



**The Tuberous Sclerosis Association**

This document can be found at [www.tuberous-sclerosis.org](http://www.tuberous-sclerosis.org)

It reports on a presentation at a meeting of the TS Alliance in San Diego in July 2001.

### **Aggressive Behaviour : Management at School and at Home**

**Dr Gail Owen, staff psychologist at the Children's Institute in Pittsburgh,**

The take home message from this session was that parents and teachers should keep on reinforcing desirable and appropriate behaviour and that they should never take it for granted. If you ignore it, you'll get worse behaviour!

There are 3 different categories of behaviour. Category 1 is behaviour that is desirable and appropriate. This should always be reinforced. Category 2 is behaviour which is disruptive but not harmful (such as spitting or tantrums). You should ignore it. If we're not careful about managing such behaviours we may maintain them by handling them wrongly. If we reward them by giving them too much attention, the perpetrator comes back for more by repeating them again and again, so ignore such behaviours that are not dangerous. Category 3 is reserved for the behaviours which must be blocked or punished. These are behaviours which are self-injurious, aggressive or dangerous.

So, ask yourself what category the behaviour falls into and define the behaviours objectively. Stereotypical behaviours are repetitive, non-functional behaviours such as body-rocking, hand-waving, body-twirling. You can try to redirect or suppress these self-stimulating behaviours (- medication can reduce them and therapies can help redirect them -) but you won't eliminate them. They are Category 2 behaviours. Self-injurious behaviours include forceful striking, scratching, poking, hitting self, arm-biting, eye poking are Category 3 behaviours.

Behaviour always has a function. We don't do anything without a reason. So why do our children have behaviour problems? The main reasons are as follows:

- Communication. This is a very important function of behaviour, and expressive language delay goes hand in hand with behaviour problems. We treat it as a behaviour problem, but really it's a communication problem. You cannot be functional without communication. If you don't have communication, you'll have behavioural problems as a means of communication.
- Escape from Demand. Children may bite and hit etc to escape from demand.
- Social Attention. Children all need attention, and we need to teach them the most appropriate way of seeking this attention. You never stop needed attention.
- Self-stimulation.

- Illness or medical condition. In TS, this includes seizures, inter-ictal irritability and sleep deprivation. A sleep deprived child is a cranky child, so it's vital to work your child's doctor on this to get it right.
- Control. Everyone needs to be in charge of something in his life, and a child with cognitive or physical problems has little control, so behaving badly is one way of giving such a child some degree of control.

Two factors control behaviour – the environment (or the antecedent of the behaviour) and the consequences of that behaviour.

*Antecedent management:*

- Physical arrangement of the room. For example, this should be conducive to calm for children with ADHD.
- Rules. It is important to praise children for following the rules.
- Reward systems.
- Patience and creativity. Don't respond emotionally!

It is important to remember that there is no specific behaviour plan for TS.

**Dr Candace Erikson, associate professor of paediatrics at Columbia University College of Physicians and Surgeons**

Treatment Goals are to reduce the major symptoms of aggression. They involve educating both the parent and the patient, and can include both psychosocial interventions and medical interventions. The management team will consist of the parent and child, the school, and various doctors involved with the child. Before adding a new medication, it is important to consider if the child is tired, hungry or ill, or could the behaviours be secondary to the side-effects of current medication (e.g. phenobarbitone can result in hyperactivity and irritability). The aim of psychopharmacologic treatment is to adjust the balance of the neurotransmitters back towards normal. It's like giving insulin to a diabetic, trying to restore the biological imbalance. You need to weigh the risks of treating versus not treating and to consider the potential drug interactions.

Behavioural issues for which drug intervention can be considered are ADHD, disruption and aggression, PDD, psychotic behaviours or illusions, anxiety and depression.

ADHD (inattention, impulsivity, hyperactivity, non-compliance, oppositional, impulsive aggression. Various stimulants can be prescribed for these behaviours. These include methylphenidate (Ritalin), concerta, dextroamphetamine (Dexedrine), dextroset, amphetamine (Adderall), Pemoline (Cylot). Stimulant dosing is highly variable. They may lower seizure threshold. They can also interact with antiepileptic medications and can decrease appetite, lead to insomnia and may possibly suppress growth. Other possible side effects include headache, stomach ache, irritability, tics and obsessive-compulsive behaviour.

Disruptive Behaviour: It's important to ask whether the violence is associated with seizure activity. If it's directed at a specific target, this is unlikely. Video-EEG monitoring is useful here to determine whether the disruptive behaviour is associated with seizures.

Mood stabilisers can be used – carbamazepine, lithium and valproic acid.

Autistic adults may benefit from Prozac( a serotonin reuptake inhibitor).

Anxiety, depression and obsessive/compulsive behaviours: SSRIs (Prozac, Paxil, Luvox, Zoloft). They are well-tolerated by children, and also used by adults with PDD.

Potential side effects include headache, nausea, drowsiness, insomnia, anorexia, stomach aches, jitteriness, and some agitation.

For anxiety and sedation, the benzodiazepines are useful.. They act very rapidly, but should only be used short-term. They need to be withdrawn slowly.