COUNCIL FOR EVIDENCE-BASED PSYCHIATRY

Use of psychiatric drugs in children and adolescents has been rapidly expanding across the developed world. The potential long-term damage these drugs can have on developing brains has not been properly assessed. Furthermore, there is now evidence that increased use of medication within this age group may lead to worse long-term outcomes.

Recent figures suggest we are now in the midst of a global epidemic of child and adolescent psychiatric disorders. For example, it has been estimated that 1 in 10 children and young people aged between 5 and 16 have a clinically diagnosed mental health disorder.[1] Increasing rates of diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) have boosted this figure with recent estimates suggesting that around 5% of the global child population suffers from ADHD.[2]

Figures like this are concerning because there no clear biological markers or causes that have been discovered for child and adolescent psychiatric disorders, including for ADHD. Nevertheless, child and adolescent psychiatric disorders are still being represented and treated as though they are biologically based conditions. This in turn has fuelled huge increases in the dispensing of psychiatric drugs to young people. For example, NHS prescriptions for the stimulant Methylphenidate have increased from around 420,000 in 2007 to around 657,000 in 2012,[3] a rise of 50% in just six years. Methylphenidate is usually given to children and adolescents to treat ADHD symptoms.

Data concerning the safety and efficacy of such drugs is far from reassuring. In 1999, a large trial tested the efficacy of Methylphenidate for children diagnosed with ADHD, with the authors concluding that drug treatment was more beneficial than behavioural treatment alone[4]. The findings led to many organizations, including the Department of Health, recommending that such stimulant medication should be the first line of treatment for ADHD despite serious questions being asked regarding the study's methodology, the conflict of interests of its authors, the selection and recruitment process, the behavioural interventions used and the lack of attention to side effects.[5, 6] This highly influential study followed up the participants at 24 months, 3 years and beyond and found that stimulants were no more effective in the longer term than behavioural treatment, and on some measures was less effective.[7, 8]

Criticisms of stimulant treatment deepened in September 2005 when the Oregon Health & Science University Evidence-Based Practice Center published the findings of a comprehensive review of studies conducted on ADHD drugs. Their review concluded that evidence for the common belief that these drugs could positively affect 'academic performance, risky behaviours, social achievements, etc.' was lacking. In addition the authors stated: 'We found no evidence on the long-term safety of drugs used to treat ADHD in young children or adolescents.'[9] This finding is consistent with other long-term studies that have shown no evidence of long-term improvement and an increased likelihood of adverse outcomes[10,11]. As the leading ADHD researcher Dr. William Pelham summarised, 'No drug company in its literature mentions the fact that 40 years of research says there is no long-term benefit of medications for ADHD. That is something parents need to know.'[12]

Adverse effects of stimulants

Stimulants are known to cause an array of adverse effects, which include poor appetite, weight loss, growth suppression, insomnia, depression, irritability, confusion, mood swings, obsessive compulsive behaviors, psychosis, explosive violent behavior, personality change, lowered self-esteem, loss of creativity, disinterest, a flattening of the emotions, stomach ache, headaches, movement disorders, tachycardia, pituitary dysfunction and dizziness.[13]

Stimulants can produce many other adverse reactions, including persistent brain dysfunction and some believe this can include potentially irreversible central nervous system damage. A well-known critic, Dr. Breggin, has claimed: 'Enough is already known about the lack of benefit and the negative impact of

stimulants to stop prescribing them for ADHD or for the control of any symptoms or behaviors in children.'[14] Researchers at the University of Buffalo have conducted studies that showed that Ritalin might also cause long-lasting changes in brain function. This study, conducted on rats, showed changes similar to those caused by the use of cocaine.[15] Furthermore, there is growing evidence that stimulant-induced biochemical changes can be irreversible, with studies showing that amphetamine and methamphetamine can cause permanent neurotransmitter system changes and cell death.[16]

In addition, stimulants are drugs of abuse. One study followed 492 children into their late 20s and found a significant increase in cocaine and tobacco dependence amongst ADHD subjects treated with stimulants compared to ADHD controls who did not receive stimulant treatment. This study concluded that there was 'a significant difference in rates of daily smoking and tobacco dependence for those with ADHD who had used stimulant medication in childhood in contrast to controls.'[17]

Antidepressants

Antidepressants are now widely prescribed to young people, despite evidence that seriously challenges the efficacy and safety of both the older tricyclic antidepressants and the newer selective serotonin reuptake inhibitors (SSRIs). In 2004, for example, Jureidini and colleagues reported that none of the studies on SSRI antidepressants for childhood depression have, relying on patient or parent-reported outcomes, showed significant advantage over a placebo.[18] A review by the FDA of all clinical trials of antidepressants in children and adolescents showed that 4% of all subjects experienced suicidal thinking or behaviour, including actual suicide attempts – twice the rate of those taking the placebo. This led to a black box label warning in the US in 2004, warning about the increased risk of suicidal ideation in the under 18 age group when taking SSRI antidepressants.[19]

In 2004 The Lancet published a meta-analysis of published and unpublished clinical trials of SSRI antidepressants on children. The study concluded that 'the published data suggest a favourable risk-benefit profile for some SSRIs; however, addition of unpublished data indicates that risks could outweigh benefits of these drugs (except fluoxetine) to treat depression in children and young people.' The authors of the study were highly critical of the practice of withholding negative clinical trial data: 'Drug sponsors who withhold trial data (or do not make full trial reports available) undermine the guideline programme, which can ultimately lead to recommendations for treatments that are ineffective, cause harm, or both.'[20]

Such behaviour led Dr. Sami Timimi – a prominent UK child psychiatrist – to conclude: 'I believe that an unhealthy interdependence between pharmaceutical companies and doctors has skewed child psychiatric practice toward over diagnosis and overprescribing and has diminished our ability to use non-medication-centred and more context-rich approaches.'[21]

Given concerns over the safety and efficacy of these medications as well as the behaviour within the pharmaceutical industry, the Medicines and Healthcare Products Regulatory Agency (MHRA) decided in 2003 to disapprove the use of these drugs, with the exception of Prozac (fluoxetine), in children and adolescents.[22] Despite this disapproval, it is still perfectly legal for doctors to prescribe SSRI antidepressants, off label, to children and adolescents.

CEP calls for three changes with respect to the medicating of children and adolescents: firstly, an objective, evidence-based approach to evaluating these drugs; secondly, better public understanding of how these medications work, and thirdly, a more evidence based approach to evaluating the risk/benefit profile for psychiatric medications given to young people including the recognition of potential long term harms.

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