

Abstract

The following paper focuses on issues of ADHD and the media through analysis of the motion pictures *Thumbsucker* (Mills, 2005) and *Pushing Tin* (Newell, 1999). Topics addressed include the controversy about diagnostic methods, criticism of stimulant prescriptions for children, increasing attention surrounding adult ADHD, and the relationship between media and ADHD.

ATTENTION-DEFICIT / HYPERACTIVITY DISORDER AND THE MEDIA

“Many of the myths about ADHD are perpetuated in the media”

(Rutherford, 2004b).

Disorders of attention have been addressed and defined since the early 20th century (Rutherford, 2004a). From a defect of moral control to Attention-Deficit Disorder (ADHD) categorized by the American Psychiatric Association in the Diagnostic and Statistical Manual of Mental Disorders (DSM), the classification of attention disorders have changed considerably throughout this time (Rutherford, 2004a). Some of the changes have been due to concern over the diagnosis being too easily applied, and the DSM-III and DSM-IV changes specifically addressed these concerns (House, 2002). However, the World Health Organization’s International Classification of Diseases (ICD) remains more restrictive, and as a result the United States’ use of the DSM-IV has led to higher rates of ADHD diagnosis than other Western countries (House, 2002; Timini, 2005).

With this high rate of diagnosis comes a rise in public interest and media coverage, not all of which is accurate. Some criticism of the media includes spreading misinformation such as incorrect causes and for confusing ADHD with conduct disorders (Rutherford, 2004b). Rising rates of ADHD diagnosis in both the United States the United Kingdom also are identified as a sign of over-diagnosis (Timini, 2005). Current media criticism of ADHD portray the diagnosis as an easy solution to behavior problems encouraged by parents and schools (Rutherford, 2004b), but these claims are countered by others concerned that many are still undiagnosed (Magill-Lewis, 2005).

In addition to informational media coverage of ADHD, motion picture portrayals of characters living with ADHD can act as a guide to society's opinions as well as a component in the creation of these opinions. "Films are especially important in influencing the public perception of mental illness because many people are relatively uninformed about the problems of people with mental disorders, and the media tend to be especially effective in shaping opinion in those situations in which strong opinions are not already held" (Wedding, 2005; p.1). Representation of disorders and the characters dealing with them in motion pictures highlight common misconceptions as well as societal beliefs about diagnosis, treatment, and mental health professionals (Wedding, 2005).

1.0 *Thumbsucker* and Criticism of ADHD

"So my problems are just because I'm hyper..." Justin Cobb (Mills, 2005).

Thumbsucker focuses on a 17-year-old boy, Justin Cobb, who sucks his thumb in response to stressful situations. His orthodontist hypnotizes him to taste Echinacea when he places his thumb in his mouth, and to Justin's displeasure the hypnotism works. When Justin can no longer suck his thumb to deal with stress he becomes agitated and angry, blaming his orthodontist for his discomfort. This distress culminates with him attacking the orthodontist, leading to Justin's arrest and a meeting with the school counselor who diagnosis him with ADHD. Justin's ADHD is a background issue in the motion picture, which centers on the life experiences composing a boy's coming of age story. As such, his diagnosis of and treatment for ADHD are a subtle look at popular ideas about ADHD.

Following is a fictional patient evaluation for Justin and a discussion of the representation of ADHD in this motion picture.

1.1 Fictional Patient Evaluation for Justin Cobb

Patient's Stated Reason for Coming: The high school counselor suggests that Justin “needs an adjustment” before entering college. Justin’s debate class teacher, Mr. Geary, agrees that Justin exhibits some symptoms of ADHD.

History of Present Illness: Justin’s high school counselor diagnosed him with ADHD this year. He was prescribed medication but has stopped taking it.

Past Psychiatric Illness, Treatment, and Outcome: Prior to diagnosis of ADHD by the school counselor, Justin had not been treated for any psychiatric problems.

Medical History: No known conditions.

Psychosocial History: Justin is a 17-year-old Caucasian male who has poor grades in school, little involvement in school activities, and is not social outside of school. Justin is isolated from his peers and had no previous romantic relationships prior to ADHD diagnosis and treatment. After he ceased ADHD treatment he dated a girl, but she recently ended their relationship by telling Justin she was just experimenting with him. Justin appears to have been attached to her and felt the relationships was more than an experiment.

Justin had no routine social activities prior to ADHD diagnosis. After beginning medication he joined the debate team and became very successful as a member. However, once a teammate told him his that medication was speed he became

disoriented, lost a debate, and quit the team. He ceased taking his medication that evening.

He seems to have no close male friendships. His relationship with his father is tense, and he is not extremely close to his brother. His mother is supportive, but there is tension in their relationship as well because Justin does not believe she will stay with his father and therefore the family.

He resides in Oregon and will be attending college this summer. A university in New York accepted Justin, but his admission statement included a false story about his parents both suffering from mental illnesses. He submitted this application while he was taking the ADHD medication.

Drug and Alcohol History: There was no drug or alcohol history prior to Justin's use of ADHD medication. While taking the medication he drank one time with the debate team. Once he ceased taking the medication he began to seek out marijuana. While substance abuse is frequently co-morbid with ADHD (House, 2002), it is unclear whether Justin was substituting the marijuana for the ADHD medication or using it as a way to be social with the girl he was interested in. Justin does not meet DSM-IV criteria for Substance Abuse or Substance Dependence.

Behavioral Observations: Prior to his diagnosis Justin was somewhat sloppy in his appearance. His clothing was casual, jeans and a t-shirt, and typical of a teenager. His hair was shaggy and hanging in his face. While he was taking the medication he wore a suit with a tie and styled his hair. After he ceased taking the medication his appearance returned to a casual look.

Prior to diagnosis, Justin was shy, quiet and dependent on sucking his thumb when agitated. After being hypnotized, he stopped sucking his thumb. Without this habit Justin felt “crazy.” He fled class when called upon, threw an orange juice container on the kitchen floor, and blamed his discomfort on the orthodontist. His discomfort with life sans thumb sucking led to his attack on the orthodontist and subsequent diagnosis of ADHD. Once taking ADHD medication he became more aggressive, outgoing, and confident. While his old appearance resumed after he ceased taking the medication and quit the debate team, he remains more outspoken.

Mental Status Exam: Justin seems fully oriented to place, person, time, and situation. There is no evidence of thought disorder, psychotic processing, or homicidal or suicidal thoughts. His memory appears intact.

Functional Assessment: It is difficult for Justin to get out of bed in the morning. He stated that putting on underwear in the morning was difficult without the medication but not when he was taking it. He was unprepared for class and tuned inward at home prior to the diagnosis. He had no consistent interactions with peers, and when called upon to interact in class he fumbled or answered inappropriate to the context. After ceasing medication, Justin returned to sucking his thumb. He appears comfortable with himself and is no longer embarrassed by sucking his thumb.

Strengths: Mr. Geary sees Justin as intelligent with an understanding of team dynamics. Justin appears to be gaining some self-confidence now that he is heading to New York for college.

Diagnosis: Justin does not meet the DSM-IV conditions for ADHD. His reaction to the prescribed stimulants included increased hyperactivity and verbally aggressive

behavior, further suggesting it was not the proper diagnosis. However, Justin's low energy, low self-esteem, and poor concentration could be symptoms of Dysthymic Disorder (American Psychiatric Association, 2000). There also may be an anxiety disorder or other problem at the root of his thumb sucking.

Treatment Plan: Psychotherapy is recommended to address issues of depression, and behavioral therapy could address Justin's thumb sucking. Additionally an evaluation for medical treatment such as antidepressants is recommended.

1.2 ADHD in *Thumbsucker*

"You're only given a little spark of madness. You mustn't lose it."

Robin Williams (Bailey, 2006b).

Thumbsucker's portrayal of ADHD raises questions about the legitimacy of ADHD diagnosis in schools, including over-diagnosis and the use of stimulants. By showing a situation where a boy is arrested one time for inappropriate behavior and immediately prescribed medication, the motion picture takes on a critical view of ADHD in line with media portrayals of ADHD as a fashionable solution for authority figures. Though the school counselor only diagnoses Justin after his arrest, there are some symptoms of ADHD woven into the story prior to his diagnosis that could be seen as foreshadowing.

At the beginning of the motion picture, Justin is shown having difficulty waking up and getting out of bed. Sluggishness, while not a DSM-IV symptom for diagnosing ADHD, is seen as a useful indicator for ADHD diagnosis in schools (House, 2002). Difficulty waking is also a symptom of childhood bipolar disorder (Papolos and Papolos,

2002), but this can be ruled out by noting that Justin does not meet other criteria for bipolar disorder. His daydreaming, represented by dream sequences, is also considered a useful indicator of ADHD in the schools but again does not satisfy a DSM-IV criterion (House, 2002). The integration of two non-DSM criteria for ADHD in the portrayal of Justin suggests that the author of the book the motion picture was based on and the director may be basing their understanding of the disorder on popular representations rather than clinical diagnostic criteria. Alternatively, they could have intentionally used symptoms established by pop-culture in an effort to highlight misunderstandings of ADHD.

Justin does meet some of the DSM-IV criteria for ADHD in the category of inattention. He does not pay attention in class or at the family dinner table, which shows inattention in two different settings. He doesn't listen when spoken to, and his schoolwork is consistently incomplete. However, only three of the DSM-IV symptoms of inattention are met. In addition to Justin meeting less than six DSM-IV symptoms, we are not able to determine from the motion picture whether any symptoms were present prior to age seven. Based on Justin's behavior represented in the motion picture, he does not meet the criteria for ADHD.

The effects of the ADHD treatment are dramatic and alter Justin's life. Where he was previously never prepared, with the medication he is able to read *Moby Dick* in one sitting. Rather than a sign of the medication balancing Justin's inability to concentrate, this behavior seems to be a hyperactive reaction to the stimulant by someone who does not have ADHD. In addition to experiencing these bursts of concentrated activity, he becomes talkative, active, and more self-confident. Justin begins acing his classes and

becomes the hero of the debate team. His change from not interacting in class or speaking up to someone who wins every debate is dramatic. By carrying over the elements of debate to every-day interaction, Justin discovers a way to be more social. However, he also intrudes on people by constantly arguing even when the situation is inappropriate for debate. One example of this type of behavior is shown when his mother starts a new job. He begins citing statistics to her in an attempt to win the argument that he started, claiming she should not take the new job, even though she did not ask for his input.

Overall, the tone of the motion picture appears critical of Justin's diagnosis with ADHD and the ensuing behavioral effects of the medication. When the teacher and school counselor suggest to Justin and his family that he has ADHD and should be medicated his parents immediately question the standards for diagnosis. His mother criticizes the list of symptoms provided by the counselor, pointing out how broad they are. Justin, however, is pleased by the idea that all of his problems may only be caused by a treatable disorder. The idea that taking a pill could enable him to maintain friendships and succeed in life is encouraging, and he convinces his mother to let him take the medication. Thus it is Justin's disenchantment that we are led toward in this exploration of ADHD diagnosis and treatment.

1.3 Medication

Thumbsucker tells the story of a boy who is misdiagnosed with ADHD and his ensuing journey of self-discovery. However, it is not clear whether the false ADHD diagnosis is an intentional representation of over-diagnosis by schools or an inaccurate understanding of the disorder. While the DVD includes a conversation between the

author of the book, Walter Kirn, and the director who adapted the story, they do not address the issue of ADHD in the special feature. However, Kirn published an article in the December 2000 issue of GQ critical of Ritalin that acts as a clue to his own opinions about ADHD treatment:

“a funny drug, this Ritalin. It feels like speed to the person taking it but looks like a sedative to observers. It’s no wonder, I thought, that parents and teachers love the stuff.

I felt guilty each time I renewed a prescription because the drug was so damned powerful — as euphoria-inducing as any illegal substance I’d ever tried. In fact, its effects were better. Cleaner. Tighter.

Plus, compared to street drugs it was cheap. For the amount cokeheads pay for one night’s high, I could soar for a month without fear of police.” (Kirn, 2000; ¶11-13).

Like the portrayal of Justin’s use of Ritalin, it could be argued that Kirn’s own reaction was due to a misdiagnosis of ADHD and inappropriate use of Ritalin since the effects are speeding him up rather than settling him down. The effects of amphetamines on individuals who do not have ADHD are similar to those of naturally occurring adrenaline (Ghodse, 2002). By effecting neurotransmitters in the central nervous system, amphetamines increase mood, alertness, energy, and self-confidence (Ghodse, 2002). While the body develops a tolerance to some effects of amphetamines, including mood elevation, tolerance does not occur for ADHD symptoms treated by amphetamines (Ghodse, 2002). Since reduction of anti-social behavior and increased attention span can be treated with amphetamines without tolerance occurring, amphetamines are considered

effective in treatment with increased dosages not required for continually effective results (Ghodse, 2002), Kirn's need to increase his medication to reach that productive high (Kirn, 2000), as well as the decline in Justin's self-confidence seen in *Thumbsucker*, indicate they were chasing the euphoric effects of amphetamines rather than treating attention problems.

Most criticism of ADHD medication centers on overuse of the diagnosis by parents and teachers to control children (Rutherford, 2004b). Though the school does initiate the diagnosis in *Thumbsucker*, Justin himself is the instigator of treatment while his parents remain skeptical of the diagnosis. He only comes to question the medication when another member of the debate team sees Justin taking his medication in a public restroom before a debate and criticizes him by saying it is now obvious why he has changed so much. The teammate tells Justin that he is overmedicating and a "speed freak." This attack results in Justin's insecurity during the debate, and he loses for the first time since joining the team.

Later Mr. Geary, who initially encouraged the diagnosis and medication for Justin, tells him he has turned into a monster – calling him glib, arrogant, and out of control. After the debate loss and criticism from Mr. Geary Justin attempts to talk to his father, who responds to Justin's questions with anger. Following this series of negative events Justin becomes disenchanted with the medication, which is no longer solving all of his problems, and throws it away. His daydreaming reappears immediately in a dream-like sequence where he is searching through trash cans for the pills. The following morning his mother notices that he looks ill, and Justin recites the information the debate team member told him about the medication being three molecules different from

cocaine. This comparison of ADHD medication to cocaine addresses another concern about stimulant treatment. Timini (2005) claims ADHD stimulants are “virtually indistinguishable from the street drugs speed and cocaine” (p. 110). Though both cocaine and ADHD-prescribed amphetamines are addictive stimulants, cocaine has the additional property of being a local anaesthetic while amphetamines do not (Ghodse, 2002). However, the similarities may be more noticeable because of the paradoxical rise in stimulant use in schools to treat ADHD occurring simultaneously with a war on drugs that is raising public interest in drug use (Timini, 2005).

Perring (1997) found that resistance to drug use by children stems from “side effects, unnaturalness, profit motives, thought control, competitiveness, and doctors' power” (¶1). Profitable drug companies creating ADHD medication are as much criticized as the medications themselves (Timini, 2005). With fears of biased studies funded by these companies, results showing positive treatment are questioned (Timini, 2005). “Where there is a conflict between giving accurate information and making sales it is not always the worthiest motive that carries the day” (Timini, 2005; p.111). Though all of these issues are not addressed in *Thumbsucker*, the criticism by Justin’s mother of diagnostic criteria and the repeated likening of stimulant treatments to cocaine and speed do question the legitimacy of the disorder and amphetamine treatment. This negative stigma for both ADHD and drug treatment can place an additional burden on families who must make the decision between being seen as trendy for accepting an ADHD diagnosis or as uncaring for not getting treatment for their child’s disorder, all while facing public scrutiny due to the popularity of ADHD in the media (Bailey, 2006a; Rutherford, 2004b).

The portrayal of twin boys diagnosed with ADHD in the television series *Desperate Housewives* (Cherry, 2004) is another example showing a negative view of ADHD diagnosis and drug treatment. The Skavo twins do present symptoms of hyperactivity and impulsivity in multiple situations, however they also show some signs of conduct disorders. The school diagnoses the boys with ADHD and prescribes Ritalin. In an emotional scene Lynette Skavo, the mother, chases the two boys around the house, pills in hand, until she traps them under a table. Rather than forcing them to take the pills as she had intended, Lynette seems to realize she does not want to alter her children with medication. She chooses not to give her sons the prescribed Ritalin. The theme of allowing individual personalities, no matter if they are associated with a disorder, to remain and become accepted by the individual and family parallels that of *Thumbsucker* but this time from a parental point of view.

In a further representation of the negative associations of ADHD treatment, Lynette is introduced to the idea of using her sons' Ritalin as an energy booster for herself. After becoming worn out while volunteering at her children's school, another mother tells Lynette that taking Ritalin improves productivity. Feeling less than perfect at fulfilling the role of mother, Lynette begins taking her sons' medication to become a super mom. She is shown as extremely high strung and productive, staying up throughout the night to dust and polish the entire house. Lynette's reaction to the use of Ritalin is similar to Justin's. Both tear through a task for hours on end, Lynette cleaning and Justin reading. Later Lynette's inability to sleep and addiction to the prescription are addressed as she searches for a cure to her insomnia through acupuncture and herbal remedies but continues taking the Ritalin. Amphetamines are both physically and psychologically

addictive, and symptoms of withdrawal include fatigue, depression, hunger, and craving of the drug (Ghodse, 2002). After Lynette uses all of her sons' Ritalin, she steals pills from another child's medicine cabinet. This portrayal addresses not only the effects of stimulants on individuals who do not have ADHD, but also the addictive properties. The lack of coverage of behavioral treatment in both *Thumbsucker* and *Desperate Housewives* further highlights popular interest in medication controversies. Future analysis of this series could assess television representations of children and families interacting with ADHD and views of prescribed medication.

2.0 *Pushing Tin* and Adult ADHD

"The world belongs to the energetic." Ralph Waldo Emerson (Bailey, 2006b).

Pushing Tin follows an air traffic controller, Nick, and his family through a period when a new controller arrives. During this time Nick feels threatened in his personal life and professional standing as he and the new controller become rivals. Though Nick's own ADHD symptoms are not diagnosed in the motion picture, ADHD is brought up through his son when the school schedules an appointment to discuss his lack of attention. Nick and his wife, Connie, later briefly discuss the possibility of medications such as Adderall or Ritalin for their son. Following is a fictional patient evaluation of Nick and a discussion of adult ADHD in relation to its portrayal in *Pushing Tin*.

2.1 Fictional Patient Evaluation for Nick Falzone

Patient's Stated Reason for Coming: Nick has been making errors at work and is having marital difficulties.

History of Present Illness: Nick feels the problems began with the introduction of a new air traffic controller at his place of employment. It is unclear whether his attention problems have been present since childhood.

Past Psychiatric Illness, Treatment, and Outcome: Nick had not been treated previously for any psychiatric problems.

Medical History: Nick did not share his past medical history.

Psychosocial History: Nick leads an active life with a stressful career as an air traffic controller. When he is away from work he spends time with his coworkers at bars, at backyard gatherings, or eating out after work. He does not sleep much and participates in reckless behavior. Nick recently cheated on Connie with the wife of the new air traffic controller. Connie moved out for a while, but they are now trying to work out their marital issues.

Drug and Alcohol History: Nick drinks often and claims to have the tolerance of a walrus. His tolerance appears to be the only symptom of Alcohol Dependence present. There is no indication of drug use.

Behavioral Observations: Nick is talkative, excitable, and friendly. He is constantly moving and/or talking. His appearance is neat and clean.

Mental Status Exam: Nick seems fully oriented to place, person, time and situation. There is no evidence of thought disorder, psychotic processing, or homicidal or suicidal thoughts. His memory appears intact.

Functional Assessment: Before Connie left, Nick was becoming agitated and jealous. His work and personal functioning ceased after she left, but he appears to be regaining self-control and has gone back to work.

Strengths: Nick has a genuine interest in fixing his marriage as well as continuing in his profession.

Diagnosis: Adult ADHD not otherwise specified. Nick mainly exhibits symptoms of hyperactivity/impulsivity, but age of onset is unknown.

Treatment Plan: Marriage and Individual Psychotherapy are recommended. Nick should also be evaluated for medical treatment of ADHD.

2.2 Adult ADHD in *Pushing Tin*

“They're going to have to build planes faster to keep me interested”

Nick Falzone (Newell, 1999).

Unlike Justin's character in *Thumbsucker*, Nick's character does fulfill the DSM-IV criteria for ADHD by exhibiting six of the symptoms for hyperactivity/impulsivity. He fidgets in multiple settings including at work, at home, and in public. He is restless, constantly active, and claims he cannot sleep. Additionally, these symptoms fit with the transition of childhood hyperactivity into fidgeting, feelings of restlessness, and an inability to relax that are characteristic of adult ADHD (Rutherford, 2004a). A sign of impulsivity, Nick's inability to wait for his turn, is portrayed during a scene in a diner when all of his friends place their order at once and confuse the waitress. Unwilling to wait for everyone to place their orders, Nick grabs her notepad and dashes to the counter to place the orders himself. Additionally his driving is aggressive and reckless, intruding upon others by rushing up behind cars and then honking at them for being in his way. Beyond the six symptoms for hyperactivity/impulsivity, Nick also exhibits one symptom

of inattention when he misses his own house and parks his car in the neighbor's driveway before realizing the error.

Despite the many symptoms of ADHD present in Nick's character, his ADHD is not directly addressed in the motion picture. This representation correlates to the lack of media coverage on adult ADHD compared to that of ADHD in children. However, these children are becoming adults with ADHD, and the increase in diagnosis and hereditary manner of the disorder suggest adult ADHD be addressed (Magill-Lewis, 2005). While between four and eight percent of adults have ADHD, only one percent of them are being treated (Magill-Lewis, 2005). ADHD in adults is similar to that in children, but typically the hyperactivity of childhood ADHD will fade while organization and attention problems continue (Nigg et al., 2005). Though some symptoms fade, ADHD in adults can still have a significant impact (Magill-Lewis, 2005). ADHD in adults is related to poor driving records, unemployment, higher divorce rates, and lower wages (Magill-Lewis, 2005). "The inability to focus and concentrate when communicating with others can lead to a multitude of social malfunctions" (Magill-Lewis, 2005; p.17).

Another issue left unaddressed by *Pushing Tin* is the possibility that Nick's daughter also inherited ADHD. Neither of his children are main characters, but the son is discussed in relation to ADHD while the daughter's behavior is not mentioned. This also parallels popular representations of ADHD in the media, with the majority of research as well as discussion related to boys rather than girls affected by the disorder (Rabiner, n.d.). Future research could address whether more recent motion pictures take on the topics of adult ADHD and girls with ADHD now that more attention is shifting to these topics.

3.0 ADHD Controversy

“The media have created a frenzy of negative publicity surrounding ADHD.”

(Bailey, 2006a).

One main conflict of ADHD lies in the lack of medical tests or otherwise objective criteria for diagnosis. While most theories about the disorder concentrate on biomedical causes, the diagnosis remains subjectively determined based on patient, family, and therapist input (Seligman and Rosenhan, 1998). This leads to concerns over the roles of individual judgment and bias (House, 2002). The DSM-IV does not outline how clinical information should be gathered, and even if a clinician uses established behavioral rating scales there is no standard structure for methodology (House, 2002). While the ability for an individual to weigh multiple factors in the diagnosis gives some strength to this method (House, 2002), research has shown that only 15 percent of psychologists assess individuals across multiple settings with multiple sources despite this multimodal approach being considered “best practice” (Handler & Dupaul, 2005; p.402). Even though psychologists in general follow the DSM-IV criteria more strictly than pediatricians, Handler and Dupaul also found that different types of psychologists, such as school versus clinical, use different assessment methods and thus affect the diagnosis.

Additionally criticism arises in the presentation of ADHD as “biological fact” (Timini, 2005; p. 120). While other biomedical disorders such as schizophrenia show significant, recognizable and documented biological symptoms such as changes in the brain revealed by MRIs (Torrey, 2001), even after diagnosis of ADHD comparable results are not present. While these changes in the brain are not clearly a cause or result

of schizophrenia (Hamstra, 1994), the suggested use of biological and neurological diagnostic criteria (Westen, Heim, Morrison, Patterson, & Campbell, 2004) show forward movement for biomedical development in the diagnosis of schizophrenia. In contrast, the influence of social ideas is being emphasized as an integral component to understanding ADHD (Doucette, 2004) despite the emphasis on biomedical causes (Seligman and Rosenhan, 1998). Although Rutherford (2004b) claims that one of the myths of ADHD perpetuated by the media is that it can be caused by family life, others encourage the inclusion of environmental conditions such as family life and social interactions in the diagnostic process (Doucette, 2004). Changes in family life and social circumstances including higher divorce rates, more single-parent homes, and drugs in schools also could be creating a shift in behavior resulting in higher ADHD diagnostic rates (Timini, 2005).

3.1 Children, Media Use, and ADHD

Timini (2005) addresses the media's high level of sensory exposure as one possible environmental cause for the decline in student interest in the classroom. In studies of television exposure and attention problems, environmental experiences have affected "mental and emotional growth by either setting up particular circuitry ('habits of mind') or depriving the brain of other experiences" (Healy, 2004; ¶2). However, the impact of these factors has not been researched enough to determine whether television exposure would affect classroom attention due to differences in stimulation or permanent changes in the brain (Healy, 2004). Other studies on children and media exposure have found a broad range of results relating to performance. In one study television and computer use did not affect grades in school, but playing video games at the expense of

reading did result in lower grades (Elias, 2005). Another study found that children playing video and computer games were more vigilant than those who were not, while television viewers were more cautious (Davison, 2004).

An area for future research on media impact and ADHD development is that of editing in motion pictures and television. Known as suture, viewers will accept large shifts and transitions between scenes, locations, and characters (Wedding, 2005). “Suture works because cinematic coding makes each shot appear to be the object of the gaze of whoever appears in the shot that follows” (Wedding, 2005; p.4). By comparing motion pictures through the decades, a difference can be seen in how many shots are tied together and how rapidly the various points of view change. While motion pictures once mainly followed movement with the camera, the viewer’s eye, more recent motion pictures mimic the style of commercials by editing several sets of information together to compose a scene. Whether the development of mental processes to comprehend rapidly received pieces of information affects the evolution of attention spans is of interest to the field of media psychology.

4.0 The Future of ADHD

Questioning of ADHD diagnosis and treatment has become a common activity of the media and thus the public. Is the media accurately representing the views of society or creating the paranoia about stimulants and over-medication of the youth? Is the media itself part of the cause for the increase in children’s attention disorders? Or, perhaps, is the increasing rate of ADHD diagnosis a sign of an evolution in attention?

While studies on adults have shown that multi-tasking inhibits brain functioning, “some evidence suggests that children’s brains might be changing so they can juggle and concentrate better than their elders” (Elias, 2005; ¶8). Perhaps one day Attention Deficit will not be defined by the inability to concentrate on one thing, but rather as the inability to digest multiple bits of information simultaneously. Our society is increasingly oriented toward multiple streams of information, with children comfortable interacting with six people via instant messaging while downloading music, watching television, and researching numerous topics online simultaneously. Perhaps the next generation will define this fragmented attention as a normal skill.

Resources

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