

# ADHD and Posttraumatic Stress Disorder

Daniel Alan Weinstein, Darlene Staffelbach, Psy.D., and Maryka Biaggio, Ph.D.

Attention Deficit Hyperactivity Disorder (ADHD; American Psychiatric Association, 1994) is a complex clinical entity that has proven difficult to diagnose and assess. ADHD has been assigned to large numbers of children in recent years; the estimated prevalence of this disorder has been reported to range from 1% to 20% (Barkley, 1991, 1997, 1998; Cohen, Riccio, & Gonzalez, 1994).

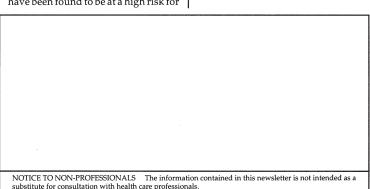
The American Psychiatric Association (1994) has established specific criteria for the diagnosis of ADHD, requiring six or more symptoms of inattention or of hyperactivityimpulsivity that have persisted for at least 6 months to a degree that is "maladaptive and inconsistent with developmental level" (APA, 1994, p. 83). Clinicians have a common language set of criteria by which to describe and assign the diagnosis. However, ongoing changes in diagnostic criteria and nomenclature, while reflecting advances in the classification of the disorder, have also complicated clinicians' understanding of the diagnosis of ADHD.

Adding to the diagnostic complexity of ADHD is the overlap in symptoms between ADHD and other behavioral disorders, such as conduct disorder (CD; APA, 1994) and oppositional defiant disorder (ODD; APA, 1994), both marked by impulsive disruptive behavior (Paternite, Loney, & Roberts, 1995; Rapport, 1998; Searight, Nahlik, & Campbell, 1995). In addition, some symptoms of ADHD overlap with Posttraumatic Stress Disorder (PTSD; APA, 1994), both of which may be characterized by difficulty concentrating, restlessness or irritability, and impulsivity (Blank, 1994).

Sexually abused children (SAC) have been found to be at a high risk for

developing PTSD and to have secondary diagnoses of ADHD (Famularo et al., 1992; McLeer, Deblinger, Henry, & Orvaschel, 1992; Merry & Andrews, 1994; Rowan & Foy, 1993). Misdiagnosis may easily occur in the absence of careful differential diagnosis supported by a detailed history. There is evidence that "the symptoms resulting in the diagnoses of ADHD and ODD may have been caused by maltreatment," and may actually be part of the anxiety associated with PTSD (Famularo et al., 1992, p. 866). While the diagnostic interview for PTSD typically attempts to identify a specific traumatic event triggering the symptoms, assessment of ADHD is more likely to focus on behavioral problems. Thus, misdiagnosis may occur as a result of inadequate history taking. In fact, some literature suggests that sexually abused children may be at heightened risk for the development of PTSD (Davidson & Smith, 1990; McLeer, Callaghan, Henry, &

(continued)



The ADHD Report • 1

FDITOR

Russell A. Barkley, Ph.D. University of Massachusetts Medical School, Department of Psychiatry, 55 Lake Avenue North, Worcester, MA 01655 E-mail: barkleyr@ummhc.org

### ASSOCIATE EDITORS

Arthur Anastopoulos, Ph.D., University of North Carolina at Greensboro Caryn Carlson, Ph.D., University of

- Texas, Austin Charles E. Cunningham, Ph.D., Chedoke Hospital, McMaster University Medical Center
- Medical Center Michael Gordon, Ph.D., State University of New York Health Sciences Center, Syracuse, NY
- Larry Lewandowski, Ph.D., Syracuse

University, NY Kevin Murphy, Ph.D., University of Massachusetts Medical School, Worcester

### EDITORIAL BOARD

EDITORIAL BOARD José J. Bauermeister, Ph.D., University of Puerto Rico, San Juan • Joseph Biederman, M.D., Massachusetts General Hospital and Harvard Medical School, Boston • George J. DuPaul, Ph.D., Lehigh University, PA • Gwenyth Edwards, Ph.D., Hallowell Center, Cambridge • Mariellen Fischer, Ph.D., Medical College of Wisconsin, Milwaukee • Sam Goldstein, Ph.D., University of Utah, Salt Lake City • Edward Hallowell, M.D., Harvard Medical School and the Hallowell Center, Cambridge, MA • Lily Hechtman, M.D., Montreal Children's Hospital, Montreal • Stephen Hinshaw, Ph.D., University of California, Berkeley • Betsy Hoza, Ph.D., Purdue University, IN • Charlotte Johnston, Ph.D., University of British Columbia, Vancouver • Florence Levy, M.D., The Prince of Wales Children's Hospital, Randwick, Australia • Richard Milich, Ph.D., University of Kentucky, Lexington • Joel Nigg, Ph.D., Michigan State University, Caste Luniversity of New York, Buffalo • Linda Pfiftner, Ph.D., University of Texas Medical School, San Antonio • Joseph Sergeant, Ph.D., University of Amsterdam, The Netherlands • Terri Shelton, Ph.D., University of North Carolina, Greensboro • Mark Stein, Ph.D., Children's National Medical North Carolina, Greensboro • Mark Stein, Ph.D., Children's National Medical Center, Washington, DC • Rosemary Tannock, Ph.D., Hospital for Sick Children, Toronto • Alan Zametkin, M.D., National Institute of Mental Health, Bethesda, MD

Bethesda, MD THE ADHD REPORT (ISSN 1065-8025) is published bimonthly by The Guilford Press, 72 Spring Street, New York, NY 10012. Periodicals postage paid at New York, NY, and at additional mailing offices. Guilford's CST registration number: 137401014. Subscription price: (axi suesu) Individuals 97700. Institutions, \$12000. Add \$1000 for Canada and Foreign (includes airmail postage). Orders by MasterCard, VISA, or American Express can be placed by phone at 800-365-7006, Fax 212-966-6708, or E-mail news8guilford-corn: in New York, 212-431-9800. Payment must be made in U.S. dollars through a U.S. bank. All prices guoted in U.S. dollars. Pro forma invicois issued upon request. Visit our website at www.guilford.com. CHANCE OF ADDRESS: Plaese inform publisher at least six weeks prior to move. Enclose mailing label with change of ad-dress. Claims for lost issues cannot be honore flour months after mailing date. Duplicate copies cannot be sent to replace issues not delivered because of failure to notify publisher of change of ad-dress. Postmaster: Change of address to The ADHD Report, Guilford Press, 72 Spring Street. New York, NY 10012. Photocopying of this newsletter is not permitted.

Photocopying of this newsletter is not permitted. Inquire for bulk rates. Copyright © 2000 by The Guilford Press

Printed in the United States of America.

### (continued)

Wallen, 1994; Wolfe, Gentile, & Wolfe, 1989), though they are more often diagnosed as ADHD than PTSD (McLeer et al., 1994).

The high prevalence of ADHD and the high rates of diagnostic comorbidity among sexually abused children may have major implications for the provision of services for this population. Even when comorbidity does not exist, the behavioral and emotional correlates of ADHD, PTSD, and sexual abuse are diagnostically complex. The challenge for clinicians increases greatly when these children present with symptom overlap and comorbidity. This complexity may complicate the assessment process and thus may increase the potential for misdiagnosis. The consequences of which may include inappropriate or inadequate treatment. For example, a child who has been sexually abused may be misdiagnosed with ADHD when a diagnosis of PTSD would be more appropriate. As a result, treatment interventions that focus on ADHD may be inappropriate or even harmful when a PTSD diagnosis is more accurate. Clearly, there is a need for increased attention to differential diagnosis of ADHD and PTSD in sexually abused children (SAC), yet no reviews of this issue have been reported.

### PTSD IN SAC

In addition to ADHD and PTSD, SAC have been found to develop a wide diversity of psychiatric disorders, including ODD, anxiety disorders, depressive disorders, and adjustment disorders (Merry & Andrews, 1994). In a study of psychiatric disturbance in SAC, McLeer et al. (1992) found the predominant diagnosis to be PTSD (44.4%), followed by ADHD (33.3%), conduct disorder (25.9%), simple phobias and oppositional disorders (7.4%), and dysthymia and overanxious disorders (3.7%). More recently, McLeer et al. (1994) found the most frequent diagnosis of SAC to be ADHD (46%), followed by PTSD (42.3%). In fact, McLeer et al. (1994) reported 54% of SAC diagnosed with PTSD also met diagnostic criteria for

The ADHD Report • 2

ADHD. Furthermore, the most common comorbid diagnoses given were PTSD with ADHD, noted in 23.1% of SAC in one study (McLeer et al., 1994). Other researchers have also found a substantial portion of SAC to develop PTSD (e.g., Kiser, Heston, Millsap, Pruitt, 1991; Wolfe et al., 1989), with percentages ranging from 20.7 to 90% (Deblinger, McLeer, Atkins, Ralphe, & Foa, 1989; Kiser et al., 1988, 1991; McLeer, Deblinger, Atkins, Foa, & Ralphe, 1988; McLeer et al., 1992, 1994).

Clearly, SAC appear to be at heightened risk for developing PTSD (McLeer et al., 1994). Documented symptoms of PTSD in SAC include intrusive thoughts about the trauma, reduced involvement with the external world, hypervigilance, and sleep disturbance (Krener, 1985). The literature indicates these children also experience intensification of symptoms during exposure to situations reminiscent of the traumatic event (Krener, 1985). Other symptoms may include multiple fears, excessive worry, mistrust, nightmares, denial, rage, unremitting sadness, psychic numbing, and social withdrawal (Kiser et al., 1988). A substantial percentage of SAC meets partial criteria for PTSD, with 86.5% exhibiting one or more symptoms of reexperiencing behaviors, 52.4% exhibiting three or more avoidant behaviors, and 72% exhibiting two or more symptoms of autonomic hyperreactivity (McLeer et al., 1992).

Diagnostic criteria for PTSD generally consist of three clusters of persistent symptoms: hyperarousal, reexperiencing phenomena, and avoidance (APA, 1994). When compared with physically abused and nonabused populations, SAC exhibit more symptoms in each of these clusters (Deblinger et al., 1989). Hyperarousal symptoms can manifest in ways that are both dramatic and disruptive, and may present as anxiety, sleeplessness, irritability or anger, difficulty concentrating, hypervigilance-a form of hyperarousal evidenced by distractibility, restlessness,

and/or impulsivity (Kiser et al., 1991)—and/or startle reaction (Friedrich, Urquiza, & Beilke, 1986; Kiser et al., 1991; Tomb, 1994; Tufts New England Medical Center, Division of Child Psychiatry, 1984). Hyperarousal symptoms also overlap with other psychiatric symptoms (e.g., generalized anxiety, hyperactivity) and may be less specific to PTSD (Deblinger et al., 1989). Another symptom of increased arousal includes interference with developmental achievements, evidenced by enuresis and encopresis, appetite change, stomachaches and headaches, and elevated aggression and antisocial behavior (McLeer et al., 1988; Tufts New England Medical Center, Division of Child Psychiatry, 1984).

Some manifestations of reexperiencing phenomena include: recurrent and intrusive recollections of the event found in repetitive play; recurrent distressing dreams; feeling or acting as if the traumatic event were recurring; repetitive sexualized play or talk; sexually abusive behaviors toward younger children; and other in-

appropriate sexual behavior (APA, 1994; Deblinger et al., 1989). Reexperiencing phenomena have been attributed to a significantly higher rate of inappropriate sexual behaviors displayed by child sexual abuse victims (Deblinger et al., 1989). According to Friedrich et al. (1986), such attribution is consistent with findings that inappropriate sexual behaviors appear to be a common symptom among SAC. Sexual acting out may be evidenced by children engaging in sexual activity, simulating intercourse with other children, displaying sexually provocative behavior, or demonstrating unusually precocious sexual knowledge (Kiser et al., 1988). SAC may also display great distress over any affectionate behavior observed between their parents (Kiser et al., 1991).

Avoidance behaviors may include fears specifically related to the trauma (e.g., fear of red lipstick or of men) or that appear to be mundane (e.g., fear of the dark) (Deblinger et al., 1989; Kiser et al., 1988). SAC suffering from PTSD may demonstrate increased anxiety, which appears to be associated with trauma-related fears (Kiser et al., 1991). Other avoidance responses may include fearfulness exhibited in nightmares, fearfulness of rapists and intruders, and fearfulness during family fights (Goodwin, Cormier, & Owen, 1983).

## DIFFERENTIAL DIAGNOSIS OF PTSD AND ADHD

There may be at least three ways in which PTSD symptoms may resemble ADHD and thereby complicate differential diagnosis of SAC. First, symptoms of PTSD may closely resemble or even mimic those of ADHD (Famularo et al., 1992). Second, symptoms of ADHD and PTSD may actually co-occur (Blank, 1994). Third, specific symptoms (e.g., difficulty with concentration, restlessness or irritability, and impulsivity) may be common to both disorders (Blank, 1994). According to Blank (1994), "To some extent, it appears that what the DSM codifies as PTSD is a generic post-traumatic process and collection of symptoms, which occurs alone, but also is found to be 'embedded' in other disorders" (p. 352).

Interestingly, the DSM-IV (APA, 1994) does not include PTSD as a differential diagnosis of ADHD. In order to address this lack, a comparison of DSM-IV criteria for PTSD and ADHD was conducted (see Table 1). ADHD symptoms were grouped into three logically occurring categories. Most obvious are those reflecting the two subtypes of the disorder: inattention and hyperactivity/impulsivity. The third category consists of other observable, or externalizing behaviors. PTSD symptoms were then assigned to ADHD categories on the basis of likely behavioral manifestations or outcomes that might contribute to diagnostic confusion. In other words, PTSD symptoms likely to be diagnostically confused with ADHD symptoms were grouped respectively alongside each of these categories. The following summary of this comparison illustrates the diagnostic confusion that may occur.

Table 1 shows that some PTSD symptoms may be misperceived in all categories of ADHD. These may include acting or feeling as if the traumatic event were recurring, and feeling intense psychological distress during exposure to cues resembling the trauma. It seems feasible that a child who experiences profound psychological disturbance subsequent to feeling as if a traumatic event were recurring might manifest what appears to be ADHD symptoms of inattention, hyperactivity/impulsivity, or overt externalizing behaviors.

In summary, an examination of both DSM-IV (APA, 1994) criteria and the literature (e.g., Blank, 1994; Tomb, 1994) point to considerable symptom overlap, symptom co-occurrence, and symptom resemblance between ADHD and PTSD. Many PTSD symptoms may be misinterpreted as ADHD symptoms of externalizing behaviors or problems with inattention, hyperactivity, or impulsivity. Given the possibility for diagnostic confusion, differentiation between these disorders. is vital for accurate diagnostic decision making. However, the DSM-IV appears to overlook this by excluding PTSD from the differential diagnosis of ADHD and vice versa. This lack of emphasis given to differential diagnosis may have implications for clinical assessment of PTSD and ADHD. Misdiagnosis may easily occur in the absence of careful differential diagnosis, with serious implications for the children involved.

### POSSIBLE CONSEQUENCES OF ADHD MISDIAGNOSIS IN SAC

There are several potentially serious consequences for SAC when misdiagnosis occurs. Perhaps of greatest concern are implications related to treatment. In general, treatment interventions for ADHD children predominantly consist of behavior management, social skills training, and stimulant or other medication (Barkley, 1990, 1998). In contrast, treatment interventions for children with

ADHD Category	PTSD Manifestation
Inattention	Acting or feeling as if the traumatic event were recurring Intense psychological distress at exposure to cues resembling an aspect of the trauma Reexperiencing trauma Problems concentrating Hypervigilant to perceived fear stimuli Avoiding stimuli associated with trauma
Hyperactivity/impulsivity	Acting or feeling as if the traumatic event were recurring Intense psychological distress at exposure to cues resembling an aspect of the trauma Inability to appropriately inhibit response due to hypervigilance Physiological reactivity when exposed to cues symbolizing an aspect of the trauma Irritability/anger outbursts
Externalizing behaviors	Acting or feeling as if the traumatic event were recurring Intense psychological distress at exposure to cues resembling an aspect of the trauma Avoiding activities, places, people Markedly diminished interest/participation in activities Feeling detached/estranged (e.g., if uncooperative/nonparticipating) Restricted range of affect (e.g., unable to show feelings of happiness) Exaggerated startle response Repetitive play with trauma themes Irritability/anger outbursts

PTSD generally consist of management and alleviation of emotional distress using play, psychodynamic (Lyons, 1987), and cognitive behavioral (Klein & Slomkowski, 1993) therapy modalities. Relaxation techniques (Klein & Slomkowski, 1993) and hypnosis (Lyons, 1987) have also been effective in treatment of PTSD in children. Though no clear drug treatment exists for PTSD, the more successful pharmacotherapy treatments appear to be monoamine-oxidase inhibitors and selective serotonin reuptake inhibitors (Maxmen & Ward, 1995).

Clearly, treatment interventions for ADHD and PTSD are distinct and misdiagnosis may lead clinicians to use inappropriate interventions, for example, mismedication. Side effects experienced by ADHD children on stimulant medication may include difficulty falling asleep, lack of appetite, irritability, headaches, and stomachaches. To a lesser extent, nausea, dizziness, tachycardia, muscle tics or twitches, and skin rashes may occur (Pelham, 1993). In rare cases, weight loss can be problematic. A few children may experience rebound symptoms of increased restlessness, overstimulation, dysphoria, mood lability, and irritability (Thomas, 1991), though this is uncommon (Barkley, 1998). Most relevant to the present discussion are findings that increased levels of anxiety may be predictors of adverse reactions to stimulants (Barkley, 1998). This would suggest that children with PTSD or with combined PTSD/ADHD may have more side effects or respond less positively to stimulants.

Another undesired consequence of ADHD misdiagnosis in SAC is the failure to address and treat the trauma symptoms of children who actually have PTSD. Subsequently, symptoms may continue and even become exacerbated. If the trauma is left untreated and disruptive behaviors are targeted instead, the child's self-esteem may suffer as a result. For example, a child misdiagnosed with ADHD may be placed in a structured learning environment or other educational setting designed to deal with oppositional be-

havior, aggression, or learning problems (Barkley, 1990). This child may be labeled by peers, relatives, or school personnel as a "bad child" who cannot be handled in a regular classroom. Classroom management techniques used in more restrictive settings and designed to improve hyperactive children's school functioning (Barkley, 1990, 1998), may not be appropriate for misdiagnosed children who may have been sexually abused. Finally, children misdiagnosed with ADHD may suffer from a low self-image as a result of their peers treating them differently or ridiculing them for having an attention deficit.

### CLINICAL DECISION-MAKING: DIFFERENTIAL DIAGNOSIS

Given the significant psychopathology and the wide range of psychiatric comorbidity in SAC, these children may present for assessment with a wide range of diagnostic possibilities. The manner in which the DSM-IV (APA, 1994) delineates criteria for ADHD contributes to the difficulty diagnosing this disorder. More specifically, the diagnostic criteria for ADHD require that "some impairment from the symptoms is present in two or more settings" (APA, 1994, p. 84). Diagnostic confusion or difficulty may emerge when a child reported to have such symptoms as high distractibility or inability to concentrate in other settings does not demonstrate these symptoms during the clinical interview. The presence of symptoms in two or more settings can be especially difficult to establish by clinicians not having access to these settings or to adults in the child's environment. For example, access to parents may be limited by environmental circumstances, or parents may be unwilling to cooperate. However, ADHD diagnosis is considered accurate only with collaborative evidence of symptomatology in more than one setting.

Clearly, a comprehensive ADHD assessment can provide clinicians with a wealth of information to aid in clinical decision-making. Such an assessment generally includes clinical interviews,

### The ADHD Report • 4

behavior rating scales, laboratory measures, medical examination, and direct observational procedures (Barkley, 1990, 1997). Though not used routinely, some researchers (e.g., Braswell & Bloomquist, 1991; Detweiler, Hicks, & Hicks, 1995) recommend administering a battery of psychological tests to clarify ADHD diagnosis. Each of these components contributes uniquely to assessment and clinical decision-making.

Despite the strengths of comprehensive ADHD assessment, no standardized procedure exists for assessing ADHD. As a result, clinicians use their preferred interview format, behavior checklists, or formal diagnostic procedures. This can be problematic in that clinicians may miss certain symptoms or important contextual information, thereby increasing the risk for misdiagnosis. There may also be an apparent absence of attention to trauma history in children presenting with ADHD symptoms. The absence of PTSD as a differential diagnosis for ADHD in the DSM-IV (APA, 1994) seems to imply that trauma history may not be an important consideration. Moreover, neither the CBCL (Achenbach, 1991) nor the ADHD Rat-Scale (DuPaul, Power, ing Anastopoulos, & Reid, 1998), two of the most widely used behavioral measures used in ADHD assessment, include questions inquiring about trauma. Even Barkley (1990, 1998), one of the most prolific writers in the field, does not mention the importance of trauma assessment when evaluating children for ADHD.

### RECOMMENDATIONS

Although the complexity of differential diagnosis is unlikely to change, it is possible to improve the assessment procedures themselves. One way this can be done is by routinely obtaining information about traumatic experiences. Routine assessment of trauma in children presenting with ADHD symptoms can be obtained through clinical interviews with the child, parents, and teachers. Direct questions can be asked about whether the child has ever experienced such trauma as sexual or physical abuse. If such abuse has occurred, it is important to obtain information about the frequency and duration of the abuse as well as how recently it happened. Information about a child's trauma history can also be obtained by including written self-report measures. A simple way to do this would be to include questions about trauma experiences on intake forms used at the onset of treatment. Medical exams can also be useful for detecting physical evidence of abuse.

Another way to improve assessments is by increasing attention to symptoms appearing to have the greatest overlap between ADHD and PTSD. A practical way to do this is to include questions according to symptom clusters such as those presented in Table 1. More specifically, questions about a child's subjective thoughts or feelings, as well as situational factors related to symptoms of inattention and hyperactivity/impulsivity can facilitate clinicians' understanding of the context of presenting symptoms. For example, when assessing symptoms of inattention, clinicians might ask the child at what times they have difficulty paying attention, and whether these incidents occur at certain times of the day or night-with particular people-or in specific places. Inquiring about the situational context of the inattention may yield valuable information regarding factors contributing to or exacerbating attention difficulties. It also might be helpful to ask the child about the content of his/her thoughts when it is hardest to pay attention. Such an inquiry could assess whether inattention is related to thoughts about particular people, places, or memories. Understanding the thoughts accompanying a child's inattention can help clinicians determine whether the child is reexperiencing a trauma memory. Another question to ask the child concerns the feelings experienced during times when it is most difficult to concentrate or focus. Inquiries can be made about what types of feelings occur at these times, as well as whether

there are particular memories, situations, or places that make it difficult to pay attention. During this line of questioning, clinicians can ask whether the child's inattention is related to wanting to avoid certain people, places, or situations, or whether certain fears make it hard to concentrate. Questions probing into the child's subjective and emotional experience, including potential for avoidant behaviors, can provide clinicians with valuable information about factors which may impact a child's ability to remain focused.

When assessing symptoms of hyperactivity/impulsivity, it may be beneficial to ask the child about thoughts or feelings that occur when having difficulty sitting still or when feeling fidgety or otherwise hyperactive. Similarly, one could ask about whether there are certain situations, places, memories, or people that make it harder to sit still or keep from fidgeting. Assessing certain situational factors related to hyperactivity/impulsivity, such as feared places or people, can provide information indicative of reexperiencing or avoidance symptoms associated with PTSD. Similarly, inquiring about a child's inability to wait his/her turn or to refrain from interrupting people may indicate reassurance-seeking secondary to exposure to trauma cues. It might be helpful to ask a child what makes it most difficult to refrain from these disruptive behaviors, or whether the child is aware of them. What appears to be hyperactivity/impulsivity may in fact be a child's inability to inhibit response to trauma cues due to hypervigilance. It may also be helpful to ask a child how his/her body feels when they are having trouble sitting still, keeping quiet, or waiting their turn. Questions about somatic sensations might reveal the presence of hyperarousal symptoms, such as physiological reactivity indicative of PTSD, rather than symptoms of hyperactivity or impulsivity.

Information gleaned from questions such as the above may reveal that a child's inattentive or hyperactive/impulsive symptoms are due to a trauma

response rather than primarily due to an attentional disorder. With this additional information, clinicians might learn that a reportedly inattentive or disruptive child may in fact be experiencing intense psychological distress subsequent to trauma. Without asking questions such as these, clinicians might not be alerted to the possible presence of PTSD, and may either mistakenly assign an ADHD diagnosis or miss the presence of comorbid PTSD.

The above questions may be helpful when interviewing a child. Information clarifying symptom overlap may also be obtained through other components of the assessment that provide collaborative information. Clinicians who utilize direct observations or merely focus on a child's behavior in the clinical setting must keep in mind the possibility of previous or ongoing trauma influencing current behavior. For example, sexualized behavior occurring during the direct observation component of the assessment may indicate the need for additional inquiry about trauma experience. Immediately after an observation, it may be beneficial for clinicians to interview the child to obtain an understanding of thoughts and feelings that may have occurred in conjunction with their behavior. For example, it would be helpful to know if a child who was having trouble sitting still also experienced distressing thoughts or recollections. It might be easy for clinicians to attribute a child's problems to ADHD when, on the surface, it appears that the child is having problems paying attention, sitting still, or appropriately interacting with peers. Questions focusing on the child's subjective experience can clarify clinicians' understanding of the problem and related factors.

Finally, clinical interviews with parents and teachers, a vital source of collaborative information in clarifying symptom overlap, should include questions related to the child's symptoms and both the child and parental response to the possible trauma. In order to clarify the dynamics underlying inattention and hyperactivity, it may be helpful to ask parents and teachers a modified version of the above questions. Other questions that may be helpful are those inquiring about what activities the child is usually involved in when s/he is being inattentive, hyperactive, or impulsive, as well as what typically occurs in the environment during times the child exhibits these symptoms. For example, if a child is exhibiting these symptoms primarily at bedtime, this would provide a different clinical picture than that of a child whose symptoms manifest during a designated study time. Parents and teachers may be asked whether the child ever reports feeling frightened or nervous while appearing inattentive, hyperactive, or impulsive, and whether the child ever appears to be avoiding certain activities, places, or people when presenting with ADHD symptoms. Assessing contextual factors related to ADHD-like behavior can provide invaluable collaborative information.

There is a need for increased attention to PTSD as a differential diagnosis of ADHD, both clinically and in the research. It is hoped the above recommendations will facilitate clinician's accuracy in differential diagnosis of children presenting with ADHD symptoms, and lead to increased awareness among clinicians about symptom overlap and comorbidity of ADHD and PTSD in SAC.

From time to time when I come across work I think would be of interest to our readers, I will invite authors to summarize the main clinical points of their considerably more expanded work for the ADHD Report. In this instance we thank the authors and the Clinical Psychology Review which published the original article ("Attention-Deficit Hyperactivity Disorder and Possttraumatic Stress Disorder: Differential Diagnosis in Childhood Sexual Abuse," Volume 20, 2000, pp. 359-378).

-Editor

Dan Weinstein is a doctoral student at the School of Professional Psychology, Pacific University, Forest Grove, Oregon, and is beginning his predoctoral internship in Denver at Colorado Mental Health Institute at Fort Logan. Darlene Staffelbach, Psy.D., is a licensed psychologist in private practice, and an adjunct faculty member at Washington State University, Vancouver. Maryka Biaggio, Ph.D., is Professor and Coordinator of Admissions at the School of Professional Psychology, Pacific University, Forest Grove, Oregon.

### REFERENCES

Achenbach, T. M. (1991). *Manual for the child behavior checklist/4–18 and 1991 profile*. Burlington: Department of Psychiatry, University of Vermont.

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.

Barkley, R. A. (1990). Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment. New York: Guilford.

Barkley, R. A. (1991). Attention deficit hyperactivity disorder. *Psychiatric Annals*, 21, 725–733.

Barkley, R. A. (1997). Attention-deficit/hyperactivity disorder. In E. Mash & L. Terdal (Eds.), *Assessment of childhood disorders* (pp. 71–129). New York: Guilford.

Barkley, R. A. (1998). Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment. New York: Guilford.

Blank, A. S. (1994). Clinical detection, diagnosis, and differential diagnosis of post-traumatic stress disorder. *Psychiatric Clinics of North America*, 17, 351–383.

Braswell, L., & Bloomquist, M. (1991). Cognitive-behavioral therapy with ADHD children: Child, family, and school intervention. New York: Guilford.

Cohen, M. J., Riccio, C. A., & Gonzalez, J. J. (1994). Methodological differences in the diagnosis of attention-deficit hyperactivity disorder: Impact on prevalence. *Journal of Emotional and Behavioral Disorders*, 2, 31–38.

Davidson, J. R. T., & Smith, R. (1990). Traumatic experiences in psychiatric outpatients. *Journal of Traumatic Stress*, *3*, 459–475.

Deblinger, E., McLeer, S. V., Atkins, M. S., Ralphe, D., & Foa, E. (1989). Post-traumatic stress in sexually abused, physically abused, and nonabused children. *Child Abuse and Neglect*, *13*, 403–408. Detweiler, R. E., Hicks, A. P., Hicks, M. R. (1995). The multi-modal diagnosis and treatment of attention deficit hyperactivity disorder. *Therapeutic Care and Education*, 4, 4–9.

DuPaul, G. J., Power, T. J., Anastopoulos, A. D., & Reid, R. (1998). *ADHD Rating Scale-IV: Checklists, norms, and clinical interpretation.* New York: Guilford.

Famularo, R., Kinscherff, R., & Fenton, T. (1992). Psychiatric diagnosis of maltreated children: Preliminary findings. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 863–867.

Friedrich, W. N., Urquiza, A. J., & Beilke, T. (1986). Behavioral problems in sexually abused young children. *Journal of Pediatric Psychology*, 11, 47–57.

Goodwin, J., Cormier, L., & Owen, J. (1983). Grandfather–granddaughter incest: A three generational view. *Child Abuse & Neglect*, 7, 163–179.

Kiser, L. J., Ackerman, B. J., Brown, E., Edwards, N. B., McColgan, E., Pugh, R., & Pruitt, D. B. (1988). Post-traumatic stress disorder in young children: A Reaction to purported sexual abuse. Journal of the American Academy of Child and Adolescent Psychiatry, 27, 645–649.

Kiser, L. J., Heston, J., Millsap, P. A., & Pruitt, D. B. (1991). Physical and sexual abuse in childhood: Relationship with post-traumatic stress disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, 30, 776–783.

Klein, R. G., & Slomkowski, C. (1993). Treatment of psychiatric disorders in children and adolescents. *Psychopharmacology Bulletin*, 29, 525–535. Krener, P. (1985). After incest: Secondary prevention? *Journal of the American Academy of Child and Adolescent Psychiatry*, 24, 231–234.

Lyons, J. A. (1987). Posttraumatic stress disorder in children and adolescents: A review of the literature. *Developmental and Behavioral Pediatrics*, *8*, 349–356.

Maxmen, J. S., & Ward, N. G. (1995). *Psychotropic drugs: Fast facts.* New York: Norton

McLeer, S., Callaghan, M., Henry, D., & Wallen, J. (1994). Psychiatric disorders in sexually abused children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 33, 313–319.

McLeer, S. V., Deblinger, E., Atkins, M., Foa, E. B., & Ralphe, D. L. (1988). Post-traumatic stress disorder in sexually abused children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 27, 650–659.

McLeer, S. V., Deblinger, E., Henry, D., & Orvaschel, H. (1992). Sexually abused children at high risk for post-traumatic stress disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 875–879.

Merry, S. N., & Andrews, L. K. (1994). Psychiatric status of sexually abused children 12 months after disclosure of abuse. *Journal of the American Academy of Child and Adolescent Psychiatry*, 33, 939–944.

Paternite, C. E., Loney, J., & Roberts, M. A. (1995). External validation of oppositional disorder and attention deficit disorder with hyperactivity. *Journal of Abnormal Child Psychology*, 23, 453–471.

Pelham, W. E., Jr. (1993). Pharmacotherapy for children with attention-deficit hyperac-

tivity disorder. School Psychology Review, 22, 199–227.

Rapport, M. D. (1998). Attention-deficit/hyperactivity disorder. In V. B. Van Hasselt & M. Hersen (Eds.), Handbook of psychological treatment protocols for children and adolescents (pp. 65–107). Mahwah, NJ: Erlbaum.

Rowan, A. B., & Foy, D. W. (1993). Post-traumatic stress disorder in child sexual abuse survivors: A literature review. *Journal of Traumatic Stress*, *6*, 3–20.

Searight, H. R., Nahlik, J. E., & Campbell, D. C. (1995). Attention-deficit/hyperactivity disorder: Assessment, diagnosis, and management. *Journal of Family Practice*, 40, 270–279.

Thomas, J. M. (1991). Antidepressants in the treatment of attention deficit hyperactivity disorder and comorbid disorders. In P. J. Accardo, T. J. Blondis, & B. J. Whitman (Eds.), Attention deficit disorders and hyperactivity in children (pp. 333–375). New York: Marcel Dekker.

Tomb, D. T. (1994). The phenomenology of post-traumatic stress disorder. *Psychiatric Clinics of North America*, 17, 237–250.

Tufts' New England Medical Center Division of Child Psychiatry (1984). Sexually exploited children: Service and research project. Final Report for the Office of Juvenile Justice and Delinquency Prevention. Washington, DC: U.S. Department of Justice.

Wolfe, V. V., Gentile, C., Wolfe, D. A. (1989). The impact of sexual abuse on children: A PTSD formulation. *Behavior Therapy*, 20, 215–228.