Lay-Diagnostic Tools, The Internet, and Definitions of Childhood: Attention Deficit Disorder as Cultural Phenomenon

A Thesis in Progress

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It is unknown how long the symptoms of Attention Deficit Disorder (ADD) have been with us, though it is assumed that they have been with us as long as history has been recorded. The modern story of ADD, including its change in focus from morality to science, began at the turn of the century. The following verse appeared in 1904 in the prestigious British medical journal *Lancet* and it is considered to be the first published account of ADD in the medical literature.

The Story of Fidgety Philip

"Let me see if Philip can
Be a little gentleman;
Let me see if he is able,
To sit still for once at the table."
Thus Papa bade Phil behave;
And Mama looked very grave.
But Fidgety Phil,
He won't sit still;
He wriggles,
And giggles,
And then, I declare,
Swings backwards and forwards,
And tilts up his chair,
Just like any rocking horse—
"Philip! I am getting cross!"
See the naughty, restless child
Growing still more rude and wild,
Till his chair falls over quite.
Philip screams with all his might,
Catches at the cloth, but then
That makes matters worse again.
Down upon the ground they fall,
Glasses, plates, knives, forks and all.
How Mama did fret and frown,
When she saw them tumbling down!
And Papa made such a face!
Philip is in sad disgrace…(Hallowell and Ratey 1994:270-271)

Today, one may remember "Fidgety Phil" as characters like Dennis the Menace and Calvin from "Calvin and Hobbes." Almost everyone knows a child who might sound

very much like Philip. This thesis will explore how American society defines Attention Deficit Disorder as an illness and how changing definitions of childhood and child behavior along with the availability of diagnostic tools on the Internet reinforce both the medicalization of behavior and the pharmaceutical treatment to "normalize" behavior. The author will use interviewing of parents and teachers and a content analysis of information on the Internet to explore these topics.

A Brief History of the Disorder

Up until the Nineteenth Century, uncontrollable behavior in a child was seen as a moral failing of either the parents or the child. The usual treatment for such transgressions was physical punishment for the child. Pediatric advice from the time included vivid descriptions of how to beat a child and explanation of the necessity of doing so.

In 1902, George Frederic Still, MD described a group of twenty children who were defiant, excessively emotional, passionate, lawless, spiteful, and had little inhibitory will. What sparked Still's interest was that these children all came from stable home environments with "good-enough" parenting (Hallowell and Ratey 1994:271). Still suggested that there might be a biological foundation for this behavior, some genetically inherited predisposition toward moral corruption. As Still and other physicians began to examine biological explanations for misbehavior, kinder child rearing emerged.

Still's observations also sparked the imagination of turn-of-the-century psychologists. His observation supported the theory of William James, the "father" of American psychology. James saw deficits in moral control and sustained attention as being causally related to each other through underlying genetic defects. He speculated

that either a decreased threshold in the brain for inhibition of response to various stimuli, or a syndrome of disconnection within the cortex of the brain in which intellect was dissociated from the "will," or social conduct (Hallowell and Ratey 1994:272).

In 1934, Eugene Kahn and Louis H. Cohen published a piece called "Organic Driveness" in the *New England Journal of Medicine*. Kahn and Cohen were studying individuals who had been hit by the encephalitis epidemic of 1917-18. This epidemic left some victims chronically immobile and others chronically insomniac, with impaired attention, impaired regulation of activity, and poor impulse control. Kahn and Cohen asserted that there was a biological cause for the hyperactive, impulse-ridden, morally immature behavior of both the victims of the outbreak and the children in Still's study. This was the first link of the symptoms of what we now know as ADD (distractibility, impulsivity, and restlessness) to an organic disease.

Around the same time, Charles Bradley was developing another line of evidence linking ADD-like symptoms to biological roots. In 1937, Bradley reported success in using Benzedrine, a stimulant, to treat behaviorally disordered children. This resulted in the development of the stimulants Ritalin and Cylert, which were found to have a dramatic effect on behavioral and social symptoms of the syndrome. The population of children was labeled as having MBD (minimal brain dysfunction). By 1957, there was an attempt to match the symptoms of what was then called "hyperkinetic syndrome" with a specific anatomical structure in the brain, specifically the thalamus.

In the 1960s, clinical skill with the hyperkinetic population improved, and the physician's powers of observation grew more attuned to the nuances of the children's behavior. Observers quickly became aware that the syndrome appeared to be due to a

genetically based malfunctioning of biological systems rather than to bad parenting or bad behavior. The study of the disorder continued to strengthen and with it, parents and children were finally absolved of any responsibility for the disorder.

By the early seventies, the definition of the syndrome began to include more subtle symptoms such as distractibility and impulsivity rather than just hyperactivity. ADD was seen as clustering in families and treatable with stimulant medication, though no one was sure why stimulants worked. This was also the period of doubting the existence of ADD, it was viewed by some as an excuse manufactured to vindicate degenerate children and their parents (Hallowell and Ratey, 1994:273).

In 1980 the disorder was characterized by a deficit in attention and concentration abilities. The DSM-III, the American Psychiatric Association's diagnostic criteria, named the term attention deficit disorder with hyperactivity (ADHD). IN 1987 the DSM-III-R added confusion to the disorder by focusing on attention deficit-hyperactivity disorder (ADHD) and classifying attention disorder without hyperactivity as Undifferentiated Attention Deficit Disorder (U-ADD). The DSM-IV clarifies the distinction between ADD with and/or without hyperactivity. The current revision recognizes ADD without hyperactivity as a "distinct entity" which results in problems for those children affected by it. Sometimes it is not seen as a real disorder when hyperactivity is not present (Price 2001). This topic will be returned to later in the paper.

Symptoms and Diagnosis

There are many different symptoms of attention deficit disorder. There are four main divisions of types of symptoms: attention deficit, hyperactivity, impulsivity and "other." Attention deficit symptoms include a failure to complete tasks, difficulty in

organizing tasks, and easy distraction. Hyperactivity symptoms include fidgeting, wandering, and excessive talking. Impulsivity symptoms include the blurting out of answers, interrupting, and having difficulty taking turns. Finally, the "other" symptoms include sleep problems and the inability to delay gratification. (For a complete list of symptoms, please see Appendix A.)

If ADD is suspected, a comprehensive evaluation is necessary to establish a diagnosis, rule out other causes and determine the presence or absence of co-occurring conditions. Such an evaluation should include a clinical assessment of the individual's academic, social and emotional functioning and developmental abilities. Additional tests may include intelligence testing, measures of attention span and parent and teacher rating scales. Increasingly, diagnoses are coming from pediatricians rather than mental health professionals.

To meet the diagnostic criteria for ADD/ADHD, symptoms must be evident for at least six months, with onset before the age of seven. Six or more of the nine symptoms of inattention or six or more of the nine symptoms of hyperactivity –impulsivity must be met. In addition, some symptoms causing impairment must be present before seven years of age and/or in two or more settings. There also must be clear evidence of significant impairment in social, school, or work functioning. The symptoms also must not be better accounted for by another mental disorder, including Mood Disorder or Schizophrenia.

Based on these criteria, three types of ADHD are identified. *ADHD, Combined Type* is diagnosed if the criteria for both inattention and hyperactivity are met for the past six months. *ADHD, Predominantly Inattentive Type* is diagnosed if the criteria for inattention have been met (but not those of hyperactivity-impulsivity) for the past six

months. *ADHD, Predominantly Hyperactive-Impulsive Type* is diagnosed if the criteria for hyperactivity-impulsivity have been met (but not those of inattention) for the past six months (American Psychiatric Association [APA] 2000).

Treatment

Many different methods of treatment have been used for ADD including psychotropic medications, psychosocial interventions, dietary management, herbal and homeopathic remedies, biofeedback, meditation, and perception stimulation/training. Of these treatment strategies, the most research has been done on stimulant medications and psychosocial interventions. However, there is no long-term information comparing the two.

The primary medications used to treat attention deficit disorder include: Dexedrine and other amphetamines, Ritalin (methylphenidate) and Cylert (magnesium pemoline). Antidepressants, tranquilizers and alpha-adrenergic agonists (Clonidine) have been utilized with little success. Between 70-80 percent of children with ADD/ADHD respond positively to psychostimulant medications (University of Pennsylvania Health System [UPHS] 2002). Stimulants are by far the predominant medical treatment for ADHD.

Because stimulants are abusable, the Drug Enforcement Administration tightly monitors and controls their legal production and distribution in the United states. The DEA's records showed that between 1991 and 2000, annual production of methylphenidate rose by 740 percent, or over fourteen tons produced per year. In the year 2000, America used eighty percent of the world's stimulants (United States Drug Enforcement Administration [DEA] 2000). In clinical studies, these stimulants produce

behavioral, psychological, subjective, and rebound effects similar to cocaine. In simpler terms, this data suggests that neither animals nor humans can tell the difference between cocaine, amphetamine, or methylphenidate when they are administered at comparable doses. Basically, they produce nearly identical effects and have the same potential for abuse (DEA 2000).

Psychosocial therapeutic techniques include: contingency management (e.g., point reward systems), cognitive-behavioral treatment (self monitoring, problem solving strategies), parent counseling and individual psychotherapy. Studies have shown that cognitive-behavioral treatment tends not to yield beneficial effects, but the remaining three have proven to improve functioning, when made available (UPHS 2002).

Most experts recommend a multimodal treatment approach for ADD/ADHD, consisting of a mix of medical, educational, behavioral, and psychological interventions. Classroom success may especially require this wide range of interventions. Most children with ADD/ADHD can be taught in the regular classroom setting with minor adjustments to the classroom, the addition of support personnel, or "pull-out" programs that provide special services outside of the classroom. More severely affected students may require self-contained classrooms (Children and Adults with Attention-Deficit/Hyperactivity Disorder [CHADD] 2003).

Controversies Surrounding Diagnosis and Treatment

There are many controversies surrounding the existence of ADD/ADHD including its diagnosis and treatment. The fundamental symptoms of the disorder are vague and very difficult to distinguish from everyday problems or problems that are altogether unrelated to the disorder. The symptoms cannot be authenticated by concrete

medical tests, thereby defining it as a syndrome rather than a disorder, disease, or illness. The diagnosis itself is suspect because those who make the determination clearly benefit from it since their patients often represent a significant portion of their clientele (DeGrandpre 1999:131). These issues should not negate the reality of the symptoms; however, the inconsistent history of diagnosis using a collection of symptoms, which are not unique to ADD/ADHD, rather than tests, is problematic.

The process of establishing "objective' diagnostic standards for ADD has itself been subjective. When the diagnostic standards were being revised for DSM-IV, the committee instituted a series of field trials in an attempt to correlate the number of symptoms to the degree of a patient's impairment. In each case, an experienced clinician ultimately determined the diagnosis after reviewing this information. These diagnoses in turn were used to determine what symptoms, and how many, were key to the diagnosis. Despite the finding of the field trials, politics inevitably prevailed in the process. The group recommended that five of the nine symptoms be enough to establish diagnosis, but the board decided on six to avoid diagnosing too many children with ADD. Rather than base their decision in "science," the board chose to take into consideration societal reaction to the change (Diller 1998:254).

The symptoms listed are vague and open to interpretation with the possibility of leading to an all-or-nothing diagnosis. Many symptoms use the word "often" which is not defined as a quantifiable measure. When given the choices of always, sometimes, seldom or never, there is not a guideline by which to go. "It has been shown that when parents are first presented with such measures—rather than asked simply to describe the behaviors in detail—they often choose one that sounds more serious, perhaps to reinforce

their own feeling that a problem indeed exists" (Diller 1998:254). The symptoms also are not mutually exclusive. Answering "yes" to the symptom "often loses things necessary for tasks and activities" may automatically create an answer of "yes" to "fails to finish schoolwork." (If one loses her textbook or pencil, one may not be able to complete her schoolwork.)

Another issue is that diagnosis relies almost exclusively on the basis of a patient's history. With other disorders, there are medical markers that reveal the presence of the illness. With ADD, there is no such marker. The disorder is defined completely by the symptoms, that are as previously mentioned, also the symptoms for many other childhood and adult disorders. Also, normal performance in many situations is not a disqualifier for ADD, as long as underperformance occurs in critical areas. A child who is able to concentrate very well on artwork and play who is struggling to complete schoolwork could still qualify for an ADD diagnosis as suffering from "selective inattention" (Diller 1998:255-256). A symptom many people experience without ADD.

Several Web-sites and books lead individuals to screening devices. These are not self-diagnostic tools, but if one scores a higher score she is encouraged to talk to a professional. Kathleen G. Nadeau, co-author of *Understanding Girls with AD/HD* included several pages of questions specifically to distinguish girls' ADD symptoms from "normal" childhood behavior. For example, two of the questions for pre-school girls are "Does she not show appropriate fear?" and "Does she talk very little in public?" (Faller 2002:2). Another example is that of the ADDvance AD/HD Self-Rating Scale for Girls. (ADDvance is a Web resource for women and girls with attention deficit disorders.) This self-assessment includes items such as, "Sometimes my mind wanders

when I'm trying to listen to the teacher," and "Sometimes, when I'm upset, I say things I don't mean." Like the DSM-IV diagnostic criteria, these statements are very dependent upon interpretation (how often is sometimes?) and even the present mood of the person doing the assessment.

The method of treatment has also been controversial. As briefly discussed before, the prescriptions given for ADD/ADHD treatment include Ritalin and Cylert, both of which are amphetamines. The nature of theses drugs, while like cocaine, will increase the attention span of any child, not just those with attention-deficit or hyperactivity. Typical of other central nervous system stimulants, high doses can produce agitation, tremors, euphoria, tachycardia, palpitations, and hypertension. Psychotic episodes, paranoid delusions, hallucinations, and bizarre behavioral characteristics similar to amphetamine toxicity have been associated with these drugs. Yet our nation produces and consumes 80 percent of the world's Ritalin (DEA 2000). The class of drugs used to treat ADD (including Ritalin, Adderall, Concerta, and others), also referred to as analeptics, account for nearly 20 million prescriptions in the United States, most of those going to children (Zernike and Peterson 2001)

The DEA expressed concern with the distribution of ADD/ADHD drugs by school nurses and the abuse potential in a report given before the Committee on Education and Workforce: Subcommittee on Early Childhood and Families on May 16, 2000. In the report, the agency expresses concern that there are no laws requiring accountability this controlled substance at schools. There have been reports of the medications being stolen from the relatively unsecured nurse's office both by students

and teachers. Methylphenidates have been seen at both the Federal and State levels in trafficking activities including street sales and multi-state distribution rings.

In sum, the diagnosis of ADD/ADHD remains a very subjective process that is not clearly defined. The inconsistencies of diagnosis, which relies on personal history as well as parents' and teachers' perceptions of behavior lead to the controversy surrounding diagnosis. Further controversy occurs when children are prescribed methylphenidate type drugs, like Ritalin. No one in the medical field is quite sure how Ritalin works to soothe hyperactivity and the potential implications of using amphetamine-like drugs are questionable.

Demographics of Differential Diagnosis

Although the investigation of ADHD has been extensive in the past three decades, the scientific study has been limited due to a lack of a single, consistent and even standard research protocol. Even exact prevalence is unknown due to these constraints. With no demographic or descriptive statistics on which to rely, there are disparities in identification, access to treatment, and information on comorbidities. Some clinical studies have identified potential risk factors, such as prenatal alcohol use and smoking, but these have not been thoroughly investigated (Lesesne, et al. 2000).

Some studies suggest that there is possibly a severe underdiagnosis of African-American children as well as other minorities and girls. The "average" known patient is a middle to upper middle class boy in the South or Midwest. Overall, incidence rates are unclear, but it is estimated that 2-10% of children have ADD/ADHD (Greenblatt 1994:89-95). According to a recent Mayo Clinic study, children between the ages of 5

and 19 have roughly a 7 percent chance of being diagnosed with ADHD, which would mean approximately five million children (Cray, et al 2003: 50).

In addition to overall prevalence variations, there are considerable differences inreported male to female ADD ratios, with figures ranging from 1.6:1 to 10.0:1. Some of this variability can be explained by the sample taken, either from the community or a clinic population. Clinic populations tend to show a greater preponderance of males (Greenblatt 1994:85). One aspect of ADD with which several researches concur is that girls either are not identified as having ADD or are identified later due to differences in symptomatology. Girls are much more likely to have the inattentive type of ADD, exerting extra effort to get decent grades. Girls do not as often exhibit the outwardly hyperactive signs that boys often do, so the suffering of a truly ADD girl goes unnoticed. A passive, nondisruptive, and "not a problem" attention deficit disordered girl runs the risk of remaining undiscovered while being at risk for academic underachievement and social and emotional disturbances (Greenblatt 1994:86). Girls are more likely to exhibit symptoms like daydreaming, disorganization, and poor handwriting. Not only are girls not diagnosed as often, but they are also very nearly missing from academic discussions of the disorder. "ADD/ADHD is the most highly researched childhood psychiatric condition, there are literally thousands of published academic articles…yet less than one-half of one percent have anything to do with girls" (Faller 2002).

Many physicians, like Lawrence H. Diller (author of *Running on Ritalin*), feel that the huge rise in Ritalin use in our country is telling us we should reexamine our demands on our children and the resources we offer them, their families and their schools. While Diller is not opposed to the prescription of Ritalin, he does identify a need to address

other roles such as economic, social and cultural factors involved in the ADHD diagnosis.

There is wide variety of use rates within our country—Hawaii has the lowest per capita Ritalin use in the nation. The highest using states tend to be in the Southeast and Midwest. There are also various "hot spots" of Ritalin use, such as the southeast corner of Virginia, where one in five white boys was taking Ritalin at school (Diller 2001:2). There are also areas where Ritalin is hardly used at all, especially in rural areas and within the inner city. Socioeconomic differences or unequal access to care are factors in these differences in diagnosis. "Children in wealthier communities and whites were more likely to get stimulants…Kids from poor families are more likely to be diagnosed with a 'conduct disorder' than ADHD and land in 'alternative' schools or the juvenile justice system." Regional differences may also reflect poor access to therapy in some areas, resulting in a "pressure to prescribe." Children in Louisiana and North Carolina are more than twice as likely as those in New Jersey and California to get stimulant prescriptions (Elias 2003:14).

Another example of the disparities in Ritalin prescription rates comes from HealthCanada, a federal department responsible for helping Canadians maintain and improve their health. The data and its conclusion were debated in an article and a series of letters in the Canadian Journal of Medicine. They examine Ritalin use rates in two large cities in British Columbia separated only by a short ferry ride. Victoria, a highly homogeneous white middle class community, used Ritalin nearly four times as much as Vancouver, an extremely heterogeneous community with large numbers of people of Asian descent. Access to care was not an issue, as all families were enrolled in Canada's

national health care plan (Diller 2001:3).

The example from HealthCanada reveals a drastic difference in diagnosis and treatment by social context. What does this mean for the children who are diagnosed in error, incorrectly diagnosed, or completely overlooked? Diller suggests that some of the differences in the HealthCanada case may be cultural, but that leaves one asking what is it about Western culture, particularly American culture, that medicates its children in this way?

Proposed Thesis Research

Extensive research has been done on the evolution of the disorder, including controversies surrounding diagnosis and diagnostic criteria, as well as research on the various treatment methods. This thesis will reference that research, but will not focus on it. The author wishes to explore the social dynamics (at both the macro and micro levels) that underlie the dramatic increase in the diagnosis and treatment of children in the United States for ADD. Why has there been an apparent explosion of the disorder? The number of children being treated for the disorder has more than doubled since 1990. A potentially disturbing trend is that the age of onset perceived by parents is going down. Children as young as three are being seen by doctors because their parents see them as potentially having ADD. This suggests the potential of an over-sensitivity to this disorder (Schnaiberg 1995:2).

This thesis will primarily use the social construction of illness, particularly the medicalization of deviance as a theoretical foundation. Peter Conrad suggests that the diagnostic explosion of attention deficit disorder may be in part due to what he terms the Pharmaceutical Revolution as well as the medicalization of childhood behavior that

resulted from it. According to Conrad, the Pharmaceutical Revolution really expanded in the 1960s and it was marked by an increase in confidence in the pharmaceutical approach to mental and behavioral problems (Conrad 2001:445). The pharmaceutical companies advertise on television and on the Internet as well as in magazines and newspapers. A popular support and information site for attention deficit disorder (Children and Adults with Attention Deficit Disorder or CHADD) is sponsored by the makers of Ritalin. The pharmaceutical companies promote their prescription medications as quick fixes to life's problems, including depression and attention deficit.

Another part of this is how the behavior of children has become medicalized. Conrad discusses the importance of medicalization as a means of social control (447). "Medicalization of mental illness dates at least from the seventeenth century…in recent year alcoholism, violence, and drug addiction as well as hyperactive behavior in children have all become defined as medical problems, both in etiology or explanation of the behavior and the means of social control or treatment" (447). Conrad attributes this both to the pharmacological advances in technology that affect behavior (i.e., methadone) as well as a humanitarian trend in the conception and control of deviant behaviors. This change in how society views deviance creates a wider space for children with behavioral problems to be labeled as having a disorder, rather than misbehavior.

The way Americans define childhood itself, not just child behavior, may also play a role. Some authors, such as Neil Postman and David Elkind, Ph.D, attribute changes in societal definitions of childhood as crucial to elements of social change and our understanding of children's health. Elkind, author of *The Hurried Child: Growing Up Too Fast Too Soon* attributes the change in levels of diagnosis to the faster pace of

society. He discusses the dangers of exposing children to the overwhelming pressures of our fast moving culture. He asserts that we are hurrying our children to do everything, especially to grow up. These pressures compounded with an ever increasing television and Internet use, as well as video games, have reduced the child's ability to handle just being a child let alone growing up quickly (Elkind 2001). This approach and others addressing the social construction of childhood will help to inform the author when asking: How do changing family dynamics (i.e., single parenthood, divorce, having children later in life, etc.) influence the diagnosis of primarily childhood disorders, particularly ADD? Do parents feel as if the childhood experience of their children is any different from their own? The author anticipates that how we define childhood has a very important role in the explosion of diagnosis. While we are gradually expecting our children to adapt to very adult situations, there is, at times, an extreme backlash resulting in our expectations of childlike behavior. We seem to want our children to behave like children only when we deem it appropriate and often we leave it up to the children to figure that out.

The author also wishes to address the major disparity in diagnosis rates between genders. Why is there such a large disparity between diagnosis rates for female and male children? Does it reveal anything about how Americans value their female children? Are boys "naturally" more prone to having ADD? Are boys being labeled more often for social control purposes? Why are girls labeled differently when they are diagnosed? The author will use theories of gender, particularly theories addressing sex/gender differences and the role of gender in education, to inform this process. The author expects that the gender gap in diagnosis is related to different values being placed on male and female

children. Despite all of the progress that has been made in gender equality, women still earn roughly 75 cents for every male dollar. Male children appear to be favored slightly more than girl children. The differences are not tremendous, but they cannot be overlooked (Leonhardt 2003).

In 2000, it was estimated that 42 percent of American households were connected to the Internet (U.S. Census Bureau 2000). The author also wishes to address the spread of medical information, particularly mental illness information, and the availability of lay diagnostic tools on the Internet. This process will be a main focus of this thesis. Has the availability of access to the Internet played a role in the awareness of ADD for parents and teachers? Has this "awareness" increased the sensitivity of both parents and teachers and thereby increased the referrals to doctors for ADD symptoms? How does the interaction between the parents and teachers influence diagnosis? The author expects to find that most parents have had access to the Internet and may be looking for a diagnosis to explain why their children are not performing at the level that is expected of them.

The educational system in the United States has been experiencing a great amount of strain, due to widespread fiscal crisis and teacher shortages. This has resulted in larger student to teacher ratios and teachers being asked to cover subject areas that they are not trained to teach. How have these structural problems influenced the classroom? Do teachers feel more strained? Are the large class sizes making it difficult to keep track of student progress or difficulties? Does it create an environment for more behavioral problems? How are teachers taught to identify and deal with behavioral problems and/or potential mental illness, particularly ADD?

To answer these questions, the author will use semi-structured interviews and content analysis. The author will interview teachers and parents in the Flagstaff Unified School District. There are approximately 150 teachers in the early elementary level (K-3). The author will obtain a list from FUSD of teachers in this grade range. A random sample will be taken from those teachers in the early primary grades (K-3), as most diagnosis occurs at this age level. Teachers will be interviewed about their awareness of ADHD and their experiences both in identifying potential attention deficit issues and in teaching attention deficit children. The author hopes to address the topics of gender issues in the classroom, any training they received in identifying learning disabilities and behavior issues, larger class size, Internet access and use, and how they define childhood.

In addition, the author would like to conduct interviews of parents of ADHD children. Parents will potentially be identified through parent organizations, support groups, and advertisements in the local paper. Parents will also be asked about identifying attention issues, in addition to how they became aware of the disorder. The author hopes to address the following issues in the interview: how parents experienced their own childhood compared to their children, Internet access and use, family structure and dynamics, the process of ADD diagnosis, and how they cope with ADD as a family.

The author will also conduct a content analysis of web-sites dealing with ADHD, including support group sites, information sites (including those sponsored by pharmaceutical companies like Novartis), and general medical sites (like WebMD). The new availability of this widespread medical knowledge changes the dynamics of doctor-patient relationships and how we define our health and illness. The content analysis will provide information on the availability and accuracy of information about attention

deficit and of the self/lay diagnostic tools available, which parents and teachers may use to assign meaning to and develop strategies to cope with children's behavior. The author will use three search engines (Google, Ask Jeeves, and AOL) to identify attention deficit disorder websites. The author will also locate and explore general medical, mental health, and learning disability websites. The author will identify those sites providing self-diagnostic tools and compare them. The information provided on these widespread websites will be analyzed and compared.

References

ADDvance: A resource for women and girls with attention deficit disorder. 2003. "Checklist to help identify girls with AD/HD, Retrieved April 20.

American Psychiatric Association. 2000. Diagnostic and Statistical Manual of mental Disorders, Fourth Edition, Text Revision. Washington, DC, American Psychiatric Association, 2000

Conrad, Peter. 2001. "The Discovery of Hyperkinesis: Notes on the Medicalization of Deviant Behavior." Pp. 443-451 in *The Production of Reality: Essays and Readings on Social Interaction*, 3rd edition, edited by J. O'Brien and P. Kollock. Thousand Oaks, CA: Pine Forge Press, Inc.

DeGrandpre, Richard, Ph.D. 1999. *Ritalin Nation: Rapid-Fire Culture and the Transformation of Human Consciousness*. W.W. Norton and Company: New York.

Diller, Lawrence H., MD. (1998) *Running on Ritalin: A Physician Reflects on Children, Society and Performance in a Pill*. Bantam.

-----. 2001 "Controversies in the Diagnosis and Treatment of ADHD: One Doctor's Perspective" for the National Center for Gender Issues and AD/HD, 2. http://ncgiadd.healthology.com

Elias, Marilyn. 2003 "Ritalin prescribed at disparate rates: Regional discrepancy 'raises a lot of questions'." *USA Today*, February 3, B14.

Elkind, David, PhD. 2001. 3rd ed. *The Hurried Child: Growing Up Too Fast Too Soon*. Cambridge, MA: Perseus Publishing.

Faller, Mary Beth. "Girls and ADD:Attention Deficit Disorder is often undiagnosed in females." November 18, 2002, reprinted for New England Center for Psychiatric Treatment and Education. http://www.simonepstein.org

Fausto-Sterling, Anee. 2000. *Sexing the Body: Gender Politics and the Construction of Reality*. New York: Basic Books.

Friedman, Margaret S. Psy.D., 1996. "Oh Boy…Girls have ADD too!" *The Medical Reporter*. Retrieved from medicalreporter.health.org/tmr0796/add2.html.

Greenblatt, Andrea P. 1994 "Gender and ethnicity bias in the assessment of attention deficit disorder." *Social Work in Education*, 16(2): 89-95.

Griffith, Dorsey. 2002. "ADHD in girls comes in focus." *San Francisco Bee*, October 27. Retrieved from www.cagifted.org/adhdg.htm on April 9, 2003.

References, Cont.

Lorber, Judith. 1994. *Paradoxes of Gender*. New Haven, CN: Yale University Press.

Sadker, Myra and Sadker, David. 1994. "Missing in Interaction" from *Failing at Fairness*, New York: Scribner and Sons.

Schnaiberg, Lynn. 1995. "Experts, educators question ADD diagnoses." *Education Week*, February 22, pp 1-2.