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Ritalin and the Child

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ABSTRACT

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This study focuses on Attention Deficit Hyperactivity Disorder (ADHD) the history of the disease, sufferers, individual accounts from sufferers, and both positive outcomes and negative repercussions of its treatment. Extensive secondary research and the collection of a personal account form the body of the work. The information focuses attention on key points regarding the historical background of ADHD, including: the discovery of the disease, change in categories of drugs used to control it, and the rate of evolution in thoughts on and treatment of the disease. Also researched are the various guidelines as well as ignored factors in the diagnosing of ADHD, in addition to information dealing with alternative therapies. A significant portion of this thesis involves discussing ADHD as it relates to the family, and society. Causal factors such as divorce and the effect parents, educators, and the media have on treatment strategies are addressed.

DEDICATION

The author wishes to dedicate this text to a generation of children, who by no fault of their own have been lost in the shuffle of life, as we all now know it.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER I

FOCUS ON THE MATERIAL

Problem Statement

In the past 20 years a very interesting sociological change has taken place. Societies have become faster and extremely complex environments for living. With the ever-growing number of divorces, single parent homes, and foster care family situations, our children are suffering the consequences. Even in conditions where there are two parents present, kids seem to be on their own as both adults often work.

One of the very disturbing trends accompanying this change is the increase in the number of children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). This behavioral diagnosis is a fairly new way of applying a label to children with deviant behaviors. Along with this diagnosis, comes the widespread practice of medicating these children in an attempt to deter their bad behavior. By putting this diagnosis into a medical category, parents find it easier to allow their children to be drugged, with little knowledge of any long-term effects the medication might have for them. This trend is becoming more and more acceptable in families of the late 20th and early 21st centuries and is alarming simply because no long-term studies exist to determine if the procedures used to diagnose, the guidelines for medication, and follow-up treatments are appropriate to the problem, or even under what context the problem exists.

Purpose of Study

Behavior modification and management drugs are a fairly new sector of treatment for the population and one of the few, which treats conditions that may have no outwardly observable or quantifiable cause. It would seem that behavior modification drugs are an area of treatment ripe for miscalculation, misconduct, and misuse on many levels.

The purpose of this study is to determine the history of and influences on behavior modification drugs and the theories that surround their usage, as that said usage pertains to a particular class of drugs—Ritalin and Ritalin-type medications, and a particular set of users—children at or below school-age who have been diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) or similar conditions. This study further attempts to view

ADHD within its historical context and to define ADHD and associated conditions, discover the boundaries of its diagnosis, assess the viability of alternative treatments, assess the viability of current medications and the sociological effects of the disease that contribute to its presence and diagnosis. Also this study looks at the way government, the North American public and pharmaceutical companies interact to bring about the climate, which encourages the diagnosis of ADHD and opts for medical alternatives to traditional behavioral modification techniques and therapies.

Introduction

My interest in the ever-growing phenomenon of Attention Deficit Hyperactivity disorder (ADHD) began several years ago with my own nineteen-year-old nephew. At the time of his diagnosis, parents were just accepting the help they were offered, even if it meant treatment with amphetamines like Ritalin.

My nephew was adopted at birth, and from the beginning he had birth defects, and developmental delays. His father is a board certified Pediatrician, and at the time of his birth his mother was a neonatal nurse at a local hospital. They both understood the problems they might face in the future; however, nothing could have prepared them for the behavioral problems that their son would exhibit very early in life. By the age of three he was defiant and not easily persuaded to follow directions. By pre-school he was unable to follow even the simplest directions and just refused to stay on task.

By the time he entered elementary school he had become more and more frustrated with the expectations placed on him. His academic standing was never above average and with each passing year he fell further and further behind the other children. When his parents sought professional help they were immediately offered the options of medication and behavioral management regimens. At this point any help was welcome. His school was a public institution at that time and offered special help for students with learning disabilities.

For a while the prescribed medicine was Ritalin and my nephew seemed to become more manageable at school. His grades were passing, and it wasn't such a

struggle to get him to do his homework. Overtime, new and improved medications were available and each time he changed to a new medication certain behaviors resulted.

Sadness and depression soon became major side effects for my nephew. He didn't really have friends other than his sisters and a close cousin. Weight gain was also a major problem. His mother could not make the decision if the side effects were worse than the problem itself. My nephew made the decision himself. He stopped taking all the drugs that had for so long controlled his life. At that time he was enrolled in a private school with no extra help or programs for behaviorally or educationally challenged children. His parents hired tutors and his new friends helped him to keep his academic standing within passing range. Without the drugs he was happier and more mobile. He made friends and seemed to enjoy his life more. His academic life continued to be a difficult struggle; however, his life was expanding in other ways.

His parents had to accept that he was not going to be an above average student, and with that understanding they had to put themselves in a mindset that would allow them to set their own goal and direct his attention towards high school graduation, even if that goal and his focus on it seemed impossible to maintain.

My nephew at nineteen continues to have conduct and defiance problems, problems that will no doubt follow him through adulthood. Despite these obstacles he has finally made friends of his own, maintains a level of energy throughout the day, and feels a general sense of well-being, which is a state he did not find himself in for many years.

Years later my younger brother and his wife had a son. When this nephew was two years of age his parents divorced. Not long after this divorce this nephew became more and more easily agitated and increasingly difficult to handle. By the time he entered pre-school his behavior was termed "out of control". He was seen as the class bully because of his tendency to act out in class and his learning was put in jeopardy by his inability to stay on task.

Halfway into the first grade his teachers were at the point of expelling him from school entirely. They insisted my brother seek help for him. As they requested, my

brother did seek help and was immediately offered Ritalin-type medications to take care of or treat these problems.

My brother flatly refused to put his son on medication. The school system agreed to follow an individual education plan (IEP) that would assist his son in areas where he needed help, like reading. This nephew is in second grade now, and while some days are harder than others and his behavior is not consistent, he is able to function in the classroom without any medication. In both cases it is a struggle that my siblings, and the whole family must face together. In both cases we have chosen to face the problem of ADHD without drug therapy.

No one knows what the long-term prognosis of ADHD is, and studies related to long-term use of Ritalin-type drugs only show fourteen-month outcomes. This leaves parents with nowhere to turn and nothing to rely on except their own instincts and what little information is available if they want to make an informed decision about their child's drug therapy. In the fall of 1999 I accepted an RN position at a local psychiatric facility. I worked on a unit that treated children up to age eleven for behavioral and psychiatric disorders.

While working on this unit I became increasingly uncomfortable with the practices and standards used to govern the administering of narcotics to children, some of them as young as three years old. I watched, and yes even participated in, what I eventually felt was the making of drug addicts out of children.

Granted, the treatment plans of these children also contained behavioral modification that might put parents minds at ease, but in my experience when behaviors didn't change fast enough, medications were changed and/or the dosages were increased. These children would often experience insomnia and a drug would be added to combat this side effect. If they showed signs of depression, further drugs were prescribed and if undue weight gain resulted there were yet more prescriptions for that.

I am not saying that all of these children were diagnosed poorly or wrongly medicated. I am saying that other treatment modalities may have worked. Many of these children lived in home environments that were not conducive to good behavior. I felt that we were masking superficial problems whose roots were deeper and more complex than

might successfully be addressed by the drugs offered or the limited time children stay in such facilities.

After working for nearly two years in this hospital, I could not find justification for continuing these practices, which made me uncomfortable. I have since done extensive and much needed research on the subject, and feel a sense of resolve about what I feel is right for the correct long-term treatment of children and drug therapy for behavior control.

Limitations and Assumptions

This study focuses on only a circumspect amount of the data available for research on ADHD and Ritalin and Ritalin-type drug uses. This study does not assess the presence of preexisting psychological conditions, heredity of ADHD, or other preexisting psychological and/or physiological conditions working in tandem with ADHD. The focus of this study limits itself to the historical background of ADHD and its associated drugs, the medical diagnosis of ADHD and associated problems with this diagnosis, and the interplay between this disease and the greater society through public advertisement and pressures external to those instigated by the family of the child diagnosed with ADHD. This study does not assess the sociological ramifications of ADHD on adults with the diagnosis, or the specific issues related to ADHD and ethnicity or gender.

This study is also limited by secondhand accounts from available research sources and does not depend on independent research projects, beyond one interview conducted with an individual concerning his haven taken Ritalin in a school environment, for its primary information. Several of the assumptions of this study have been substantiated through first-hand experience on the part of the researcher dependent upon the researcher's background as a registered nurse with particular experience in the psychiatric care and medication of troubled juveniles. This study limits itself to the opinion and conclusions garnered from this experience, and does not attempt to associate these opinions and conclusions with any specific patient or specific experience that the researcher encountered while working as a psychiatric nurse. This limitation is self-imposed as any specific data used in this study would have been gathered from an underage individual without the

consent of a parent, guardian, or court-appointed official and would thereby be invalid and a violation of these individual's rights.

CHAPTER II

HISTORICAL BACKGROUND

Discovery of ADHD

The brief history of the development of ADHD and the practice of drug therapy for the behavior modification of children began with the practice of drugging delinquent boys with amphetamines. It began in the mid-1930's with a physician in Providence, RI. Dr. Charles Bradley decided to study what caused delinquent behavior in adolescent boys. In his study he happened upon a way to calm the boys bad behavior through drugs. He found that giving these boys stimulants like amphetamines actually aided in increasing their ability to remain attentive and focus in school. Thus the first generation of drugs to treat hyperactivity was born (Park, 63). During this time the primary focus of medication for behavior modification therapy was to quiet the delinquent or antisocial behavior of young men. Early recommendations for the use of medication therapy were limited to boys who were considered beyond the help offered by regulated environments (i.e. reformatories, orphanages, or other public programs for children). In the early history of amphetamine use to medicate behavior disorder, there was no clinical diagnosis such as ADHD and the problem was one considered isolated to "bad" adolescent males from unstable or unfavorable family environments. In short, the behavior being modified was not considered to be malformed by some quantifiable or biological cause but rather by a combination of lack of parenting and a possible inheritable characteristic towards delinquency. This diagnosis was not applied often to females though one wonders why it was not, and it was certainly not applied to many children outside the public systems, which care for and recommend medication for children without familial supervision.

This early attempt to modify behavior with amphetamines was quickly replaced by ever-increasing and evolving drugs, which are now part of a drug cocktail commonly prescribed to children who have been diagnosed with ADHD. What is the future like for these children? What prospects can they have for healthy minds, bodies, and families? How will long-term amphetamine use affect the growing bodies of a substantial portion

of the American population? How do families cope with Ritalin and other drugs, where else can they turn, and what should they know about all these new drugs? These remain in large part unanswered questions.

Rate of Evolution in Drugs for the Treatment of ADHD

The treatment of ADHD, once achieved with the administration of amphetamines, has evolved into the dispensation of an entire class of drugs. Stimulants, antidepressants and blood-pressure drugs are all now used to treat ADHD. Stimulants include: Ritalin (methylphenidate), Metadate ER and Concerta (longer-acting types of methylphenidate, Dexedrine and DextroStat (dextroamphetamine or d-amphetamine), Adderall (d-amphetamine and amphetamine mixture), Desoxyn (methamphetamine), Gradumet (long-acting form of methamphetamine), and Cyclert (pemoline) (Breggin, Talking Back to Ritalin, Appendix A). These drugs all work in primarily the same way by increasing brain function in key areas of organization and concentration by saturating the nerve cells with chemicals like nor epinephrine, serotonin, and dopamine. Twenty percent of those who are prescribed amphetamines do not respond to them correctly or respond to them in some maladaptive way. Many of these individuals are prescribed an even older class of drugs for behavior modification called trycyclic amines, or antidepressants. These drugs primarily function to maintain or increase levels of serotonin or nor epinephrine in the brain but may show no appreciable effect on the symptoms of ADHD. What has been somewhat effective in the treatment of ADHD is a class of drugs called alpha-adrenergic agents. These drugs function to maintain or increase levels of nor epinephrine in the brain and were originally used to treat high blood pressure. These drugs have also proved effective in reducing the presence of other disorders in patients like excessive anxiety and impulse control issues common to individuals diagnosed with ADHD. These drugs are not the only drug therapies available. A comprehensive table listing medications used to treat ADHD and common dosages for these drugs follows in the following section.

Categories of Drugs Used to Treat ADHD

Table 1 Common Medications Used to Treat ADHD:

Medication	How supplied	Usual initial dose	Single-dose range	Dosage range	Dosage schedule
Methylphenidate, immediate release Generic, Ritalin, Methylin	Tablet: 5, 10 and 20 mg	0.3 to 0.6 mg per kg per dose, or 2.5 to 5 mg	0.3 to 0.8 mg per kg	5 to 80 mg per day	Two or three times daily: full dose given 30 minutes before breakfast and lunch; half-dose given at 3:00 to 4:00 p.m.
Ritalin-SR	Tablet: 20 mg	20 mg	0.6 to 2 mg per kg, or 20 to 40 mg	20 to 80 mg per day	Once or twice daily
Concerta	Tablet: 18 and 36 mg	18 mg	18 mg	18 to 54 mg per day	Once daily
Generic, Dexedrine	Capsule: 5, 10 and 15 mg	0.15 mg per kg, or 2.5 to 5 mg	0.15 to 0.5 mg per kg	5 to 40 mg	Two or three times daily
Dexedrine Spansules	Capsule: 5, 10 and 15 mg	5 mg each morning	0.3 to 0.8 mg per kg, or 5 to 20 mg	5 to 40 mg per day	Once or twice daily
Amphetamine-dextroamphetamine (Adderall)	Tablet: 5, 10, 20 and 30 mg	2.5 to 5 mg	0.15 to 0.5 mg	2.5 to 40 mg per day	Once or twice daily
Pemoline (Cyclert)	Tablet: 18.75, 37.5 and 75 mg Chewable tablet: 37.5 mg	18.75 mg each morning	0.5 to 2.5 mg per kg	2 mg per kg, or 18.75 to 112.5 mg per day	Once or twice daily

Table 2 Symptoms Associated with Drugs Prescribed for ADHD

Methylphenidate, immediate release Generic, Ritalin, Methylin	Average: 1.9 hours; range: 0.3 to 4 hours	20 to 60 minutes	3 to 6 hours	Contraindications: motor tics, glaucoma, history of seizures, hypertension, pregnancy Recommended monitoring: height, weight, blood pressure, pulse Precautions: avoid decongestants Adverse effects: rebound or deterioration of behavior when medication wears off; emotional instability, tearfulness, social withdrawal, flattened affect, insomnia, poor appetite, stomach pain, weight loss, reduced growth velocity, headache
Ritalin-SR	Average: 4.7 hours; range: 1.3 to 8.2 hours	60 to 90 minutes	5 to 8 hours	Same as above Tablets should not be cut in half or crushed.
Concerta	NA	1 to 2 hours	12 hours	Same as above
Generic, Dexedrine	1 to 2 hours	20 to 60 minutes	4 to 6 hours	Same as methylphenidate *plus* avoid concomitant use with monoamine oxidase inhibitors
Dexedrine Spansules	NA	60 to 90 minutes	6 to 10 hours	Same as methylphenidate
Amphetamine-dextroamphetamine (Adderall)	1 to 2 hours	30 to 60 minutes	4 to 6 hours	Same as methylphenidate
Pemoline (Cyclert)	Variable Steady state in 2 to 3 days Titrate dosage every 3 to 4 weeks	2 hours (variable)	6 to 10 hours	Informed consent must be obtained before this drug is prescribed. Required monitoring: alanine aminotransferase level at baseline and every 2 weeks; inquire about anorexia, malaise, gastrointestinal symptoms, dark urine. Adverse effects: choreoathetoid movements, liver dysfunction, liver failure, *plus* same as methylphenidate

(Adapted from: Smucker and Hedayat. *American Family Physician* Vol. 64, No. 5 / September 1, 2001. www.aafp.org/afp)

With all of these drug options available for the treatment of ADHD one would assume that ADHD is a definite disease with a definitive diagnosis; however, this is far from the case. The diagnosis of ADHD is more complex than first imagined. The exact definition of this disease, the steps of its diagnosis, and problems with that diagnosis are the focus of the next chapter.

CHAPTER III

DIAGNOSING ADHD

DSM IV Guidelines for ADHD

One must ask if ADHD is a medically recognized disorder or illness. While it is known that Dr. Bradley was studying this subject in the mid-1930's, it wasn't until the early 1970's that an actual "name" was given to the problem. Before that time, these children, predominantly boys, were just considered deviant or delinquent. They were dealt with according to their individual acts and consequences were attached to such acts.

Developments in the understanding of ADHD have lead to firmer definitions. The American Academy of Pediatrics, and the American Academy of Child and Adolescent Psychiatry have put together key elements and specific guidelines to follow in diagnosing ADHD. The following rating scales offer very specific symptoms that psychiatric professionals have devised to aid in the recognition and ultimate diagnosis of ADHD to be used by families, educators, family physicians, as well as psychiatric care professionals who have children with suspected ADHD referred to them. While these standards are not the only interpretation of ADHD and its symptoms, they are the recognized guide to a medically valid diagnosis of ADHD and the checklist for parents, educators, and physicians is also thought to be helpful in the diagnosis of associated conditions which may reveal that the initial diagnosis of ADHD is masking another condition with its own symptoms and evaluation procedures.

Combined AAP and AACAP Practice Guidelines for the Evaluation of ADHD:

Recommendation 1:

In a child 6 to 12 years of age who presents with inattention, hyperactivity, impulsivity, academic underachievement or behavior problems, the primary care physician should initiate an evaluation for ADHD. The initial assessment should include the following:

a. Standard history and physical examination, with the AACAP recommending a review of the child's developmental history, confirmation of normal hearing and vision, and a review of the family history for ADHD, learning difficulties or psychiatric illness
b. Neurological examination
c. Family assessment, with the AACAP recommending assessment of family stressors and family coping style
d. School assessment (see recommendation 4)

Recommendation 2:
The diagnosis of ADHD requires that a child meet diagnostic criteria for the disorder. (See the Combined AAP and AACAP Practice Guidelines for the Symptoms of ADHD)

Recommendation 3:

The assessment of ADHD requires evidence directly obtained from parents or caregivers regarding the core symptoms of ADHD in various settings, child's age at onset of the symptoms, duration of symptoms and degree of functional impairment.

a. Use of (ADHD-specific) scales is a clinical option when evaluating a child for ADHD.
b. Use of broadband scales is not recommended in the diagnosis of ADHD.

Recommendation 4:

The assessment of ADHD requires evidence obtained directly from the classroom teacher (or other school professional) regarding the core symptoms of ADHD, duration of symptoms, degree of functional impairment and coexisting conditions in the child. A physician should review any reports from a school-based multidisciplinary evaluation, including assessments from the child's teacher or other school-based professional.

A. Use of (ADHD-specific) scales is a clinical option when evaluating a child for ADHD.
B. Use of broadband scales is not recommended in the diagnosis of ADHD.

Recommendation 5:
The evaluation of a child with ADHD should include an assessment for coexisting conditions (i.e., learning and language disabilities, oppositional defiant disorder, conduct disorder, anxiety and depression).

Recommendation 6:
Other diagnostic tests are not routinely indicated to establish the diagnosis of ADHD.

(Adapted from the American Academy of Pediatrics Committee on Quality Improvement, Subcommittee on Attention-Deficit/Hyperactivity Disorder. March 2001: Prevalence and Assessment of Attention-Deficit/Hyperactivity Disorder in Primary Care Settings Volume 105, Number 5 May 2000, 1158-1170).

Combined AAP and AACAP Practice Guidelines for the Symptoms of ADHD:

A. Either 1 or 2:
    1. Six (or more) of the following symptoms of inattention have persisted for at least six months to a degree that is maladaptive and inconsistent with developmental level:

Inattention

a. Often fails to give close attention to details or makes careless mistakes in schoolwork, work or other activities
b. Often has difficulty sustaining attention in tasks or play activities
c. Often does not seem to listen when spoken to directly
d. Often does not follow through on instructions and fails to finish schoolwork, chores or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
e. Often has difficulties organizing tasks and activities
f. Often avoids, dislikes or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
g. Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books or tools)
h. Is often easily distracted by extraneous stimuli
i. Is often forgetful in daily activities

2. Six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least six months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

a. Often fidgets with hands or feet, or squirms in seat
b. Often leaves seat in classroom or in other situations in which remaining seated is expected
c. Often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
d. Often has difficulty playing or engaging in leisure activities quietly
e. Is often "on the go" or acts as if "driven by a motor"
f. Often talks excessively

Impulsivity

g. Often blurts out answers before questions have been completed
h. Often has difficulty awaiting turn
i. Often interrupts or intrudes on others (e.g., butts into conversations or games)

Other Considerations

a. Some hyperactive-impulsive or inattention symptoms that caused impairment were present before the age of seven years.
b. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).
c. There must be clear evidence of clinically significant impairment in social, academic or occupational functioning.
d. The symptoms do not occur exclusively during the course of a pervasive developmental disorder, schizophrenia or other psychiatric disorder and are not better accounted for by another mental disorder (e.g., mood disorder, anxiety disorder, dissociative disorder or a personality disorder)

(Adapted from the American Academy of Pediatrics Committee on Quality Improvement, Subcommittee on Attention-Deficit/Hyperactivity Disorder. March 2001: Prevalence and Assessment of Attention-Deficit/Hyperactivity Disorder in Primary Care Settings Volume 105, Number 5 May 2000, 1158-1170).

The family assessment rating scale (See Table 3) can be used by any individual to assess the common markers for ADHD. However, the assessment of family members and teachers are subject to variation and there is no standard under which their answers are judged. Perceptions of the severity of symptoms can be aggravated, not only by factors unknown to the primary evaluator, but to the familial evaluators own biases. Despite this drawback, the rating scale remains one of the most often used, but least explained evaluation tools in the fight against ADHD. While the family assessment scale is a valuable tool, the combined AAP and AACAP symptom guidelines are a more precise system, and are generally regarded as standards for use by healthcare providers. However, evaluation between the healthcare evaluator and familial evaluators using both the familial rating scale and the healthcare symptoms guidelines might increase the understanding of both parents and educators. This increased understanding might relieve some of the anxiety associated with the process, and in turn eliminate even more potential for misdiagnosis.

Table 3 ADHD Rating Scale IV

Child's name: _____ Sex: M F Age: _____ Grade: _____

Completed by: ☐ Mother ☐ Father ☐ Guardian ☐ Grandparent ☐ Teacher

Circle the number that best describes the child's behavior over the past six months.

	Never or rarely	Sometimes	Often	Very often
1. Fails to give close attention to details or makes careless mistakes in schoolwork.	0	1	2	3
2. Fidgets with hands or feet, or squirms in seat.	0	1	2	3
3. Has difficulty sustaining attention in tasks or play activities.	0	1	2	3
4. Leaves seat in classroom or in other situations in which remaining seated is expected.	0	1	2	3
5. Does not seem to listen when spoken to directly.	0	1	2	3
6. Runs about or climbs excessively in situations in which it is inappropriate.	0	1	2	3
7. Does not follow through on instructions and fails to finish work.	0	1	2	3
8. Has difficulty playing or engaging in leisure activities quietly.	0	1	2	3
9. Has difficulty organizing tasks and activities.	0	1	2	3
10. Is "on the go" or acts as if "driven by a motor."	0	1	2	3
11. Avoids tasks (e.g., schoolwork, homework) that require sustained mental effort.	0	1	2	3
12. Talks excessively.	0	1	2	3
13. Loses things necessary for tasks or activities.	0	1	2	3
14. Blurts out answers before questions have been completed.	0	1	2	3
15. Is easily distracted.	0	1	2	3
16. Has difficulty awaiting turn.	0	1	2	3
17. Is forgetful in daily activities.	0	1	2	3
18. Interrupts or intrudes on others.	0	1	2	3

As was the case with the personal interview conducted for this study, parents are often confused by the results garnered from all of these forms. No sufficient explanation was made the parent or informant questioned for this study and the parent expressed self-termed “anxiety” over the amount of figures, numbers, and statistics that healthcare and education providers offered with little or no explanation. The parent expressed confusion concerning how it was determined that their child exhibited “medically significant” behaviors that were “any worse” than other children. The ADHD Rating Scale Scoring and Norms (Table 4) is an often-underused resource to help parents comprehend how far their child falls outside the normal percentile ranges. Such information is essential to fully informed parental consent. Parents may choose alternative therapies, excluding Ritalin and Ritalin-type drugs; if they feel their child is not significantly deviated from the norm.

Table 4 ADHD Scaling Ratings and Norms

Scoring Instructions for Form Completed by Parent or Guardian

1. Add up all the odd-numbered items to get a score for the inattention subscale (for example, if the rater circles 2, 0, 1, 3, 4, 1, 2, 0, 1 for the odd-numbered items, the summed score would be 14): _____.
2. Add up all the even-numbered items to get a score for the hyperactivity-impulsivity subscale: _____.
3. Add both subscale scores together to get a total score: _____.
4. Look at the scoring table that is appropriate for the child's gender and the home version.

SCORE INTERPRETATION: In most instances, children who score above the 93rd percentile meet diagnostic criteria for ADHD.[13]

Scoring tables for home version: norms for gender and age

Boys	Inattention		Hyperactivity-impulsivity		Total score	
Age (years)	93rd %	98th %	93rd %	98th %	93rd %	98th %
5 to 7	15.0	20.0	17.0	22.0	30.2	38.9
8 to 10	15.0	22.2	15.0	21.2	27.0	42.2
11 to 13	18.5	24.0	16.0	21.0	34.0	47.0
14 to 18	15.6	23.0	11.0	16.3	27.0	36.3
Girls	**Inattention**		**Hyperactivity-impulsivity**		**Total score**	
Age (years)	93rd %	98th %	93rd %	98th %	93rd %	98th %
5 to 7	12.0	18.0	13.0	19.7	24.0	30.0
8 to 10	12.0	16.4	9.0	15.4	20.0	30.4
11 to 13	12.8	21.0	9.0	12.0	20.0	28.5
14 to 18	12.2	16.5	10.0	16.0	22.0	32.5

Scoring Instructions for Form Completed by Teacher

1. Add up all the odd-numbered items to get a score for the inattention subscale (for example, if the rater circles 2, 0, 1, 3, 4, 1, 2, 0, 1 for the odd-numbered items, the summed score would be 14): _____.
2. Add up all the even-numbered items to get a score for the hyperactivity-impulsivity subscale: _____.
3. Add both subscale scores together to get a total score: _____.
4. Look at the scoring table that is appropriate for the child's gender and the school version.

SCORE INTERPRETATION: In most instances, children who score above the 93rd percentile meet diagnostic criteria for ADHD.[13]

Scoring tables for school version: norms for gender and age

Boys	Inattention		Hyperactivity-impulsivity		Total score	
Age (years)	93rd %	98th %	93rd %	98th %	93rd %	98th %
5 to 7	22.0	26.1	22.0	27.0	41.0	51.0
8 to 10	25.0	27.0	25.0	27.0	46.0	52.8
11 to 13	24.0	27.0	18.0	24.6	37.9	49.1
14 to 18	21.3	26.5	17.3	21.0	34.0	44.0
Girls	**Inattention**		**Hyperactivity-impulsivity**		**Total score**	
Age (years)	93rd %	98th %	93rd %	98th %	93rd %	98th %
5 to 7	21.0	24.0	21.1	25.8	40.0	46.8
8 to 10	21.0	26.0	16.7	25.0	34.9	50.0
11 to 13	19.0	24.0	14.8	23.5	31.4	42.1
14 to 18	14.8	18.0	9.0	12.7	21.8	27.7

(All tables Adapted from: Smucker and Hedayat. *American Family Physician* Vol. 64, No. 5 / September 1, 2001. www.aafp.org/afp).

Adherence to DSM IV Guidelines for Diagnosing ADHD

These standards cannot be taken lightly as up to Nineteen percent of school age children have behavioral problems with half of that group displaying ADHD symptoms, (Smucker and Hedayat, 817). The family physician is usually asked to evaluate the child when he or she is doing poorly in school, has disruptive relationships with peers or parents, and displays defiance when parents discipline them. Screening for the presence of a co-morbid condition, i.e. Depression, Conduct Disorder[1], Oppositional Defiance Disorder[2], Tourette's syndrome[3], or Sexual Abuse[4] is of the utmost importance when a proper diagnosis is to be made and treatment is expected to be successful. A systematic approach to diagnosis can help the doctor avoid the tempting and time efficient urge to forego a comprehensive evaluation and instead write a prescription and recommend a follow-up which may or may not happen depending on the time constraints of both the parents and the physician.

Any successful effort to treat a child is a cooperative one. Parents and teachers also need to be patient when seeking help for these children. The final diagnosis may, and should require many office visits. Numerous tests are required in the DSM IV guidelines, to finalize the diagnosis and treatment of the child with suspected ADHD.

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[1] A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th Ed. Washington, D.C.: American Psychiatric Press, 1994 (651)

[2] A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th Ed. Washington, D.C.: American Psychiatric Press, 1994 (802)

[3] A consistent pattern of non-rhythmic, rapid and recurrent motor or vocal tics is present. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th Ed. Washington, D.C.: American Psychiatric Press, 1994 (1170)

[4] Any pattern or instance of inappropriate physical contact which may or may not include actual intercourse. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th Ed. Washington, D.C.: American Psychiatric Press, 1994 (494)

Ignored Factors in the Diagnosis of ADHD

Many researchers recommend that these children should all be placed in an Individualized Treatment Plan (ITP) that addresses not only his or her symptoms of ADHD, but also co-morbid conditions mentioned above. They then suggest that after a treatment plan is in place several intervention modalities should be addressed: 1) Psychosocial, 2) Behavioral, 3) Educational, 4) Pharmacological, if needed.

It would seem the problem with following the DSM IV guidelines is one of neglect and not an actual problem within the guidelines themselves. It has been my experience that primary care physicians don't follow the diagnostic criteria, or the recommended diagnosis schedule. Instead they move quickly to the fastest and most immediate fix, drug therapy.

Often children are placed on drugs like Ritalin, Adderall, Risperdal, or Catapress without a thorough psychiatric follow-up. Factors, which should be taken into account, are ignored. Several other conditions might make up the core of these children's behavioral problems, and they are skimmed over or ignored after the initial diagnosis. Environmental factors, family dysfunction, learning disabilities, hearing and or vision problems along with a number of other physiological conditions may be part of the disorder being diagnosed as ADHD. According to Dr. Peter Breggin, several psychological problems can produce ADHD-like symptoms, including: autistic disorder, major depressive disorder, generalized anxiety disorder, post traumatic stress disorder, avoidant personality disorder, separation anxiety disorder, and social phobias (Talking Back to Ritalin, 211).

> Up to nineteen percent of school age children have behavioral problems, with half of that group displaying ADHD symptoms. The family physician is usually asked to evaluate the child when he or she is doing poorly in school, has disruptive relationships with peers or parents, and displays defiance when parents discipline them" (Smucker and Hedayat, 817).

Often these problems are first noted or expressed in the classroom and it is there that the diagnostic process begins. Educators urge parents to seek help for their child, and naturally a parent's first contact is the family pediatrician. At this level drug therapy may be started, prior to the actual testing needed to adequately diagnose ADHD. This practice while expedient can be damaging to the child and directly violates the recommendations of many psychiatric care professionals and the DSM IV guidelines. Once the diagnosis is made and a treatment is agreed upon parents, educators and children themselves are then left with a myriad of new issues to discuss, consider, and ultimately make choices about for the child. Coping with the diagnosis and coming to terms with medications and treatment are the focus of the next chapter.

CHAPTER IV

BEYOND DIAGNOSIS

Understanding the Terminology

In studying the widespread use of stimulants to treat ADHD, substantial controversy has been generated. The media is very involved on both sides of the debate, and one area of interest is the long-term safety and efficacy of the use of these drugs. For example, The National Institute of Mental Health sponsored a study on this subject and found that chronic use of these stimulants may increase the risk for substance use and abuse later in life.

Although at least one study found the opposite to be true (Biederman, et al, 1999, 63). Ultimately the issue of the use of stimulants had significant long-term effects, either positive or negative, is as of yet undetermined.

Another controversial issue pertaining to the use of stimulants (and the other classes of drugs discussed here) is the growing frequency with which these are prescribed for behavioral problems in children and adolescents. One study documented the increased use of psychotropic medications in children, especially those younger than six years of age (Zito et al, 2000, 1027). The study reported a 1.7-3.1 fold increase in the use of medication (most of ten Ritalin) for the treatment of behavioral problems in preschool children.

All of this medication leads to several confusing questions. A basic understanding of these drugs must be taught to the parents and teachers involved in the care of a child diagnosed with ADHD. Psychopharmacology is the study of the psychological and behavioral effects of drugs. Teachers and parents who are knowledgeable about the principles of psychopharmacology will be able to better understand the manner in which medications alleviate behavior problems in children with ADHD. Four basic concepts to consider are: 1) clinical effects vs. side effects, 2) dose response, 3) half life, and 4) peak effect, (Kollins et al. 4).

The clinical effect refers to the reduction of symptoms noted. Behavioral and emotional problems that are causing difficulty in the child's life will be alleviated

through manipulation of neurotransmitters in the brain such as dopamine and norepinephrine, (Wilens 1999, 107). These neurotransmitters, however, also are associated with elevated arousal elsewhere in the central nervous system. Consequently, in addition to the expected clinical effects of improved concentration and attention, these drugs may increase blood pressure, heart rate, increase respiration, decrease or increase appetite, and disrupt sleep patterns in some children. It is an important part of the management of any behavioral or psychological problem through the use of stimulants to balance the clinical effects of the medication with the potential side effects. One way to monitor this process is through the careful check and recording of vital signs and physiological reactions. Yet, I think it would be safe to say that many of these children do not receive any such monitoring at school and may not receive any of it at home. Without monitoring side effects could mushroom into greater problems that might have been avoided with proper care and monitoring.

Dose response simply refers to what dose is given to achieve a desired behavior or emotional response in the child.

Guidelines are as follows:

1) Behavioral improvement is related to step by step increase in dose.
2) Behavioral improvement is subject to a threshold effect at a moderate or high does
3) Behavioral improvement reaches a peak at a moderate dose and shows a decrease at higher doses; or
4) Behavioral improvement is inconsistent across doses,

(Rapport et al. 1986, 339).

Parents, physicians, and educators must also take note that "the manner in which dose influence(s) various areas of functioning (academic, social, emotional) varies considerably, both across children and even within the same child" (Douglas et al., 1995,397; Sprague and Sleator 1977, 1275; Tannock et al, 1989, 651).

Half-life is related to the effect of the drug on the body over time. Because, as stated above, the effects of a drug are related to the amount of the drug in the body, it

follows that the faster the drug is broken down and eliminated from the body, the shorter is the amount of time the drug will exert its effects.

The final basic principle of psychopharmacology that is important for parents and educators to understand is that drugs (especially stimulants) often exert their optimal clinical effects at a certain point after administration. This point is called the peak effect, and varies with each drug. This means that although beneficial effects may be observed sooner, the maximum effect of the drug is not likely to occur until well after the dosage is taken and that the effect after that optimal time will begin to diminish, (Birmaher et al, 1989, 769 and Pelham et al, 1987, 493)

Once parents and educators of children with ADHD establish understanding of psychopharmacology and knowledge of the kinds of drugs typically used to treat ADHD, they should be made aware of well-established procedures for effectively evaluating the efficacy of those medications.

It is my understanding that a majority of parents and educators are not adequately informed about the way in which stimulants function in the body, and the importance of consistent monitoring of the child's physiological response and the possible adjustment, rather than increase, of dosages. This knowledge is vital and necessary as the behavioral, emotional, and physical health of these children may depend on such diligent care. Questions, which should be asked and more importantly are not, are: Are all parties of responsibility (doctor, parent, and educator) evaluating the need of and administering these drugs properly? Are educators specifically aware of the changes in behavior a child will experience when the half-life or peak effect of any stimulant is reached? Is enough being done to ensure that these children's vital signs and overall health are kept within normal limits while they function in and outside the classroom?

If the death of Michigan native Matthew Smith, on March 21st 2000 is any indication, then not all children are being monitored effectively for the effects the drugs might have on them in general and how it might interact with any preexisting conditions. According to a CNN edition of the World Today, which aired on April 17, 2000 - 8:29 p.m. EST, Dr. L. J. Dragovic, medical examiner, Oakland CO., Michigan, the physician who autopsied the fourteen-year-old boy attributed his death to the constriction of blood

vessels that supply the heart caused by the chronic use of Ritalin. There are those who say Smith's death could not have been caused by Ritalin and he therefore must have had some preexisting heart condition, but no such condition was ever diagnosed before his death and the autopsy showed no signs of damage that was not attributed to chronic stimulant use. This sort of monitoring was not in place for Smith. Many physicians say that such monitoring is not necessary; however, according the Canadian Paediatric Society,

> The physician must be available to the parents to monitor the drug effects and to regulate the dosage. The decision to provide "drug holidays" on weekends or during the summer must be decided on an individual basis depending on the child's need for improved attention control and behaviour at these times. Since side effects are rare, there is no logical reason to deprive children and parents of the benefits to self-esteem and family dynamics obtained through daily administration if required. Effective drug therapy should be continued so long as there is clear benefit; a trial without medication, preferably blind to familiar observers, should be performed at least annually. Serial measurements of height, weight and blood pressure are mandatory (818).

In short, monitoring is necessary; panic is not. It is this balanced perspective on the harm of Ritalin and Ritalin-type drugs which is missing from the North American discourse on drug therapy and children. Although once one assesses the possible side effects of these stimulants it is easy to see how panic becomes an option, and for some the only option in such discourse.

Physiological Effects of Medication Used to Treat ADHD

Dr. Peter R. Breggin is an outspoken critic of the use of amphetamines to treat children. He notes that, "Ritalin and amphetamines such as Adderall have almost identical adverse effects on the brain, mind and behavior, including the production of drug-induced behavior disorders, psychosis, mania, drug abuse, and addiction" (2001, 335). He also writes that the drugs often cause the same conditions they are prescribed to treat like hyperactivity and impulsivity. The drug might also have the reverse effect and

cause a child to become lethargic, withdrawn, depressed, or robotic. Furthermore the use of Ritalin has been linked to the development of permanent neurological disorders like Tourette's syndrome. They have also been linked to the retardation of growth, growth cycles regulated by the pituitary.

Dr. Breggin writes,

> Ritalin and amphetamines like Adderall routinely cause gross malfunctions in the brain of the child. There is evidence from controlled scientific studies that Ritalin can cause shrinkage (atrophy) or other permanent physical abnormalities in the brain. Amphetamines, including Adderall and Dexedrine, cause cell death in animals in relatively low doses (2001, 335).

While these facts may be shocking there are families in need of help, and some of them may feel they can only get that help from medication. If the offered stimulants are not an option, or the option comes at too high a cost for the family, where they can turn is of primary importance.

ADHD and Alternative Therapies

When drugs are not the answer several other options still exist. EEG Biofeedback therapy, diet modification, herbal supplements, acupuncture, and straightforward behavior modification therapy are all choices available to varying degrees depending on which area of the country one lives in. According to EEG Spectrum International, "Human EEG biofeedback was first attempted in the 1960s by Joe Kamiya at the University of Chicago. Early investigations focused on operant conditioning of alpha brain waves primarily to facilitate deep relaxation and meditation" (EEG Spectrum International http://www.eegspectrum.com/HealthProfFAQ/Faq). This form of treatment does however require the use of electrodes and may therefore be undesirable to some parents. Acupuncture falls under the same sort of prohibition as many children express a fear of needles, which might unduly agitate them. As herbal supplements are not regulated by the FDA, this solution may be considered undesirable as well. Dietary changes on the other hand are a cost-effective, somewhat safe way to attempt to control ADHD. According to Dr. Breggin, there is growing evidence in controlled, double blind

studies that the removal of food products that produce allergies like peanuts, as well as products including: monosodium glutamate, caffeine, preservatives, dyes, and other additives from the diet has produced a reduction in ADHD symptoms (2001, 211).

This sort of therapy may not be enough on its own, but this therapy in concert with traditional behavior modification therapy by a qualified professional, in addition to the cooperation of educators and school counselors may be, for many families, a path to negotiating their children through school without the addition of drugs.

Dr. Breggin cautions that these alternative therapies reinforce the idea that the problem is a physical or mental one, and may mask a real physical condition, which is producing ADHD-like symptoms. He recommends instead the incorporation of treatments, which enhance self-discipline and autonomy for the child and strengthen the family structure (2001, 214). It is this family structure, which is the focus of the following chapter.

CHAPTER V

ADHD AND THE FAMILY

Divorce and ADHD.

Dr. Martin Stein MD, Professor of Pediatrics at the University of California, San Diego School of Medicine, sites two high-prevalence conditions that have significant effects on the development of children: divorce and ADHD. The United States has the highest divorce rate of any developed country, with half of all marriages ending in divorce. That statistic translates to approximately one million children annually who are the emotional victims of divorce. With the combination of single-parent homes and divorce, approximately 60% of all American children at some time live in single-parent families (2001, 867).

It is my belief that an environment created by a high-conflict divorced family with arguments, screaming, physical threats, physical violence, monetary pressure, court dates, and/or general parental instability could lead to the symptoms of ADHD in the children of these families. Another diagnosis such as acute stress reaction or adjustment disorder may more appropriately define the nature of the symptoms displayed. Such symptoms could theoretically continue for years if the family chaos is not contained and equilibrium is not established. Without stabilization a repetitive set of behaviors might easily become the norm for a child, and the cause could be simple dysfunction rather than ADHD.

Often in conjunction with the chaos and family dynamics between the divorcing parents come disagreements related to the actual diagnosis and necessary treatment for the child. This would place the child in an uncomfortable situation where the child learns to act differently with each parent. This sort of behavior would lead to completely different reporting to a health care professional from each parent. This sort of activity can only, and often does confuse the issue and the diagnosis and treatment.

Practice guidelines for ADHD stress the need for multiple informants, and these informants must be accurate in their assessment of the child's symptoms. Often times, the divorcing parents will fight each other over these symptoms, blaming the other for the

child's problems. These conflicts only add to the problem, and exaggerate the symptoms displayed.

It is very important that both parents contribute to the overall treatment plan, or in the absence of two parents then some extended family contribute. Decreasing tensions between parents, or decreasing stress for the one parent may decrease the negative behaviors engaged in by the child after a divorce or separation. The need for medication and intervention may be eliminated.

Another problem that often occurs after divorce is what some have called Dad Attention Deficit Disorder (DADD). This condition refers to the separation of children from the emotional and physical presence of their father who often no longer lives with them (Breggin and Breggin 1995, 59).

According to others the cure for these children is more rational and loving attention from their parents. It is theorized that young people today, especially young men (those most often diagnosed) are hungry for the attention of a male figure. It is further theorized that impulsive and hostile behaviors might calm down when a caring, relaxed, and firm adult male is a presence in the life of the child (Smith 1993, 5).

It is almost inevitable in American society that even if both parents are in the home, they both most often also work outside the home. This pattern limits the amount of time a parent has to spend with a child and if this alone does not create a behavior disorder, it contributes to the need for expedient treatment, and that treatment is most often one that involves medication(s).

Paul Johnston: The Escalation of Medication

The long-term effects of Ritalin and Ritalin-type stimulants are not yet known as the first generation of "Ritalin-children" are just now entering adulthood. What we do know is that these drugs produce some significant side effects that can cause more harm than good to the emotional, physical, and behavioral health of a child. One child, whose experience with Ritalin was damaging, is Paul Johnston (See Appendix A), a thirteen-year-old boy from West Virginia. His story was featured in the July 23, 2001 edition of *People* magazine and Johnston's is a true horror story.

When Johnston entered kindergarten his doctors diagnosed him with ADHD and prescribed Ritalin at the age of 5. This drug failed to quiet his ADHD. His mother notes, "He was moody. He would not sleep. He would not eat" (Rogers, July 2001, 55). His behavior then began to deteriorate at home and he was disruptive and destructive. This behavior continued and the Johnston's took him to at least 14 separate doctors. Other stimulants, antidepressants and anti-psychotics were then prescribed in varying degrees. They also seemed to fail.

Johnston began hearing voices in 1997 and was placed on Risperdal to control this psychotic manifestation in his behavior. Risperdal is known to cause permanent damage to the body including recurrent tics and other problems. This did not help either. On September 19, 1997 Paul Johnston took a knife to his own chest and cut gashes in it. Episodes like this forced Paul into treatment at psychiatric facilities on four occasions before he was finally committed for an extended stay in 2000.

Paul Johnston's regime of medication escalated from one dose of one drug to more than five prescriptions at once for what was originally diagnosed as ADHD. Johnston was eventually weaned from all the medications in his system and his parents were encouraged to provide better discipline in the home to combat his behavior. This treatment plan, while imperfect, is still preferable to his parents then slashing his chest (July 2001, 50-55).

Two points illustrated by Johnston's story are open to further consideration. The article notes that Paul's behavior once made him an outcast in his community. ADHD's association to the concept of self is incredibly important to the overall picture of this disorder. The other consideration is one of educational pressures on children and parents to medicate for ADHD. The latter of these will be covered in a later chapter.

ADHD and the Self

How does ADHD affect a child's self-image? This is a question not often asked. Paul Johnston was considered a social pariah in his neighborhood not only because of his bad behavior, but also because of the associated ideas related to the vast list of medications he received. How does medicalization behavior affect the child in the outside world? Some would say it is damaging. Does Ritalin undermine a child's ability to control its own behavior? Some say yes. Stoufe and Stewart wrote as early as 1973,

> The child can conclude that he is not responsible for his behavior: "I can't help being bad today. I haven't had my pill." The child comes to believe not in the soundness of his own brain and body, not in his growing ability to learn and to control his behavior, but in "my magic pills that make me into a good boy and make everybody like me (Stoufe and Stewart 1973 as cited in Breggin 2001, 412)

Dr. Breggin's current observations offer no better interpretation of a child's reaction to being medicated. In Talking Back to Ritalin he writes,

> As in the Walter Reed study, being diagnosed and medicated seemed to undermine many children's sense of being in charge of themselves, their actions, or their lives. One child said, "I think it is a kind of sickness, because it, it kind of takes over, I know it takes over my body…it's like you don't have that much control…I kind of feel weird, because you need a pill to control yourself, (2001, 234).

In the interview the informant mentioned feeling distinct discomfort with taking Ritalin while in school, and expressed particular distress at being one of three boys who were forced to sit near the door of their classroom so that they might not disrupt the others when they went to get their pills. This child was publicly isolated, segregated, and made to feel defective and inferior in an attempt to control a behavior disorder, which not all medical professionals can even agree exists (Anonymous, Personal Interview March 1, 2002).

The informant indicated more than once a dislike for the medication, and indicated that several other medicated children in the child's school felt the same way (Anonymous Personal Interview March 1, 2002). This sort of inference is confirmed by the high rate of noncompliance-failure or refusal to take the medication. Non-compliance varies from ten to thirty percent in closely monitored research projects in clinical practices. These statistics are over a decade old and are probably higher today with the increase in use of stimulants to treat ADHD in the United States. The feelings of children in reaction to Ritalin were studied in a project funded by the Institute of Child Behavior and Development at the University of Illinois. The results were seldom cited in ADHD/Ritalin reviews until they appeared in Dr. Breggin's book Talking Back to Ritalin. Among the children diagnosed with ADHD, many hated the drug, and how it made them feel, but lied to their doctors about it. The researchers found inconsistencies in interviews, by observing behavior outside the sessions, and by questioning adults about the children's willingness to take the drug. The study concluded that a pervasive dislike existed among hyperactive children for taking stimulants. Forty-two percent disliked or hated taking the drug. Sixteen of the children in the study reported embarrassment about being on Ritalin. The researchers concluded that the children's statements only reflected what they thought their parents or their doctors wanted to hear. The study ultimately found the physicians at fault because as trained medical professionals they should have been able to detect a dishonest response from their patients. The study also raised the possibility that a great many patients who were thought to be improving, were not even taking their medication (Breggin 2001, 271-273).

Jensen found that taking Ritalin produced the following negative psychological, moral, and social effects:

1) "Defective super-ego formation" manifested by "disowning responsibility for their provocative behavior"

2) "Impaired self-esteem development"

3) "Lack of resolution to critical family events which proceed the emergence of the child's hyperactivity"

5) Displacement of "family difficulties" onto the child (2001, 135).

These children believe they are bad and they believe the medication is given to control that badness. Kate Clarke, a social worker in the Illinois public school system, researching for her unpublished doctoral dissertation, studied the feelings children have related to being diagnosed with ADHD and being treated with Ritalin.

Medically the children reported adverse drug effects consistent with most studies, impact on the child's sense of self was of larger concern. Many children expressed the idea that they thought people believed they were stupid, weird, or sick. Teasing and ridicule are common in the life of a child on Ritalin. Often these children will hide the fact that they are on medication (Clark as quoted in Diller 1996, 17).

Educator Michael Valentine emphasizes that our belief system about a child will affect our expectations and communication with a child. He believes than the ADHD diagnosis limits our expectations and encourages children to give up self-control (23).

How does the child reconcile this forced image of an illness, handicap, or disorder? Few are asking them, and few are helping them. One wonders how a child copes with the idea that their brain, where they are often told the "stuff" is that makes them who they are, is beyond their immediate control and must be controlled by some external force. This action seems, in my opinion, counterproductive to the entire concept of modifying behavior, and may do more harm than any good the medication may do.

CHAPTER VI

ADHD AND SOCIETY

The Pressure of Educators

On September 29, 2000, Dr. Breggin testified before the U. S. House of Representative's sub-committee on Oversight and Investigation Committee on Education and the Workforce. Dr. Breggin's argument began with the assertion that parents throughout the country were being pressured and coerced by schools to give psychiatric drugs to their children. Teachers were described as threatening and demanding. They expressed the belief that these children were not teachable unless they were medicated. They further suggested that only medication could stave off a bleak future of delinquency and occupational failure. Child protective agencies were at times called in, and parents were charged with neglect if they refused to medicate their child (Breggin 2001, 298).

He further asserted that particular physicians were being used because they were known to favor stimulant therapy for the over-active child. Paul Johnston's family also felt pressure from their school system to medicate their child (July 2001, 55), and my own informant's parents felt equally pressured by the school system and the family court system to medicate their child (Anonymous Personal Interview, March 1 2002).

This sort of pressure has to stop. Educators, while valuable members of a community, are not medical professionals and while their extended contact with a child may allow them insights others often miss, this in no way should give them the right to dictate to parents the appropriate course of action concerning a child's mental health. Rather their services would be better used filling out the questionnaires provided to diagnosis ADHD so that more definitive diagnosis might be made.

The Pressure of Advertisements

What is behind the drastic increase of psycho-pharmaceutical drug usage in the United States? Why is the general public not informed about the full scope of Ritalin? Why have no long-term studies been done concerning the aftereffects of years of Ritalin and Ritalin type drugs?

The answers lie in the politics of the American Psychiatric Association and their "partnership" with pharmaceutical companies. In the 1970's the APA was all but broke. Competition from non-medical professionals was cutting into the income of private practices. Psychologists, social workers, counselors, and family therapists were taking over the field. With smaller fees and better access to help, patients were seeking help from these professionals in record numbers.

At this point psychiatry had to convince the American public that psychological illness should remain under the control of psychiatrists. One way to do this was to generate the idea that these illnesses are genetically and biologically determined; therefore medical intervention is required.

A major step taken was the revision of the Diagnostic and Statistical Manuel of Mental Disorders. In these revisions, disorders became "medical" illness thus ADHD as an illness was born. By elaborating on ADHD as "disorder" stimulant intervention became more and more justifiable.

The problem with this plan came from the actual cost of revising the manual. The association was in deep debt and such a move would have been impossible without an influx of outside money.

Pharmaceutical companies from around the world were ready with that money. In the early 1980's the APA formed partnerships with these companies and forever changed society, as we knew it. The political and economic partnership would enable the APA to receive funds from drug companies to promote the medical models they needed to financially survive. Backed by a multi-billion dollar industry, psychiatry would not only survive, it would flourish and grow into a financial giant in its own right. The APA soon had lobbying groups in state capitals and in Washington D.C., growing stronger as an influence on the media as well as the courts.

This plan to save the APA was never a deal done under the table. It was openly discussed, carried out, and reviewed in Dr. Breggin's Toxic Psychiatry**.** Ethical issues were immediately raised within the APA related to this financial dependency on drug companies; however, arguments soon were quieted when money began to flow. The APA soon bragged in its newsletters about revenues being made through this partnership.

Drug companies were now funding research projects and paying for fellowships at the APA. Local and national conventions were totally funded by drug companies (1991, 339).

Drug companies now fund the largest percentage of research. Research centers across America were and are dependent on these companies. Lack of cooperation prevents important, even vital research from taking place or being shared.

Needless to say Ritalin research is directly compromised by these partnerships. To date there are no long-term studies on the effects of Ritalin on induced atrophy of brain tissue, or on the irreversible damage of long-term stimulant use (Breggin 2001, 349-356). Can any logical parent doubt the conflict of interest in a financial partnership between drug companies and the APA? Dr. Lester Shapiro used the term collusion to describe his findings on the subject. Dr. Shapiro states, "The APA colludes with drug companies whose interest lie in broadening the marketing, encouraging long-term use, minimizing the dangers of drugs, and belittling alternatives to drugs" (1991, 241).

The Psycho-pharmaceutical Complex is a very close association; a partnership to some and collusion according to others. This complex brings together drug companies, researchers, doctors, government agencies, and various medical organizations including the APA, medical schools, and insurance providers. All these groups benefit from the ever-growing use of psychiatric drugs in the United States.

Dr. Breggin cites six major players in the Psycho-pharmaceutical Complex:

1) The American Psychiatric Association (APA)
2) Ciba Geneva Pharmaceuticals; a division of Novartis (the makers of Ritalin)
3) CHADD (Children and adults with Attention Deficit Disorder) an influential organization that receives money from Novartis
4) The U. S. Department of Education (DOE)
5) The National Institutes of Mental Health
6) The Food and Drug Administration (FDA)

(Breggin 2001, 293).

Drugs to treat ADHD have become a significant subject in the minds of parents all over the world. From trycyclic antidepressants to stimulants and anti-hypertensives, the use of drug therapy on children with questionable behavior has become, to say the very least, big business.

In the early days of this treatment, pharmaceutical companies, without legal pressure, agreed not to advertise narcotics that would assist in calming American children. However, very recent advertisements in popular magazines have begun this practice. In September 2001, a variety of woman's and parenting magazines saw the first advertisements promoting narcotic therapy for children with ADHD. (See Appendix: B, C, and D).

While the anti-hypertensives and antidepressants are not considered schedule II, controlled substances, or narcotics, the amphetamines, (Ritalin, Concerta and Adderall) are. Advertising these drugs has never been illegal; however, the drug companies, in good faith never found it necessary to do so. Those days are over due to the huge surge in the use of these drugs for ADHD, and other behavioral disorders in children and adults.

The facts presented in the September 10, 2001 edition of *Time* magazine are alarming. According to *Time*, in the past five years alone, sales of prescriptions to treat ADHD have gone up some thirty-eight percent, In light of what appears to be an epidemic of ADHD in the United States alone, some 3 million U.S. children are believed to have this or a related behavior disorder. Furthermore, pharmaceutical companies are listing, at present, a one billion dollar a year profit from ADHD drugs, and in 1999 a staggering 20 million prescriptions were written (Novak, 62). With the numbers on the rise, drug companies are fast at work developing second-generation drugs that last these kids throughout a school day. These drugs are supposed to lower or remove the stigma they carry waiting in line at the nurse's office for their mid-day doses of Ritalin and similar drugs, and some second-generation drugs already exist and are available for prescription (See Appendix D).

Companies that advertise these drugs believe that they are doing the consumer a great service. They state knowledge and options assist in treatment; however, many

physicians see such advertisements as a double-edged sword, because they drive up the demand for the drugs. This can be very controversial because these drugs are categorized by the DEA in the same class as other narcotics like morphine, cocaine, and Demerol.

As alarming as all this sounds, the government's hands are tied. At the United Nations convention of 1971, signatory nations agreed to prohibit the advertisement of psychotropic substances to the public. The United States never passed such a law (Novak, 62). At this point the nation can only rely on the good judgment of each company to market with discretion. At present Celltech's advertisement for Metadate CD is the only one that names the drug, instead of relying on an 800 number for further information (see Appendix D). Some advocate groups for persons with ADHD support these companies, arguing that these advertisements promote public awareness of the disorder. Others contend that all it does is promote sales.

CHAPTER VII

CONCEPTS OF DISEASE

Summary and Conclusion

ADHD began with the medication and not the illness. The discovery of the disease was mere happenstance and subordinate to the discovery that amphetamines could reduce behaviors that were not considered symptomatic to any defined disease. This state of affairs was not to remain and the development of new drugs to treat the "disease" ADHD grew exponentially. The categories of drugs now used to treat the disease includes not only amphetamines but other classes of drugs which were also not specifically developed to fight the disease, but rather were discovered to have some effect upon patients. Determining which individuals should be considered patients is also problematic to ADHD. The DSM IV guidelines are clear in their definition of ADHD, but it must be considered that the characteristics, symptoms, and treatment for this "disease" are voted on by committee, and while the votes are backed up by researcher, no standards for such research are available for evaluation by concerned parties. Furthermore the DSMIV guidelines are often not utilized at all and when used are only used partially, or incorrectly. Even when utilized the results are often to adequately explained to parents or patients, and comorbid conditions are often ignored all together. The presence of other mental conditions, family problems, and physical conditions can all contribute to the misdiagnosis of ADHD. If these factors are ignored children are at the risk of being unnecessarily medicated with amphetamines.

Even when Amphetamines are properly prescribed, problems occur in the administering of the drugs. Parents and educators are unfamiliar with the additional medical conditions and terminology associated with the administrations of medications in general, and are specifically not prepared for the changing conditions the drug undergoes in the body, the physiological effects on the patient, or the necessity of monitoring.

For parents who resist drug therapy, there are alternative therapies available, but other than some success with food allergies and diet modification to exclude preservatives dyes and other additives, there are few proven therapies available.

Drug therapies alone are also not always the most complete answers. Family contact, the effects of divorce, and other socially motivated problems in addition to ADHD are often ignored and any complete "cure" should include family and individual therapy in extreme or drug resistant cases. Also behavior modification and family therapy may be the answer for parents who are resistant to drug therapy. Families may also wish to consider the addition of therapy to help children cope with the very concept of needing medication. Research indicates that children may have trouble adjusting to society's treatment of medicated or "ill" people, and little or no research is being done on ADHD's affects on a child's self-image and self-esteem. Often parents do not fully consider any of these factors in whole, and instead opt for the "quick fix" of medication. They are sometimes under direct pressure from educators, healthcare providers, and the media to seek medication for a problem, which may only be situational, rather than an inherent disorder within the child's brain. That is not to say that the administering of amphetamines to some patients is not a proven and beneficial therapy, but rather that it is prescribed too often and not seen as the last resort it should be. Parents and educators need to be made absolutely aware that Ritalin and Ritalin-type drugs are amphetamines, which can be abused, badly administered, and in some patients have disastrous effects.

Ultimately a social climate exists which promotes the administering of amphetamines to children without a proper diagnosis and often with no other monitoring. Parents and educators who are unwilling to deal with a child's behavior may find it even harder to deal with medicated children and associated medical conditions. More drugs are not the best answer or the only answer for many patients, and the promotion of the "quick fix" must come to an end. Any mental condition needs corrective measures beyond drugs, and in no case should drugs be considered the remedy to a child's fight with ADHD.

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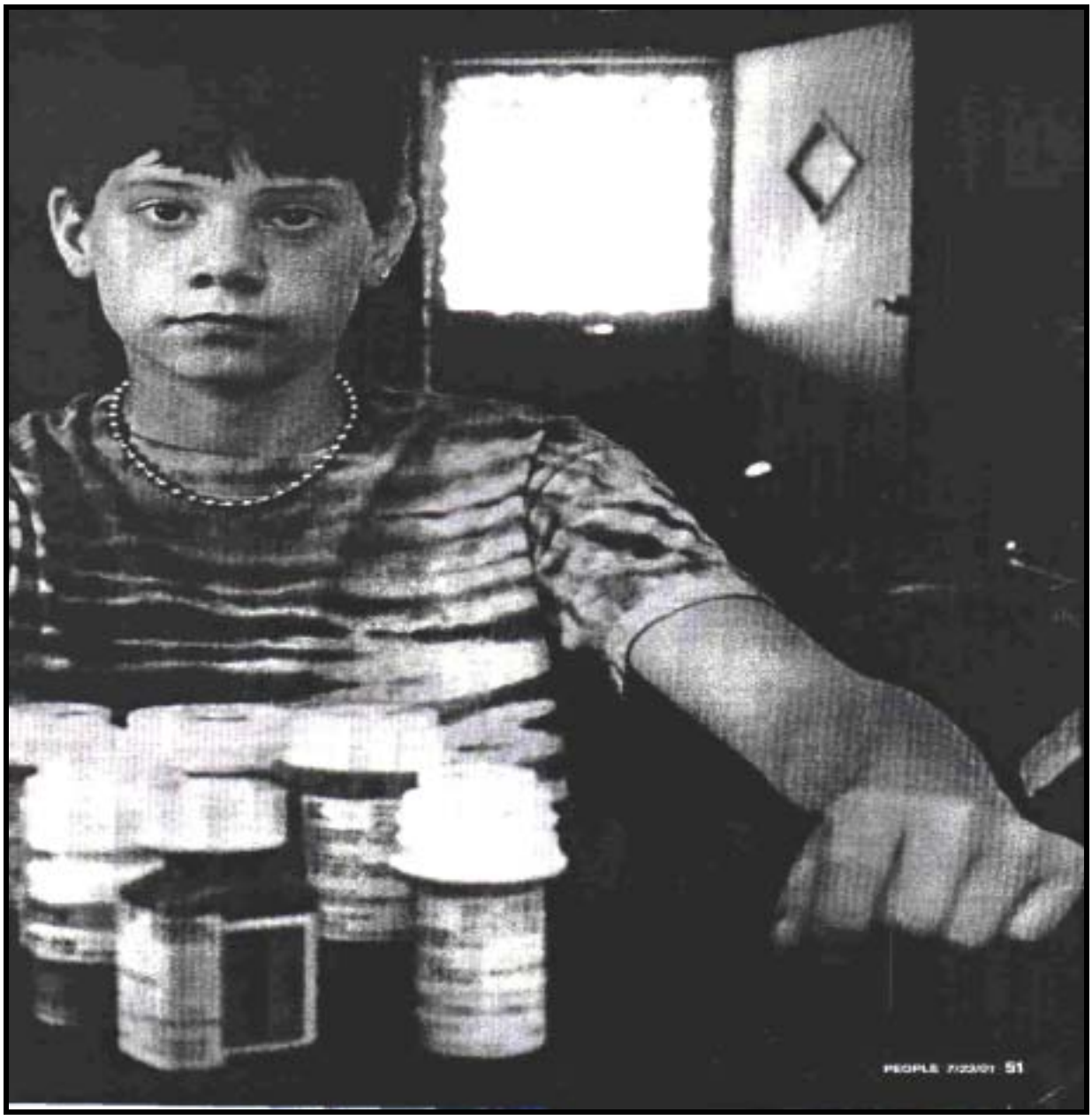
APPENDICES

APPENDIX A:



Johnson pictured here with the medications he was taking, at one time 10 pills per day.

Figure 1 (Photo Credit: April Saul, *People Magazine*, July 23, 2001)

APPENDIX B:

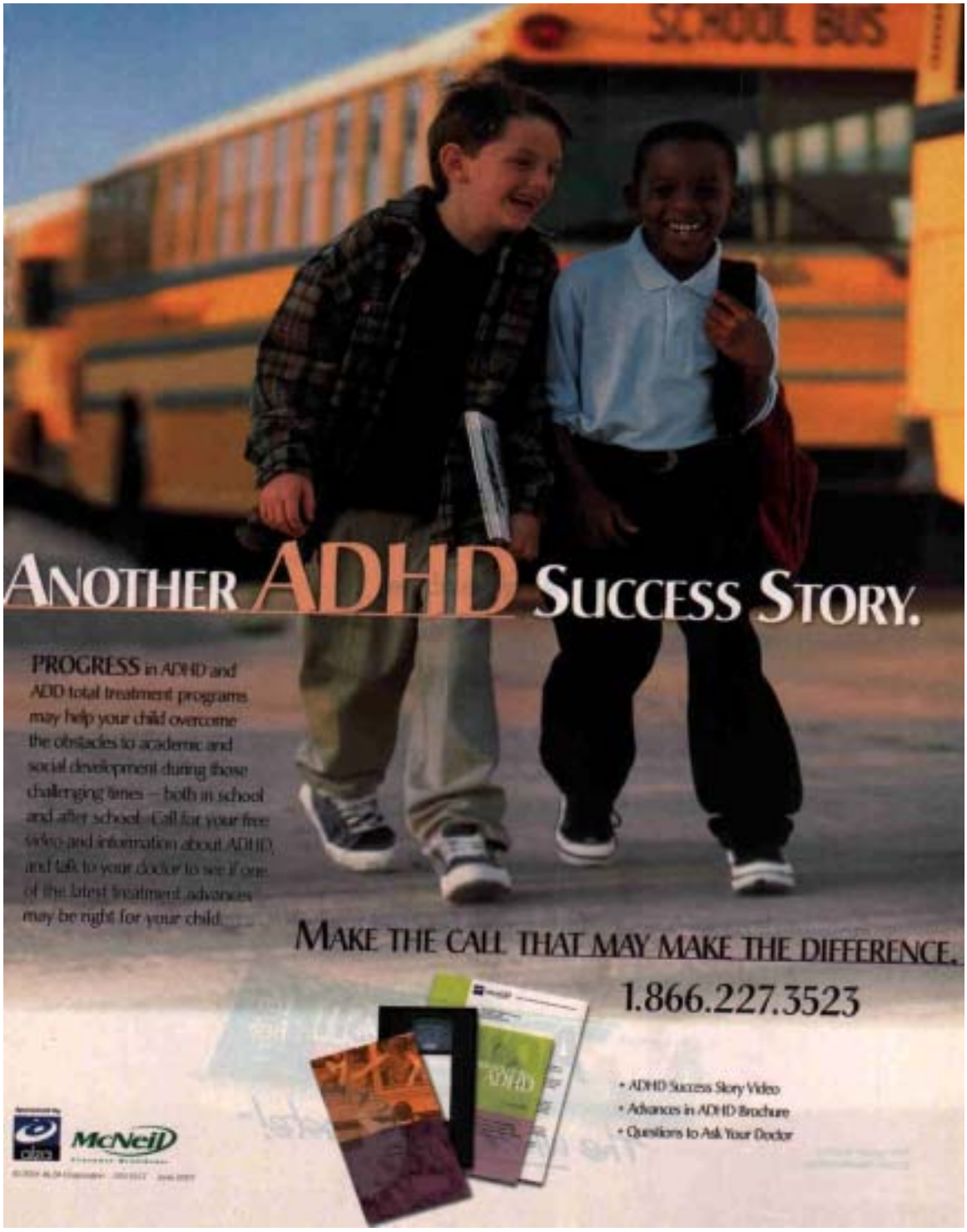


Figure 2 ***(McNeil Advertisement, Ladies Home Journal***. Jan, 2002, 34)

APPENDIX C:

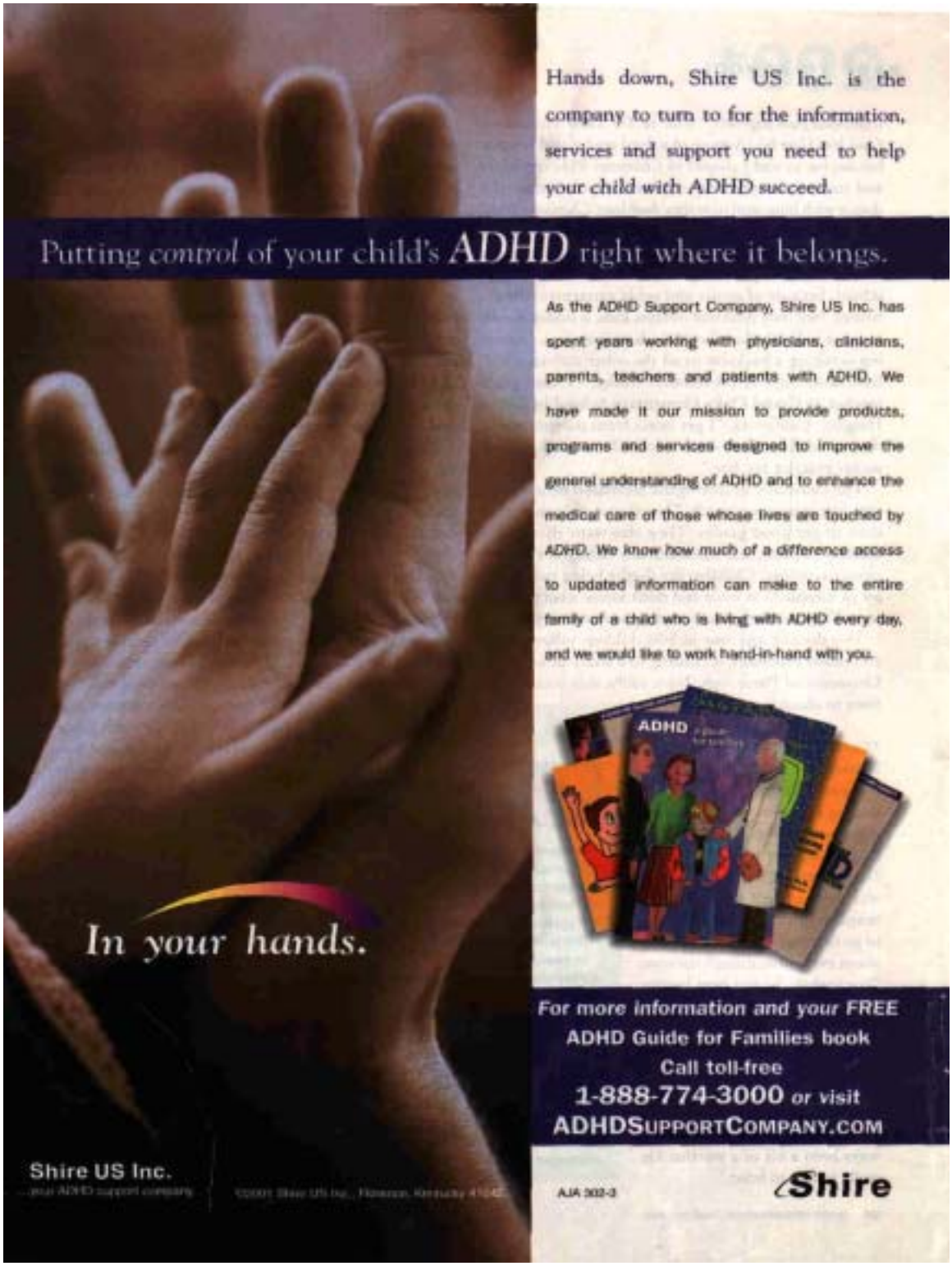


Figure 3 (Shire US Inc. Advertisement *Ladies Home Journal* Jan 2002 17)

APPENDIX D:

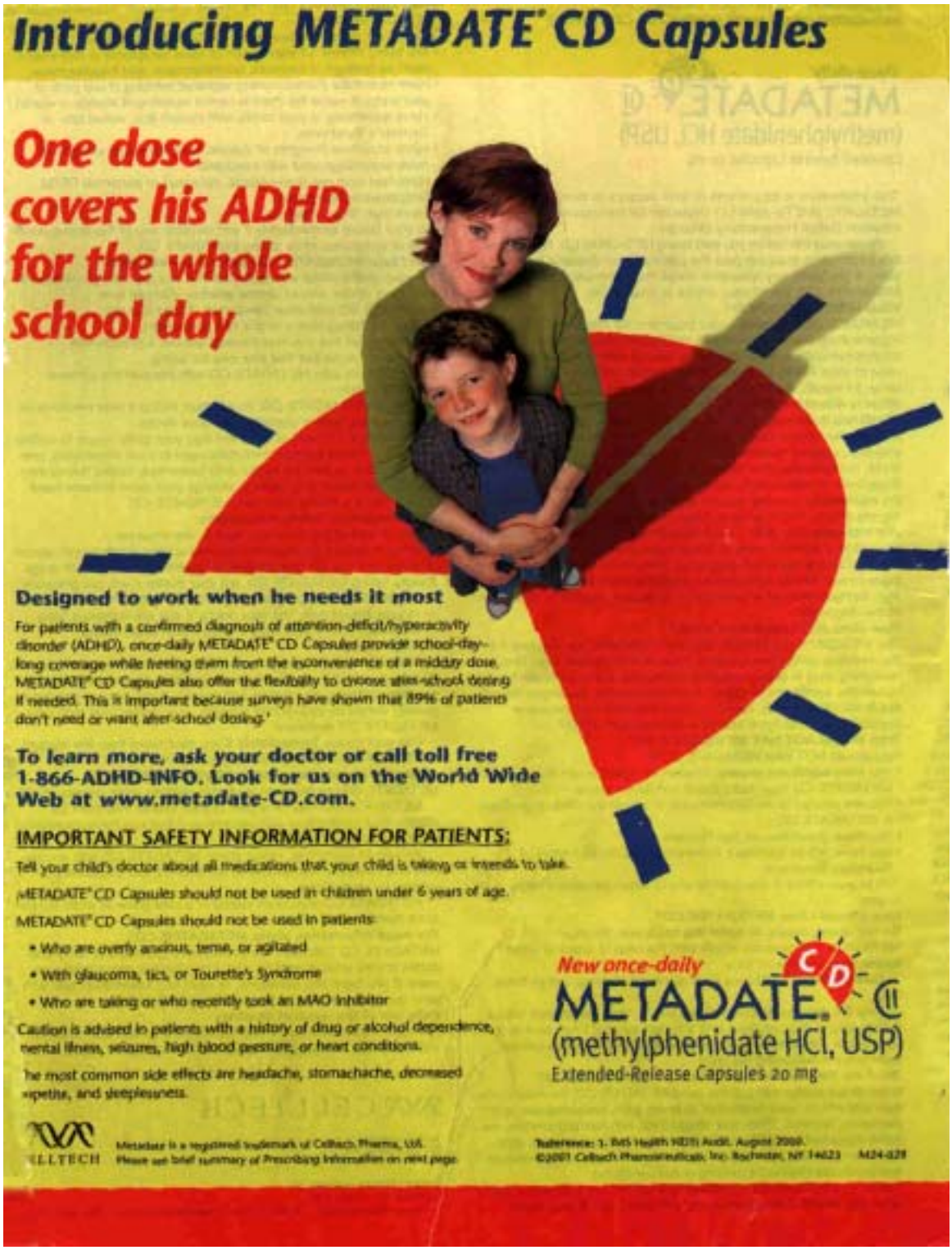


Figure 4 (Celltech Advertisement. *Ladies Home Journal* Jan 2002 117)

CURRICULUM VITAE

With a lifelong interest in helping children, I entered Marshall University in 1977 in pursuit of a degree in education. As my interests changed and my fascination with medicine grew, I abandoned my plans for that degree and in 1984 enrolled in the St. Mary's School of Nursing where I received a diploma in 1987. Since that time I have worked all over the country in various hospitals and health organizations as a registered nurse, either in surgical units, or as part of direct patient care. In 1995 I returned to Marshall University and received an RBA. The last 2 and one half years I have been working as an adolescent/child psychiatric nurse while pursuing my MA in sociology from the same institution. It is this work in adolescent/child care which led to my thesis work on the use of Ritalin and other narcotics to combat behavioral disorders in children, specifically ADHD.