hayden et al. (1987) found that Major Depressive Disorder was the most common diagnosis among sexually abused boys in their study. This was not diagnosed significantly more in abused boys compared to non-abused boys, but the sexually abused group did report significantly more depressive symptoms than their non-abused counterparts.

Several studies counter much of the above findings regarding depression and sexual abuse. Kumar et al. (1996) indicated that there were no significant correlations of self-reported sexual abuse with mood. Depression, whether measured with the BDI or the YSR subscales, were not different between groups of sexually abused youth and non-abused youth (Hussey & Singer, 1993). Depression symptoms and diagnoses did not differ between sexually abused and non-abused in Cohen et al.’s (1996) study as well.

Regarding physical abuse, Kaplan et al. (1998) found that experiencing abuse made mood disorder diagnoses more likely. Adolescents abused were more likely to have formerly been diagnosed with major depression and dysthymia. Other factors that combine with physical abuse that increased likelihood of major depression included greater perception of father’s caring, perception of overprotection by one’s mother, having only one biological parent at home, and
being of an older age. Physical abuse also increased the likelihood of current mood diagnoses at the time of the interview. Factors that combined with abuse to further increase odds of depressive disorders were having two parents at home and the number of parental lifetime anxiety disorders.

Depressive symptoms were examined in both physically and sexually abused youth by Naar-King et al. (2002). Those who experienced either type of abuse had significantly more depressive symptoms than those who did not experience abuse. Those who experienced both forms of abuse scored higher than those who only experienced one of the forms of abuse. As previously discussed in the Abuse Characteristics section, Naar-King et al. also found that those who experienced severe physical abuse led to more depression than those who suffered from mild or moderate physical abuse.

Livingston et al. (1993) studied the influence of sexual and physical abuse from a parent on children and adolescents ($M = 10.2, SD = 2.3$) in residential treatment. They indicated that there were no differences in depression diagnoses between sexually and physically abused children.

There were limited results found for emotional abuse and depression. Courtney et al. (2008) indicated that emotional abuse predicted high levels hopelessness and depressive symptoms. The study also indicated that when emotional abuse was controlled for, hopelessness during one survey led to elevated risk for depression three months later. Though, when hopelessness was controlled for, depression was not significantly associated with emotional abuse. Thus, it appears that hopelessness may be influenced by the experience of emotional abuse, and that hopelessness serves as a catalyst for the adolescents to develop depressive symptoms.
A relationship between depression and PTSD was also found (Haviland et al., 1995). Haviland et al. found a positive correlation between PTSD reactions and depression. Though, when looking at abuse without considering PTSD reactions, depression did not differ between males and female.

**Anxiety**

There is much more consistency among research involving abuse and anxiety in residentially treated adolescents. Only one study examined in this review indicated no statistically significant difference between an abused group of teenagers, whom were sexually abused, and a group of non-abused teenagers (Sansonnet-Hayden et al., 1987). All of the other studies reviewed indicated some form increased anxiety among the adolescents.

Studies that examined abuse in broad terms found relationships between abuse and anxiety. Maltreated youth, including physical, sexual, and emotional abuse, were more likely to endorse anxiety than non-abused youth regardless of placement (Crowley et al., 2003). When looking at youth who experienced sexual or physical abuse, Haviland et al. (1995) indicated that PTSD reaction correlated with anxiety. They also found that anxiety was higher in those who were sexually abused as opposed to physically abused. There were no differences, however, in anxiety between abused boys and girls. Current age, duration of abuse, and time since the last abuse experience were not correlated with anxiety. Though, youth who were sexually abused at younger age did have more anxiety.

It is important to note that girls, regardless of abuse experience, tended to have more general anxiety and separation anxiety than boys (Doerfler et al., 2009; McCabe et al., 2002). Though Haviland et al. (1995) indicated that there were no differences in anxiety among abused boys and girls, McClellan et al. (1997) found sexual abuse associated with anxiety in girls, but
not in boys. Sexually abused boys, however, were associated with elevated anxiety according to Burgess, Hartman, and McCormack (1987).

Several studies indicated that physical and sexual abuse increases anxiety. Those youth in residential treatment centers who had experienced both physical and sexual abuse had more severe anxiety symptoms than non-abused youth in residential treatment (Naar-King et al., 2002). Dual abuse also associated with had more severe anxiety symptoms than physical abuse alone and sexual abuse alone. This suggests that the combination of physical and sexual abuse creates more problems in adolescents than if they were to experience only physical or sexual abuse.

After controlling for sexual abuse, Naar-King et al. (2002) found that longer duration of physical abuse predicted more anxiety. They also found, as mentioned in the Abuse Characteristics section, that those who suffered from severe physical abuse were more likely to have anxiety than those with less severe physical abuse.

Those who were sexually abused only did not significantly differ in anxiety from neither non-abused nor only physically abused participants according to Naar-King et al. (2002). This is surprising due to other studies that have shown more problematic symptoms in sexually abused participants than both physically abused and non-abused participants (Baker et al., 2007; Doerfler et al., 2009). Using the DSMD, Doerfler et al. (2009) found that youth in residential treatment who had experienced sexual abuse only or both sexual and physical abuse had significantly higher anxiety scale scores than those who had not been sexually abused. This indicates that physical abuse did not influence changes in adolescents who had been sexually abused.
Supporting Doerfler et al.’s (2009) assertion that sexual abuse created more anxiety issues than physical abuse, Livingston et al. (1993) found more separation anxiety in sexually abused youth than physically abused youth. They studied the influence of repeated sexual and physical abuse from a parent on youth using the Diagnostic Interview for Children and Adolescents Version 6R (DICA-6-R; Welner, Reich, Herjanic, Jung, & Amado, 1987). Separation anxiety disorder was significantly more likely in sexually abused children and adolescents than those who were physically abused. Sexual abuse alone was not predictive of separation anxiety; however, it did approach significance and sexual abuse with other non-abuse stressors (i.e., loss of a loved one and exposure to violent behavior by someone in the home other than any violence directed toward the child) was predictive of the disorder.

**Posttraumatic Stress**

As many may suspect, research on abuse seems to indicate that maltreatment has a significant affect on posttraumatic stress symptoms and diagnoses. PTSD among youth is significantly more apparent in maltreated youth compared to non-abused youth whether directly examined or assessed through parent reports (Famularo et al., 1992).

Haviland et al. (1995) has been discussed several times throughout this review, and the information from their study is telling regarding abuse and PTSD. They wanted to learn if PTSD symptom severity of physically and sexually abused adolescents was due to more personal characteristics or the abuse. The participants were students from a residential school for children with various conduct problems aged 11- to 19-years-old ($M = 15.4, SD = 1.7$).

The Child Post-Traumatic Stress Disorder Reaction Index (CPTSD-RI; Frederick, Pynoos, & Nader, 1992) was used to assess for PTSD (Haviland et al., 1995). Object relations and reality testing were assessed using the Bell Object Relations and Reality Testing Inventory
Anxiety and depression were also assessed, using the Revised Children’s Manifest Anxiety Scale (RCMAS; Reynolds and Richmond, 1990) and the Children’s Depression Inventory (CDI; Kovacs, 1985), respectively. The PTSD reaction scores showed positive correlations with insecure attachment, egocentricity, reality distortion, uncertainty of perception, hallucinations and delusions, depression, and anxiety. PTSD severity was not affected by differences in current age, age of onset, duration, or time since the last time experiencing abuse.

Those who experienced sexual abuse scored higher reaction scores on the PTSD scale than those who were physically abused only (Haviland et al., 1995). Those results were comparable with those of Sadeh, Hayden, McGuire, Sachs, and Civita (1993), who found that sexually abused youth (73.5%) from their sample were more likely to meet DSM-III-R criteria for PTSD than physically abused (26.1%) and non-abused children (7.14%). Also, Kaplan et al. (1998) indicated that physical abuse did not have any affect on lifetime or current PTSD. Though, Livingston et al. (1993) and Naar-King et al. (2002) found no significant difference between physically and sexually abused youth in the likeliness of PTSD diagnosis.

Naar-King et al. (2002) looked at the influence of physical and sexual abuse on adolescents in residential care. Participants who were abused had more posttraumatic symptoms, especially if they experienced both forms of abuse. For those who were physically abused, concomitant sexual abuse led to increased severity of posttraumatic symptoms when compared to physical abuse alone, even after controlling for severity of physical abuse. Controlling for severity of physical abuse was necessary because Naar-King et al. found that dual abuse is associated with more severe physical abuse.
PTSD reaction scores, according to Haviland et al. (1995), did not differ among boys and girl, or by parent versus non-parent abuser. However, McClellan et al. (1997) indicated girls with sex abuse histories had the highest rates of posttraumatic stress disorder when looking at sexually abused and non-abused boys and girls. Though, McClellan et al. did not use structured interviews and admitted that clinician bias may have led to lower rates of PTSD diagnoses in boys.

Copeland et al. (2007) also looked extensively at PTSD, though not exclusively at abuse issues. Of those who have experienced a potentially traumatic event at any time in their lives by the age of 16, sexual trauma had the highest percentage of adolescents who experienced subclinical PTSD (3.9%), meaning at least one symptom out of painful recall, hyperarousal, and avoidance symptoms from the DSM-IV PTSD criteria. Sexual trauma also had the second highest percentage (10.0%) of adolescents, behind violence (15.5%), who experienced only painful recall anytime in their lives. Similarly, those who experienced sexual trauma in the past 3 months had the highest percentage of victims with just painful recall (16.4%) and the second highest percentage of victims with subclinical PTSD (6.4%). The other injury or trauma category barely beat out sexual trauma with 6.7%. Within the sexual trauma category, the subcategory for rape showed that 17.1% of those who experienced such an event in their lifetimes had subclinical PTSD symptoms, and 33.2% experienced only painful recall. For those who experienced rape in the previous 3 months, 34.4% had subclinical PTSD symptoms and 65.6% had painful recall only. For the subcategory of sexual abuse, 3.4% who have ever experienced such an event had subclinical PTSD symptoms and 8.4% had painful recall only. For those who experienced sexual abuse in the past 3 months, 6.8% had subclinical PTSD symptoms while 17.4% only had painful recall.
Physical abuse by a relative was a subcategory under the Violence section (Copeland et al., 2007). For those who had been physically abused in their lifetime, 2.2% reported experiencing subclinical PTSD symptoms and 13.5% reported only painful recall. For those physically abused in the past 3 months, 4.3% had subclinical PTSD symptoms while 20.0% had painful recall only. These reactions to physical abuse were more severe than most of the other potentially traumatic events in Copeland et al.’s study.

Psychosis

There has been little research on abused, residentially treated youth on the subject of psychosis. The research that has examined the topic has been primarily regarding sexual abuse. Brooks (1985) compared sexually abused inpatient girls with non-abused inpatient girls using the BSI. The results indicated that the abused girls had prominent paranoid, schizoid, and psychotic features. Psychoticism was the second highest scale, slightly behind depression, among the abused girls. Compared to non-patient girls, the abused girls in residential treatment had elevated paranoid ideation. Even sexually abused girls that Brooks deemed as using “denial,” due to severely underreporting general problems and complaints compared to other girls in the study, commonly reported schizoid or psychotic concerns.

Psychotic symptoms were found in both residentially treated girls and boys ($M = 14.6$) according to Sansonnet-Hayden et al. (1987). Using the DISC, they found that sexually abused girls were more likely to report schizoid and psychotic symptoms than non-abused girls, though related diagnostic differences were not indicated. For the boys in the study, schizoid and psychotic symptoms were also higher in those who experienced sexual abuse. Within the schizoid and psychotic subscales on the DISC, the abused boys reported more hallucinations, but not more delusions than the non-abused boys.
Results are similar using the Minnesota Multiphasic Personality Inventory-Adolescent (MMPI-A; Butcher et al., 1992). Forbey et al. (2000) used the MMPI-A to examine the relationship of childhood sexual abuse and psychological difficulties in adolescents in residential treatment. Their results showed that sexually abused adolescents scored significantly higher than non-abused adolescents on Scale 4 (Pd: Psychopathic Deviate), Scale 6 (Pa: Paranoia), and Scale 8 (Sc: Schizophrenia). This suggests that sexually abused youth are more likely to have some combination of social deviation (e.g., lack of acceptance of authority, amorality), paranoid symptoms (e.g., ideas of reference, feelings of persecution), and schizophrenia.

In Haviland et al.’s (1995) study on PTSD reactions of sexually and physically abused youth, reality testing was also examined using the BORRTI. Differences in gender, abuse type, and relationship to the abuser did not create differences in the reality testing subscale. However, PTSD reaction to the abuse did show positive correlations with reality distortions, uncertainty of perception, and hallucinations and delusions, which are all of the reality testing categories tested in the BORRTI. This shows that the PTSD associated with both sexual and physical abuse increases psychotic symptoms in residentially treated adolescents.

No studies were examined for this review that specifically indicated that emotional abuse is associated with psychosis. However, Famularo et al. (1992) examined maltreatment, which included physical, sexual, and emotional abuse, and found that maltreatment as a whole is associated to psychotic symptoms. Though, no children were diagnosed with a psychotic disorder in their sample.

Behavioral disruptions

Substance Use
Previous research has often shown that alcohol and drug use is common in maltreated youth. Some researchers have found no significant relationship between abuse and the use of drugs and alcohol when compared to non-abused adolescents (Carlson, 1991; Kumar et al., 1996; Runtz & Briere, 1986). However, other researchers have details that support the contrary (Burgess et al., 1987; Clark, Lesnick, & Hegedus, 1997; Hussey & Singer, 1993; McClellan et al., 1997; Riggs et al., 1990).

Regarding substance abuse and gender, McCabe et al. (2002) concluded that adolescent girls were no more likely to have substance use than boys despite the girls in the study experiencing more physical, sexual, and emotional abuse. However, McClellan et al. (1997) did find within their sample that girls with sexual abuse histories were more likely to use drugs and alcohol than non-abused girls, while similar results were not found for the boys in the study.

Clark et al. (1997) examined trauma and other adverse life history in residentially treated adolescents with alcohol dependence or abuse. The participants, ages 14 through 18, were compared with peers from the general public using the Structured Clinical Interview for DSM-III-R (SCID; Spitzer et al., 1987) and the Lifetime History of Alcohol Use interview (Skinner, 1982). Results indicated higher trauma rates in adolescents with alcohol dependence or abuse than in the control group for every trauma category (i.e., physical abuse, sexual abuse, violent victimization, witnessing violence, and other miscellaneous traumas). Both alcohol dependence and abuse were associated with those who had experienced physical abuse or sexual abuse. Violent victimization was significantly higher for those with alcohol dependence compared to the control group, but there were no significant differences in violent victimization for alcohol abuse versus the control group. Females in their study were more likely to experience sexual abuse, while males were more likely to experience violent victimization.
The onset of alcohol use varied from one specific trauma to another (Clark et al., 1997). The first time using alcohol was after the traumatic event in 90% of the physically abused teens, 77% of the sexually abused teens, 23% of the teen victims of violence, and 40% in those teens who witnessed violence.

Several differences regarding alcohol use were found between sexually abused youth and non-abused youth by Hussey and Singer (1993). The sexually abused adolescents (22.8%) were more likely to be intoxicated due to alcohol 3 or more times in the past 2 months compared to the non-abused adolescents (14.8%). The abused group scored significantly higher on the ADI than the non-abused. The ADI’s cutoff score was exceeded by 36.6% of the abused youth, which indicates a need for further drinking evaluation and possible treatment. The same cutoff score was exceeded by only 23.2% of the comparison group. Abused adolescents were also found to be more likely to use drinking as a way of self-medicating to alter mood and cope with negative feelings, as well as more likely to have aggressive and rebellious behavior related to drinking. The perceived benefits of alcohol were higher in the abused group. Surprisingly, there were no differences in age of first drink.

Hussey and Singer (1993) also found differences regarding drug use of the two groups of adolescents. Thirty-one percent of sexually abused adolescents, compared to 13.8% non-abused, reported using drugs 2 to 3 times per month. Drug use in general was reported in 51% of the abused adolescents compared to only 32% of the non-abused adolescents. Of the substance using adolescents, 43% of the abused youth, compared to 26% of the non-abused youth, reported using marijuana. Stimulants were used by 13.8% of the substance using abused adolescents, while 0% of the non-abused adolescents reported stimulant use. There were no differences in cocaine and depressant use between the groups. The perceived benefits of using drugs were
higher in the sexually abused group. The average age of first time using drugs was also significant between abused ($M = 12.4, SD = 2.3$) and non-abused ($M = 13.6, SD = 1.9$) youth.

Two studies regarding male children who had been abused in sex rings had significant results concerning substance use (Burgess et al., 1987). Study 1 was an eight year follow-up interview of adolescents ages 14 through 20 ($M = 17.4$) who had been abused in a sex ring for less than a year. The abused adolescents tended to experiment with more drugs than their control group, which consisted of their non-abused siblings. Though, only alcohol use was significantly higher statistically.

Study 2 was a six year follow-up interview of participants ages 17 to 21 ($M = 19.8$) who had been abused in a sex ring for more than a year (Burgess et al., 1987). The abused youth in this study were significantly more likely to use amphetamines, heroin, and psychedelics than non-abused peers.

Both sexual and physical abuse were studied regarding risk behaviors, including substance use, by Riggs et al. (1990). Substance varied due to several different factors within their sample of urban public high school students, though sexual abuse had no significance with any of the other factors (e.g. race, age, household characteristics). Those who reported physical abuse were more likely to drink alcohol than peers, and combining physical abuse experience with being older and white further increased the likelihood of drinking alcohol. Physical abuse also increased the chances of smoking cigarettes, and white females who were physically abused were the most likely to smoke cigarettes from the sample. Marijuana and other illicit drugs were not used significantly more by those who had a prior history of abuse.

Very little information was found for this review regarding emotional abuse and substance use. However, in Crowley et al.’s (2003) study of patients with conduct and substance
problems, patients who endorsed any maltreatment were likely to have exacerbated substance use.

Sexuality

Abuse, especially sexual abuse, has been a large focus for researchers examining the sexual tendencies of adolescents. Previous research on the subject appears to be consistent, such that maltreatment likely increases sexualized conduct (Adams et al., 1995; McClellan et al., 1997; Riggs et al., 1990; Runtz & Briere, 1986; Sansonnet-Hayden et al., 1987).

Adams et al. (1995), which has been briefly mentioned in other sections of this review, focused primarily on the relationship of abuse history (i.e., sexual, physical, and neglect) and inappropriate sexual behaviors of residentially treated youth ages 5 through 18. Sexually inappropriate behaviors tested for included hypersexuality (i.e., flirtatious and/or inappropriate grabbing or touching of others), exposing (i.e., public masturbation and/or self exposure), and victimizing (i.e., molestation, incest, and/or rape).

The researchers found that rates of sexual and physical abuse were higher in children with inappropriate behaviors than children who had been neglected or experienced no abuse (Adams et al., 1995). Seventy-nine percent of the children with hypersexual behaviors, 87% of the children with exposing behavior, and 83% were sexually abused Children with hypersexual, exposing, and victimizing behaviors had higher rates of chronic sexual abuse compared to those with non-sexualized behaviors. Those with exposing and victimizing behaviors were more likely to have histories of chronic physical abuse. Most of the hypersexual (88%), exposing (68%), and victimizing (68%) groups committed repeated or persistent inappropriate sexual behaviors, rather than a single incident.
Not surprisingly, sexual abuse history was highly predictive of all three inappropriate sexual behavior types (Adams et al., 1995). For hypersexual behaviors, being sexually abused during ages 0 through 3, ages 7 through 12, and being abused by somebody other than father or stepfather were all specific predictive variables. The number of sexual abusers, experiencing oral sex abuse, and being abused by somebody other than a sibling were all specific predictive variables for exposing variables. For victimizing behaviors, the number of sexual abusers, being sexually abused during ages 4 through 6, and experiencing chronic sexual abuse were all specific predictive variables.

Specific types of physical abuse were also predictive of the three inappropriate sexual behaviors (Adams et al., 1995). Experiencing physical abuse by somebody other than a parent was predictive of hypersexual behaviors. Physical abuse that led to a major injury was predictive of exposing behaviors. Victimizing behaviors were predicted by experiencing any physical abuse, as well as by two specific physical abuse types: Physical abuse that leads to a major injury and physical abuse between the ages of 4 and 6. Physical abuse that leads to a major injury was more predictive of victimizing behaviors than physical abuse in general and physical abuse between ages 4 and 6.

Neglect also seemed to influence inappropriate sexual behaviors, though not as much as the other forms of abuse (Adams et al., 1995). Being neglected during ages 4 through 6 and 7 through 12 was predictive for hypersexual and victimizing behaviors, respectively. Having non-supportive parents was predictive of exposing behaviors.

To add to the information found by Adams et al. (1995), the same sample of children along with the same sexually inappropriate behaviors were examined by McClellan et al. (1997) to see how abused and neglected boys and girls differed. Both genders had elevated sexual
reactive behaviors if they were sexually abused compared to non-sexually abused children. Those with inappropriate sexual behaviors were likely to have been younger at the time of their first sexual abuse and were likely to have had higher rates of chronic abuse. Sexually abused boys were more likely to have higher rates of victimizing than non-abused boys and both sexually abused and non-abused girls. The boys who either had victimizing behavior or sexually reactive behaviors were more likely to have been abuse by oral sex than boys who had neither sexually inappropriate behavior. Boys who were sexually abused by their mother or stepmother were likely to have sexually inappropriate behaviors in general. Additionally, victimizing behavior and hypersexuality in residentially treated boys were predictive of sexual abuse.

Girls with sexually reactive behaviors, compared to girls without sexually reactive behaviors, had high rates of abuse by their father or stepfather, as well as high rates of chronic abuse (McClellan et al., 1997). The girls with victimizing behaviors were likely to have high rates of chronic sexual abuse, major injuries due to physical abuse, and ritualistic or sadistic sexual abuse when compared to girls without victimizing behaviors. As found in the sample of boys, hypersexuality was predictive of sexual abuse in girls. Though, victimizing behavior was not predictive.

Both physical abuse and neglect also were associated to inappropriate sexual behaviors for girls (McClellan et al., 1997). A history of neglect for girls was associated with both victimizing and sexually reactive behaviors. Having a history of a major injury caused by physical abuse leads to a higher chance of victimizing behaviors in the girls. Physical abuse and neglect were not found to be related to inappropriate sexual behavior in the boys according to McClellan et al.
For girls in the McClellan et al.’s (1997) sample, almost all of the girls who expressed sexually inappropriate behaviors had a history of sexual abuse. Sexually inappropriate behaviors of boys were associated with sexual abuse history, but some boys displayed such behaviors even without sexual abuse history.

Other significant results regarding sexual and physical abuse with sexual activity were discovered by Riggs et al. (1990) and Burgess et al. (1987). Sexually abused teenagers, according to Riggs et al., were more than three and a half times more likely to engage in sexual activity, excluding the actual sexual abuse events, than their non-abused peers. Physically abused teens were twice as likely to engage in sexual activity as non-abused teens, though this was not statistically significant. Burgess et al. found that boys in a sex ring for less than a year showed no difference in sexual behavior and interest when compared to non-abused siblings. Compared to non-abused peers, sexually abused boys in a sex ring for more than a year were more likely to compulsively masturbate or be involved in prostitution.

A less detailed description of sexualized behavior of sexually abused youth, compared to Adams et al. (1995) and McClellan et al. (1997), was given by Sansonnet-Hayden et al. (1987). They indicated that promiscuous sexual activity was reported by significantly more sexually abused girls than non-abused girls, which was consistent with Brooks’ (1985) assertion that sexual promiscuity is a common problem in residentially treated girls. Out of six sexually abused boys in Sansonnet-Hayden et al.’s study, five had a history of cross-dressing. This compares to only one of the 19 non-abused boys in the study. Though, as intriguing as those numbers regarding the males’ behavior are, the sample was not large enough to be statistically significant. Also, three of the six sexually abused boys had sexually abused a younger child, one being a younger brother. None of the non-sexually abused boys had sexually abused a younger
child. Physical abuse was reported in four of the six sexually abused boys compared to nine of the 19 non-abused boys.

Runtz and Briere (1986) retrospectively compared the behaviors of women sexually abused as teenagers with non-abused women. The women were selected from a sexual victimization project and previous residential treatment was not indicated. The results indicated that sexually abused women were not significantly more likely to have provided sex for money, though they were more likely to have dressed in more revealing clothing and have homosexual contact while they were teenagers. Though homosexual contact was significantly higher in the sexually abused women, homosexual and bisexual sexual identity was not evaluated.

Though it is not unheard of for researchers to believe that sex between a man and a boy is likely to cause boys to become homosexual (Bartholow et al., 1994; Urquiza & Capra, 1990), more literature indicates that this is believe is not likely true (Bell et al., 1981; Rind, 2001; Savin-Williams, 1997). Rind studied 129 gay and bisexual men, 26 of whom had age-discrepant sexual relations with an adult male during adolescents. He found that on average, the males became aware of their sexual attraction to other males 3.5 years before having sexual contact with an adult male. Only one of the 26 men claimed was not aware of his attractions to other males before having sexual contact with an adult male. Of the same males, approximately 75% of the participants labeled their attractions as “gay” or “homosexual” before the contact, and 16% labeled their actions as “gay” or “homosexual” around the same age of the contact with an adult male. Thus, even though other studies in this Sexuality section indicate changes in sexual behavior, influencing homosexual identity development does not appear to be likely.

Aggression
Adolescence is often thought of a time in peoples’ lives when there is more aggression. Those adolescents who have been maltreated and are placed in residential treatment centers express and experience more aggression than non-maltreated youth in the general public. There are many forms of aggression that can be expected to be elevated in adolescents receiving treatment in a residential setting, including internalized aggression, verbal aggression, physical aggression, and self aggression.

In general, internal hostility towards others and perceived from others seems to be elevated in maltreated adolescents (Brooks, 1985; Burgess et al., 1987; Doerfler et al., 2009; Spillane-Griece, 2000). Doerfler et al. assessed residentially treated youth using the Proactive/Reactive Aggression rating scale (Dodge, Lochman, Harnish, Bates, & Pettit, 1997). Their results showed that youth who had experienced either physical or sexual abuse had elevated scores on the perceived hostility scale, as well higher total hostility, when compared to non-abused youth. The results also indicated that girls tended to score higher than boys on perceived hostility and total hostility, whether abused girls were compared to abused boys or non-abused girls were compared to non-abused boys. However, neither gender nor abuse experience had an effect on expressed hostility according to the measure.

Using the Anger and Hostility Scale (Sappington & Kelly, 1991), Sappington, Pharr, Tunstall, and Rickert (1997) also found relationships between internal hostility and abuse in an undergraduate sample. They found that physical abuse was associated to anger and hostility. Though, sex abuse only correlated with anger and hostility if the abuser was somebody other than a parent.

Sappington et al. (1997) found that verbal abuse and witnessing marital abuse did not correlate with internal hostility. When a hypothetical situation that could elicit physical
aggression was presented to adolescents who had experienced one or both of physical abuse and witnessing marital violence, there was no significant different in approval of violence from those who had not experienced any abuse (Carlson, 1991). However, verbally abused teenagers had elevated internalized hostility when assessed by Spillane-Grieco (2000), who used the Aggression Questionnaire (Buss & Perry, 1992).

Sex abuse can lead to thoughts of being persecuted by the adolescents’ own families, even when the abuser is not a family member. Burgess et al. (1987) found that adolescent boys in a sex ring conducted by a non-family adult were more likely to feel pressured, threatened, or rejected by their families for disclosing the abuse, as well as feel punished or blamed by their parents for the abuse. They were also more likely to report feeling as though their families express more anger, aggression, and conflict with them.

The research on verbal aggression in maltreated youth in residential treatment is divided. Doerfler et al. (2009) found no differences in verbal aggression between males and females, nor between physically, sexually, and non-abused adolescents. Spillane-Grieco (2000), however, found that verbally abused youth were more likely to be verbally aggressive towards each parent. Connor et al. (2004) also found results different from Doerfler et al.’s regarding gender, such that residually treated girls exhibited higher levels of verbal aggression than boys.

Physical violence towards other people was typically elevated in those who have experienced maltreatment and for those who receive residential treatment. Using the Modified Overt Aggression Scale (MOAS; Sorgi et al. 1991), Doerfler et al. (2009) indicated that residually treated girls were more likely to physically assault others and were more aggressive overall when compared to boys. These findings were comparable to Connor et al.’s (2004) finding that residually treated girls committed more physical assault than boys.
Studies examining sexually abused versus non-abused youth appear to be consistent that aggression is elevated in the abused groups. Doerfler et al. (2009) and Burgess et al. (1987) found that sexually abused adolescents were more likely to physically assault others, while Burgess et al. also indicated that the use a weapon to attack others is also likely in abused adolescents. Gomes-Schwartz, Horowitz, and Sauzier (1985) found that sexually abused children were likely to exhibit infantile aggression and other aggression. Sexually abused teens were also likely to assault others while under the influence of alcohol (Hussey & Singer, 1993). For girls, aggression to others was predictive of sexual abuse, while for boys animal cruelty was predictive (McClellan et al., 1997).

Monane et al. (1984) closely examined violent acts of physically abused children ages 3 through 17 years old in residential treatment. They classified severity of violence on a scale of 1 to 4: (1) no violence, (2) threats or minor aggressive acts, (3) serious violent acts (e.g., assault, use of a weapon), and (4) extraordinary aggression or attempted murder (e.g., stomped a child, stabbed a classmate). Violent acts performed by the participants differentiated between abused and non-abused groups. Seventy-two percent of the abused participants had used serious (3) or extreme (4) violence, compared to 46% of the non-abused participants. Homicidal behaviors were also slightly more common in the abused group. The victims of the abused youths’ violence were most often peers and teachers, rather than a parent. Doerfler et al.’s (2009) study supported the findings that physical abuse leads to an increase in physical violence. These results stress the importance that clinicians should further examine youth for physical abuse if they have violent behaviors.

Expanding on the relationship between physical abuse and aggression, Muller and Diamond (1999) found that physical abuse from fathers and mothers had similar effects. Abuse
from either parent predicted aggressive behavior in male and female college students. However, physical abuse from one’s mother was not predictive of aggression in males while they were still children. Also, those parents who were abused by their mothers were likely to be abusive as children and as adults. Experiencing abuse by both mother and father was more predictive of aggressive behavior than by just one of the parents.

Court records of participating youth from the general public were looked at by Herrera and McCloskey (2001) five years after reports of physical abuse and marital violence exposure. The children were aged 6 to 12 (\(M = 9.2, SD = .195\)) at the initial interview, thus 11 to 17 years old during the follow up. Arrests during those five years included offense categories of drug, felony, order, petty theft, property, runaway, status, and violent offenses. Violent offenses included reckless, endangerment, assault, aggravated robbery, kidnapping, child molestation, carrying a concealed weapon, and domestic violence. Seventeen percent of the children who witnessed marital or experienced child abuse were arrested due to violent offenses, compared to only 5% for those who had had not. It is important to note that there was no interaction effects found for physical abuse with witnessing marital violence, and there were no significant differences between boys and girls in the number of referrals to juvenile court. However, boys were more likely to be referred for felonies, property damage, and violence. For violent offenses, 89% of the girls arrested were due to domestic violence, while boys had more of a variety of violent offenses, many of which were outside of the home.

There were also several predictive factors found for violent offense referrals (Herrera and McCloskey, 2001). Boys and older adolescents were more likely to have referrals for a violent offense. Witnessing marital violence led to a higher likelihood of having an arrest record for
violent offenses. Girls who experienced physical abuse were also at a higher risk of referrals for a violent offense, while abuse did not predict referrals for boys.

Though it appears physical aggression is more common in maltreated groups than non-abused groups based on the above information, information regarding aggression towards family members is not as consistent. Spillane-Grieco (2000) indicated that verbally abused teens were more likely than non-abused teens to be physically aggressive towards each parent. As mentioned earlier, however, Monane et al. (1984) found that most victims of violence at the hands of physically abused children were not parents. Additionally, Cohen et al. (1996) found there were no differences between physically, sexually, and non-abused youth in residential treatment regarding aggression towards the family.

Many studies looked at suicide and self-injurious behaviors of maltreated adolescents, and the results were split as to whether or not maltreatment affected the harmful thoughts and behaviors. Self-injurious behaviors and suicide attempts were not different between physically, sexually, and non-abused groups according to several studies (Cohen et al., 1996; Flisher et al., 1997; Kumar et al., 1996; Monane et al., 1984; Runtz & Briere, 1986; Spirito, Stark, Fristad, Hart, & Owens-Stively, 1987). Several studies indicated that suicidal and self-harm ideations were also no different among the groups (Cohen et al., 1996; Hussey & Singer, 1993; Livingston et al., 1993). These results are surprising due to depression being linked to both suicide (Hawton & Van Heeringen, 2009) and abuse (Baker et al., 2007; Brooks, 1985; Kaplan et al., 1998; Naar-King et al., 2002; Sansonnet-Hayden et al., 1987).

Other studies contradicted the above results. Past self inflicted injuries and suicide attempts were more likely in maltreated groups compared to non-maltreated groups according to Bossarte, Simon, and Swahn (2008); Kendall-Tackett, Williams, and Finkelhor (1993); Riggs et
al. (1990); Sansonnet-Hayden et al. (1987); Trickett & Putnam (1991); and Wyatt (1988). Thoughts about suicide and self harm were elevated in maltreated youth according to Brooks (1985) and Doerfler et al. (2009). Additionally, Forbey et al. (2000) indicated that sexually abused adolescents in residential treatment had significantly elevated scales on the MMPI-A that are associated with increased self-harm thoughts and behaviors.

Riggs et al. (1990) provided further details regarding suicide attempts in a sample of teenagers from a public school. They discovered that more than two and a half times more females than males attempted suicide, which is consistent with findings that girls in residential treatment are more likely to have self-injurious behaviors and suicidal thoughts (Connor et al., 2004; Doerfler et al., 2009). Riggs et al. also indicated that physically abused teens were five times more likely to have attempted suicide than non-abused teens, while sexually abused teens were three times more likely than non-abused teens. In their sample, age of first sexual abuse experience had no affect on any risk-taking behaviors.

Social

Poor peer relationships is a problem in many adolescence, especially in those who have been maltreated (Wodarski, Kurtz, Gaudin, & Howing, 1990; Wolfe & Mosk, 1983). Previous research on social characteristics and abilities of youth is limited and inconsistent.

Several studies suggested that maltreatment history had no impact on social relationships. When looking at physically abused university students ages 18 through 23, Lopez and Heffer (1998) found no difference between abused and non-abused participants regarding social competency scores using the Self-Description Questionnaire-III (SDQ-III; Marsh, 1990), the Social Skills Inventory (SSI; Riggio, 1989), and the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987). Regarding residually treated adolescents, sexually
abused adolescents were no worse on social competencies, including social relationships, lying to friends and peers, and involvement in activities (Hussey & Singer, 1993; Runtz & Briere, 1986). In fact, Runtz and Briere found that sexually abused girls were actually more likely to engage in sports. Gomes-Schwartz et al. (1985) discovered that sexually abused children ages 7 to 13 were more likely to have antisocial behavior and withdraw socially, but had comparable interpersonal social skills as non-abused children.

Other studies indicate that maltreatment does influence social behavior and abilities. Flisher et al. (1997), as well as Hjorth and Ostrov (1982) reported that physically abused youth have difficulties with social relationships when compared to non-abused youth. It is important to note that parents of the abused youth in the research by Flisher et al. had low social competence, thus low social competence in physically abused youth may be due to parental factors other than the abuse alone.

Sex abuse also impacts social relationships according to several researchers. Burgess et al. (1987) found that boys sexually abused in sex rings for under a year struggled with friends of the opposite sex, while boys sexually abused in sex rings for over a year likely to be involved in physical fights with their friends. Using the MMPI-A, Forbey et al. (2000) discovered that sexually abused adolescents in residential treatment scored higher than non-abused adolescents in treatment on the social introversion, alienation, and social discomfort scales.

A more in depth analysis of social lives of sexually abused youth was provided by Feiring et al. (2000). They examined the youth when the abuse was discovered (time 1) and after a year (time 2). The participants in this study had more same-sex than other-sex friends and preferred same-sex to other-sex friends at both time 1 and time 2. There was no difference in the number of friends or the satisfaction of peer support between the two times. However, over time
there was an improvement in the adolescents’ perceptions of peer acceptance, close friendship, and romantic appeal. The adolescents at both times viewed themselves as more competent in descending order from romantic appeal, peer acceptance, and then close friendships. At both times there were significant differences between romantic appeal and close friendships. From time 1 to time 2, there were improvements in peer acceptance and close friendships, but not romantic appeal. The number of times abused was not found to be related to peer competence nor peer network numbers.

Several gender and age differences regarding social life were also found (Feiring et al., 2000). Sexually abused boys reported more other-sex friends than abused girls at time 1. At time 2, boys still had more other-sex friends than girls, but this was no longer statistically significant. Girls reported more satisfaction in same-sex friend support than boys at both times. As for age, older adolescents reported less same-sex friends at time 1 and more satisfaction with other-sex friend support at time 2. Age was not related to social competence though.

Regarding PTSD reactions in physically and sexually abused youth, social incompetence and alienation were correlated with the severity of PTSD reaction (Haviland et al., 1995). For residentially treated students with parents as abusers rather than a non-parent, alienation and social incompetence were elevated. The younger the victim was at the time of first abuse also increased social incompetence and alienation.

**School**

Maltreated adolescents potentially have more issues than non-maltreated youth related to their schooling. Some problems that could arise include intelligence, attention, and ultimately academic success. In addition, lowered self image regarding future career and educational goals can influence such problems (Hjorth & Ostrov, 1982).
A couple of studies have indicated no differences in school problems pertaining to maltreatment experience (Flisher et al., 1997; Hussey & Singer, 1993), while others did suggest more issues with school performance (Copeland et al., 2007; Crowley et al., 2003; Eckenrode, Laird, & Doris, 1993; Runtz & Briere, 1986; Wodarski et al., 1990). Hussey and Singer found no school problems in those who were sexually abused, and Flisher et al. discovered that the grades between physically abused youth and non-abused were roughly the same. In contrast, poor school performance was found in a many studies regarding physically abused youth (Eckenrode et al., 1993; Wodarski et al., 1990). Runtz and Briere found that women who were sexually abused as children were likely to have done poorly in school as teenagers. They also discovered that the women were more likely to have skipped school than non-abused women, thus further providing evidence that educational motivation may have been low. Maltreatment in general was also related to school problems, including emotional abuse (Crowley et al., 2003). Copeland et al. indicated that for those who experienced abuse more than once, the chances of having decreased school functioning more than doubled. Therefore, it is does not appear to just be an issue of whether or not somebody was maltreated, but the amount of abuse experiences also seem to be important.

Learning disabilities may play a role in school issues for many maltreated children and adolescents. Gomes-Schwartz et al. (1985) indicated that children 13 and younger who were sexually abused were likely to have learning disabilities in general. In contrast, Monane et al. (1984) found that youth who were physically abused did not have any higher learning disabilities or retardation rates than non-abused youth.

Many studies looked at, regarding attention deficit-hyperactivity disorder (ADHD), indicate that sexual abuse is associated with elevated rates of ADHD while physical abuse is not.
The results for physically abused youth consistently indicated that ADHD was no more likely in abused youth than non-abused youth (Doerfler et al., 2009; Kaplan et al., 1998; Livingston et al., 1993; Monane et al., 1984). The few studies that examined ADHD in sexually abused youth consistently indicated that ADHD was more likely if abused occurred (Doerfler et al., 2009; Livingston et al., 1993). Famularo et al. (1992) indicated that maltreatment in general was related to higher ADHD rates, but sexual abuse experience was included with the other forms of abuse and potentially skewed the results.

Research examining intelligence suggests that the IQ of abused youth is different than non-abused youth, though they are inconsistent in stating how IQ is affected. Using the Wechsler Adult Intelligence Scale (WAIS; Wechsler, 1981) and the Wechsler Intelligence Scale for Children (WISC; Wechsler, 1991) for children with an average age of 13.44 (SD = 2.64) years old, Doerfler et al. (2009) found that both physically and sexually abused youth scored lower on Verbal IQ than those who were not abuse, but scored no differently on Performance IQ or Full Scale IQ. Looking at a younger group of sexually abused children with an average age of 8.07 (SD = 2.55), Sadeh et al. (1993), using the WISC, discovered the abused group had lower Performance IQ scores than the non-abused group, but showed no differences in Verbal IQ or Full Scale IQ. However, it is difficult to identify whether intelligence issues affected school performance, or if disruptions in the child at school, such as motivation, created an environment where improving intelligence is challenging.

Sleep

Sleep disturbances are prominent in maltreated adolescents, and they may influence other adverse behaviors of the youth. Only one study examined for this review indicated no difference in sleep patterns between sexually abused and non-abused youth (Sadeh et al., 1995). Every
other study that examined sleep found significant affects for sexually and physically abused youth (Burgess et al., 1987; Cuddy & Belicki, 1992; Krakow et al., 2002)

Sadeh et al. (1995), who found that sexually abused and non-abused children have similar sleep patterns, reported other results that were also important. An actigraph was used to monitor sleep patterns, including sleep onset, duration of sleep from onset to morning awakening, the percentage of actual sleep from onset to awakening, actual sleep, longest sleep period, and percentage of sleep without any motion. The results indicated that boys and girls have the same general sleep patterns. Physical abuse was related to less sleep in children than sexual or no abuse. Children who experienced physical abuse also spent a smaller proportion of time in motionless sleep than children who had been sexually abused or not abuse at all.

Sleep disturbance of sexually and physically abused groups were comparable according to Cuddy and Belicki (1992). They assessed men and women volunteers from a university ages 17 to 50 ($M = 21.2$). The participants completed a nightmare and sleep history questionnaire, which included the following sleep variables: hours of sleep, nightmare frequency in past year, night terror frequency in past year, frequency of repeating nightmares in past year, rating of frequent post-traumatic nightmares, and difficulty to fall asleep after nightmares rating. There were no differences between those who experienced childhood sexual abuse only and those who experienced both childhood physical and sexual abuse. There were no differences among those who experienced sexual contact before 14 years old and those experiencing sexual contact afterwards. People who had experienced either type of abuse had greater sleep disturbances regarding all of the variables, though single versus multiple abuse events had no influence on sleep. Contrary to Sadeh et al. (1993), Cuddy and Belicki found that sexually abused people had greater disturbances than physically abused people, but these differences were not significant. In
addition to sleep disturbances, depression scores on the BDI were also higher in the abused groups. When controlling for depression, the hours of sleep was no different between the abuse groups and the non-abuse group. This was consistent with reports from Dahl (1999) that indicated that depression is strongly associated to sleep deficits.

Krakow et al. (2002) assessed sleep disruptions in sexually assaulted women. Of the women who had been sexually abused as children, 89.8% met criteria for sleep-disordered breathing (SDB), which is strongly associated with worse sleep when compared to those without SDB. Insomnia, frequent nightmares, and other sleep disorders were reported in 77% of the abused women.

It is important to look at how changes in sleep characteristics affect adolescents. As previously established, depression and PTSD are major concerns for adolescents who have been maltreated. Dahl et al. (1996) suggests that distressing or negative thoughts can lead in emotional arousal interfering with sleep onset at night, thus this is very probable in maltreated adolescents in residential treatment. Dahl et al. also indicated that impulse control and attention difficulties are associated with sleep deprivation. This may partially explain why there have been several studies linking maltreatment with ADHD. When looking at the effects of acute sleep loss, Dahl (1999) found four main effects: sleepiness, motivation reduction due to tiredness, emotional chances, and changes in attention and performance. These results again indicate a link between sleep disturbances and ADHD, as well as depression. Other findings by Dahl indicate lower inhibitions, irritability, impatience, low tolerance, anger, and aggression. The combination of these findings speaks greatly towards the results found in the aggression subsection of this review.

Discussion
Summary of Major Findings

The purpose of the present literature review was to examine the influences of maltreatment experiences on emotional and behavioral issues of youth in residential treatment. Despite the limitations listed towards the end of this review, several tentative conclusions can be drawn from the present literature review regarding abuse characteristics, internalizing and externalizing, diagnosable disorders and related symptoms, and disruptive behaviors.

There were a variety of patterns found for abuse characteristics in maltreated youth. In general, ethnicity did not influence maltreatment rates or psychological disturbances in the adolescents. Lower-socioeconomic status and coming from disrupted families often increases the chances of sexual abuse rates and problems with the law (Herrera and McCloskey (2001) McClellan et al. (1997), though not all reviewed studies indicated significance regarding differences in socioeconomic factors.

Maltreatment perpetrators were usually family members, with fathers being the most prominent abusers in the examined studies. In most studies, being abused by a parent led to greater or equal psychological disturbances when compared to being abused by a non-parent. This potentially could be due to feeling that nobody is safe enough to count on. A greater number of abusers also increased difficulties for adolescents, especially if both parents maltreated the child. There was limited research on the effects of multiple abuse experiences, most of which indicated that being abused on multiple occasions did not create more psychological disturbances. Though, it is unknown if many of those studies examining multiple abuse experiences are looking at single abuse experiences versus only a few abuse experiences or many abuse experiences. It is possible that there are no significant differences between a single event and two events, yet single events compared to those who experienced more than 20 abuse
events could be drastically different. However, increased duration and frequency did seem to
relate to disruptions, especially regarding increased sexual behaviors. Maltreatment beginning at
an earlier age also typically created greater psychological disturbances. Severe forms of abuse,
especially physical abuse, relatively consistently increased problematic behaviors and internal
issues for the youth. Although, there were no studies looked at that tested the impact of
emotional abuse severity.

When looking at internalizing and externalizing in general, studies found that
maltreatment usually increased difficulties for the youth. Most studies found that at least one of
the internalizing and externalizing categories was influenced by prior maltreatment. It was also
more common in the studies for girls to have more internalizing and externalizing than boys.
This suggests that maltreated girls in residential treatment are likely to have more psychological
distress and more acting out and disruptive behaviors than maltreated boys in residential
treatment. Though girls seemed to be influenced overall more than boys by maltreatment, some
researchers indicated that maltreatment in girls affected internalizing more than externalizing,
while other researchers indicated that the opposite is true. Likewise, researchers were
inconsistent regarding whether internalizing or externalizing was more influenced by
maltreatment in boys.

Several diagnosable disorders and related symptoms were also examined. One disorder
that many people likely associate to residential treatment is conduct disorder. However, most of
the studies looked at in this review indicated that conduct disorder was not more common in the
abused adolescents than non-abused adolescents. Conduct symptoms, compared to conduct
disorder, was often found to be significantly higher in abused groups, but the results overall were
inconsistent.
Depression is another issue many likely associate with maltreated adolescents. The research indicates that girls display more depression in general than boys. Though, research on the influence of abuse on depression was inconsistent. For sexually abused youth in residential treatment, approximately half of the research indicates that abused youth have elevated depression symptoms and the other half says otherwise. Most of the sexual abuse research agreed on the idea that depression diagnoses were not influenced by abuse. Physical abuse, on the other hand, more consistently suggested that depression symptoms are more likely in abused rather than non-abused adolescents. Depression diagnoses were also more frequent in the physically abused according to the research. Research examined on emotional abuse and depression was limited. The emotionally abused adolescents frequently had more depression than non-abused adolescents. However, the emotional abuse seemed to increase hopelessness, which correlates with depression, rather than directly influencing depression (Courtney et al., 2008).

Nearly all of the studies examined in this review indicated significant anxiety elevation in one form or another among maltreated adolescents in residential treatment. One maltreatment study (Sansonnet-Hayden et al., 1987), which looked at sexually abused versus non-abused adolescents in treatment, found that those who were abused had comparable anxiety levels to those who were not abused. Otherwise, the research indicated elevated anxiety in sexual, physical, and emotional abuse. Experiencing a combination of different abuse types elevated anxiety even further. Several studies comparing physical abuse to sexual abuse supplied evidence that sexual abuse increases anxiety more than physical abuse. The research also showed in each study that girls had greater than or equal to the amount of anxiety that boys had.
The research on PTSD seemed to suggest that sexual trauma and physical trauma led to more posttraumatic stress than other forms of trauma. Most studies indicated that both forms of abuse increased the likelihood of posttraumatic stress. Sexual abuse led to more PTSD and related symptoms than physical abuse in many studies. While some studies indicated no difference in posttraumatic stress between physical and sexual abuse, no studies were found that indicated more posttraumatic stress was more common in physically abused youth than sexually abused youth. No studies on PTSD and emotional abuse were studied in this review.

There is limited research on psychosis and maltreated youth in residential treatment. Most of the research on psychosis examined in this review pertained to sexual abuse. Typically, sexual abuse was related to more psychotic symptoms, but no increases in diagnoses when compared to non-abused adolescents. Posttraumatic stress reactions to sexual and physical abuse, including separately, did correlate with disruptions in reality testing (Haviland et al., 1995). One study also showed that when sexually, physically, and emotionally abused youth were grouped together and compared to non-abused youth, psychotic symptoms were more likely in the maltreated group. Though, no studies examined linked emotional abuse alone with psychotic symptoms.

Many problematic external behaviors were researched in this review. Numerous studies concentrated on the substance use of maltreated youth in residential treatment. Most of the research indicates significant influences of maltreatment on increases in substance use, though a few researchers contest this. Regarding alcohol use, the studies generally signify more alcohol abuse in the maltreated groups than non-maltreated groups, but not more alcohol dependence. Tendencies to use more illicit drugs were also higher in maltreated groups; though not all of the studies indicated that the differences were significant.
Increased sexualized behavior was consistently found among maltreated groups. Sexual abuse and physical abuse both were associated with sexually inappropriate behaviors. Neglect was also associated with increased sexually inappropriate behaviors, though studies on other forms of emotional abuse and sexualized behavior were not analyzed. As many might expect, sexual abuse typically led to more sexualized behavior than both physical abuse and neglect. Physical abuse led to more sexualized behavior than neglect. Results were inconsistent regarding which maltreated gender exhibited more sexually inappropriate behaviors. However, many boys exhibit inappropriate sexual behaviors even without abuse (McClellan et al., 1997), thus expectations of genders could create biases. Also, a few studies indicate that sexual abuse from a member of the same sex increases the chances of developing homosexuality; however, more studies suggest that homosexuality is not made more likely by experiencing sexual abuse from a same sex abuser.

Several types of aggression were analyzed in this review. Most studies indicated that maltreated youth perceived more aggression from their families and the world in general. Results on hostile thoughts towards others were mixed. Research on maltreatment’s influence on verbal aggression was limited and divided, thus no reliable conclusions can be made on verbal aggression due to this review. Physical aggression was typically elevated in maltreated youth, including physical abuse, sexual abuse, verbal abuse, and witnessing marital violence, in residential treatment. Non-maltreated boys in treatment were usually more aggressive than non-maltreated girls, though there were often no differences in the amount of aggression between the two genders in maltreated samples. In the maltreated samples, boys and girls had similar rates of aggression and juvenile court referrals for aggressive acts, but the specific types of aggressive acts differed. Boys were more likely than girls to be violent in general, while girls were more
likely to be involved in domestic violence. Many studies examined self-injurious and suicidal thoughts and behaviors in maltreated youth in treatment. However, despite numerous studies looking at this issue, there was not a clear pattern indicating consistent increases in such thoughts and behaviors. Though, many studies found maltreatment of all types increased the thought and behaviors, while no studies indicated favorable thoughts and behaviors in the maltreatment groups. Research on gender did consistently suggest that girls were more likely to think about and attempt self injury and suicide.

Social behaviors and abilities was another category that had inconsistent findings. Some studies indicated more social incompetence in maltreated youth, while others showed no differences in social competencies. Looking beyond social abilities, some studies provided evidence that amount of peer friendships were lower and social behaviors were different in maltreated samples, while others indicated no differences in number of friends, genders of friends, and social choices. The Social subsection of this review was also the only section that indicated a favorable trait in maltreated youth when compared to non-maltreated youth: increased participation in female sports (Runtz & Briere, 1986).

Maltreatment often had an influence on intelligence, learning disabilities, and other academic factors. A limited amount of studies looked at intelligence and abuse. The limited research was consistent in showing differences in intelligence between abused and non-abused groups, but was inconsistent with regards to whether Verbal IQ or Performance IQ was affected. There were no studies that determined whether physical or sexual abuse created more changes in intelligence, and there were no studies reviewed on emotional abuse and intelligence at all. The studies examined regarding the connection of maltreatment with learning disabilities in general and retardation rates were limited and divided, but plenty of consistent results were found for
ADHD. In the reviewed studies, physical abuse consistently had no affect on ADHD rates in adolescents. Sexual abuse, on the other hand, consistently seemed to elevate ADHD rates. Despite these findings, the results for overall academic success were divided for physically and sexually abused youth. It is also important to note that those who experienced either physical or sexual abuse were more likely to have academic difficulties if more than one abuse event was experienced. Unlike sexual and physical abuse, no studies indicated similarities in academic success between emotionally abused and non-abused adolescents, though there were not enough studies examined on this subject to state that the findings would be consistent.

Finally, sleep disturbances were frequent in abused adolescents receiving residential treatment, though no studies on emotional abuse and sleep were found. For sexual abuse, only one study showed no differences in any sleep variables between abused and non-abused participants (Sadeh et al., 1995), while all examined studies showed unfavorable sleep characteristics in physically abused youth when compared to non-abused youth. It is unclear if there are differences in sleep patterns between physically and sexually. The influence of abuse on sleep was comparable for boys and girls. Research also shows that such sleep disruptions that abused adolescents experience may play a significant role in the thoughts, emotions, and behaviors of adolescents (Dahl, 1999; Dahl et al., 1996). Sleep deprivation can influence attention, impulse control, mood, aggression, and many other issues. Thus, by disrupting sleep, abuse may have additional, non-direct factors influencing internalizing and externalizing problems that have been discussed throughout this review.

Limitations

There are several limitations to this literature review. The most obvious limitation is the differences in the analyzed studies definitions and demographics. The results from different
research were compared and often signified inconsistencies in the outcomes. However, by having different definitions for maltreatment, different measures for constructs (e.g., depression), and analyzing different age groups and placements, it is difficult to decipher which differences may have caused the inconsistencies. There were also limited results for emotional abuse, especially regarding studies that compare emotional abuse to other forms of maltreatment. The limited findings make it difficult to generalize the results that were significant. Another limitation is the idea that it is impractical to review all of the research on the topic of maltreated adolescents in residential treatment. Some areas of the current review indicate consistencies in the research, though there likely is other non-examined research that contradicts the findings of particular sections.

**Recommendations for Future Research**

It would be beneficial for future research to focus on several of the topics that were more inconsistent. Some of the inconsistent topics that future maltreatment studies could analyze are gender associations to internalizing and externalizing, whether physical or sexual abuse leads to more sexualized behavior, the influence of maltreatment on intelligence, and the details of who maltreated youth are friends with rather than simply how many friends. Though, many other categories discussed in this review would benefit from further research, those stood out as being more limited or inconsistent. A more specific topic that was briefly mentioned in this review that had interesting results, but not enough statistics to support a significant finding was cross dressing in sexually abused youth.

Emotional abuse research was strikingly limited in comparison to sexual and physical abuse. This is potentially due to the broader definition of emotional abuse, which makes it harder for researchers to study than the other forms of abuse. More research on this topic,
especially studies that directly compare emotional abuse to sexual and physical abuse, could greatly expand the overall knowledge of maltreatment.

It may also be useful to research gender biases with regards to adolescents being sent to residential treatment centers. Society has different social expectations for girls and boys. Certain behaviors may be viewed as somewhat appropriate or expected in one gender, but viewed more negatively if performed by the other gender. For example, highly sexualized behavior in boys may be notched up to “boys just being boys,” but highly sexualized behavior in girls may be viewed as wildly inappropriate and requiring treatment.

Finally, future literature reviews would benefit from narrowing in on more specific maltreatment definitions, measurement tools, and demographics. This would create fewer limitations by reducing confounds.
References


