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To Drug or Unplug – Lure of the Elusive Quick Fix

Sensory deprivation, motor delays, and attachment disorders are but a few of the developmental problems we are seeing in *Today's Child*. At 6.5 hours per day of television and videogame use time (Rideout et al 1999), a world wide epidemic of childhood TV and videogame addiction is sweeping the nation, resulting in increased aggression, obesity, attention problems, learning difficulties, poor academic performance, family conflict, sleep disorders, sexual promiscuity, and a host of social and behavioral problems the health and education systems are only beginning to detect, much less understand (American Academy of Pediatrics 2006, Christakis D 2004).

We live in the "Me Generation", a world where children get what they want and adults have forgotten what it means to parent. Immediate gratification has eliminated "Inner Drive", a force essential for the survival of our species. Virtual Parents abound, as life gets busier and connection with partners and family gets put on the back burner. Technology's damaging effects on childhood attachments and development has resulted in a surge of professionals diagnosing and medicating these children. The US Surgeon General's Report on Mental Health states that the past decade has seen an unprecedented rise in incidence of childhood mental disorders such as Autism, Attention Deficit Hyperactivity, Separation Anxiety, Generalized Anxiety, Post Traumatic Stress Disorder, Depression, Bipolar, Attachment and Reactive Attachment, Obsessive Compulsive, Oppositional Conduct, eating and sleep disorders, all of which have their origin in the quality of the primary attachment between the parent and the child.

With the rise of diagnosed mental disorders, another unfortunate fact for children is the concomitant rise in psychiatric medication. Twenty-five years ago, children with mental health diagnoses were extremely rare. In the 21st century **21% of elementary children have a mental health diagnosis, with 15% on medication** (Michael and Crowley 2002). While there are many problems associated with medicating children, the most worrisome fact is that there are no psychiatric medications available that have been tested on children, only medication that have been tested on adults (Fisher and Fisher 1996, Antonuccio et al 2002). What this means is that **there is no short or long term knowledge regarding safe dosage levels to achieve drug efficacy in children**, as there has not been any research of these drugs on children. In fact, the

medical system calls these psychiatric drugs “off label” medications, as they need to employ guess work to determine prescribed dosage levels (Mental Health: A Report of the Surgeon General). Unfortunately, the marketing of these psychiatric medications by pharmaceutical companies has been so pervasive, the medical community is readily handing out these drugs to children, largely in response to parent and teacher demands for some sort of quick fix for these apparently emotionally disturbed children. Did anyone think to recommend a trial period of 2-3 months without TV and videogames? Likely not. Declining literacy has increased academic expectations by teachers, parents and government, ultimately creating a catastrophic situation which can only be described as The Perfect Storm. We are losing our children to virtual reality... Does anyone really care?

Supporting Research Literature - Summarized

American Academy of Pediatrics, Committee on Communications (2006) *Children, Adolescents, and Advertising*. Pediatrics Vol 118 No 6, 2562-2569. This paper points out that exposure of children to TV advertising correlates with obesity, poor nutrition, and cigarette and alcohol use.

American Academy of Pediatrics, Committee on Public Education (2001) *Children, Adolescents, and Television*. Pediatrics Vol 107(2), 423-426. This policy statement describes the negative effects of television viewing as violent or aggressive behavior, substance use, sexual activity, obesity, poor body image, and decreased school performance. This statement recommends no TV or videogames for toddlers under the age of 2, and a limit of 1-2 hours per day for children.

Antonuccio D, Burns D, Danton W (2002) *Antidepressants: A Triumph of Marketing Over Science?* Prevention and Treatment, Vol 5 No 1, July 2002 pages 1-21. The authors of this paper performed a meta-analysis of the Food and Drug Administration database of 38 controlled trials on 6,944 patients used in the initial approval for the most popular anti-depressants (fluoxetine, paroxetine, sertraline, venlafaxine, nefazadone and citalopram). Kirsch I, Moore T, Scoboria A, and Nicholls S (2002) found that antidepressants demonstrated a clinically negligible advantage over inert placebo, and state how these results are surprising because they come from studies underwritten by drug manufacturers. Doesn't this imply that it is an 'industry standard' to assume that drug trials by pharmaceutical companies are essentially biased (C. Rowan comment)? The meta-analysis goes on to state that these findings do not appear to justify the popularity of anti-depressants, which may have been fueled in part by publication bias and outstanding marketing. This paper reports that the US pharmaceutical industry is a \$250 billion annual business, of which \$19 billion goes to advertising, making it the most profitable industry in America, number one in return on revenues, return on assets, and return on equity (Fortune 2000). Surprised? Read on. The pharmaceutical industry had a combined lobbying and campaign contribution budget of \$197 million in 1999 and 2000 alone, larger than any other industry (Wayne and Peterson 2001), and has 625 registered lobbyists (more than there are members of congress)!



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Christakis D, Zimmerman F, DiGiuseppe and McCarty C (2004) *Early Television Exposure and Subsequent Attentional Problems in Children*. Pediatrics Vol 113, 708-713. This study reports that for every one hour of television watched per day, there is a 10% increase in attention problems by the age of 7 years.

deSilva S. (2006) Director General Centre for Education Statistics reports results from Program for International Student Assessment (2006), a comprehensive survey of 15 year olds indicates that reading performance has declined to placing 4th in international standing, compared to placing 3rd in 2003.

Fisher R and Fisher S (1996) *Antidepressants for Children – Is Scientific Support Necessary?* The Journal of Nervous and Mental Disease Vol 184 No 2 pages 99-102. This article is concerned with issues pertaining to the degree to which clinical therapeutic decisions can reasonably depart from the best available scientific data, and state that ambiguity exists as to how much freedom practitioners have to accept or reject the existing scientific paradigm.

Kirsch I and Antonuccio D (2004) *FDA Testimony On the Efficacy of Antidepressants With Children*. Review of this testimony indicates that there are a total of 12 published randomized clinical trials in the entire world literature regarding the efficacy of antidepressant use with children. 8 of these 12 trials failed to find any significant benefit of medication over placebo, and the other 4 that did show benefit were clinician rated, not patient rated measures. This testimony also reports that overall, the effects of antidepressant medication on children is actually weaker than in adults.

Hancox R, Milne B and Poulton R (2005) *Association of Television During Childhood With Poor Educational Achievement*. Archives of Pediatric and Adolescent Medicine Vol 159 No 7, 614-618. This study concluded that television viewing in childhood and adolescence is associated with poor educational achievement by 26 years of age.

Mental Health: A Report of the Surgeon General, *Overview of Mental Disorders in Children*. This paper describes the general categories of mental disorders in children, assessment and treatment strategies, and goes into depth regarding psychopharmacology treatments stating that 1) there are no short or long term studies regarding safety and efficacy of psychotherapeutic medication in children, 2) there is limited information regarding the pharmacokinetics (drug concentrations in body over time), and 3) combined effectiveness of drugs and psychosocial treatments is rare. This report goes on to say that when the FDA approves a medication for general population use, approval is based on studies conducted on adults only. Therefore when a practitioner prescribes an "off label" drug for a child, the practitioner is required to "guess" the dosage parameters. Due to reluctance by the pharmaceutical companies to perform drug research on children as it was reportedly too "costly", the US Congress subsequently passed the FDA Modernization Act 1999 Title 21 USC 505A (g) to create financial incentives for pharmaceutical companies to perform clinical research on children.

Michael K and Crowley S (2002) *How Effective are Treatments for Child and Adolescent Depression? A Meta-Analytic Review*. Clinical Psychology Review, Vol 22 pages 247-269. The authors of this paper reviewed and analyzed comprehensive sample 38 studies from 1980 – 1999 on the psychosocial and pharmacological treatment of child and adolescent depression and showed that while the psychosocial interventions provided moderate to large treatment gains, the pharmacological interventions were not effective in treating depressed children and adolescents.



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Rideout V, Vandewater E and Wartella E (2003) *Zero To Six: Electronic Media In The Lives of Infants, Toddlers and Preschoolers*. The Henry J Kaiser Family Foundation Report, California. This report documents the recent explosion of electronic media targeted at the very youngest of children 0-6 years of age, and states that 99% of homes have a TV, 36% have a TV in their bedrooms, 50% have a videogame player, and 73% have a computer. Despite the fact that the American Academy of Pediatrics recommends toddlers under the age of 2 years should not use ANY electronic media, 68% use electronic media daily, 25% have TV's in their bedrooms and average use is 2 hours 5 minutes per day. Regarding extent of TV usage, children are less likely to read in high use homes, TV use is not income dependent, but that there is less usage in homes where one parent holds a college degree.

Roberts D, Foehr U, Rideout V, Brodie M (1999) *Kids and Media at the New Millennium: A Comprehensive National Analysis of Children's Media Use*. The Henry J Kaiser Family Foundation Report, California. This report documents that children spend on average 6.5 hours per day of combined media use (TV, videogames, computers), and 32% of 2-7 year olds and 65% of 8-18 year olds have TV's in their bedrooms.

Walson P (1999) *Patient Recruitment: US Perspective*. Pediatrics Vol 104 No 3 pages 619-622. This paper describes the difficulties in patient recruitment of children for clinical drug trials as the following: identification of eligible patient population, explaining the study, obtaining true informed consent, maintaining ethical standards, recruiting adequate, representative sample, retaining subjects until study completion, and minimizing the risk/benefit ratio. I suppose it would be difficult to convince a parent they should enroll their child in a clinical trial of a drug that has not been proven effective (C. Rowan comment).