

Listening difficulties, Behaviour problems and ADHD

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School behaviour problems can be related to children's listening problems either conductive hearing loss due to middle ear disease or auditory processing problems. Middle ear disease is one of the most common illnesses in childhood and around 30% of children in early childhood classes have a conductive hearing loss at any point in time. It is surprising that the contribution of hearing loss to school behaviour problems has received so little attention, despite there being evidence of a strong association between the two. Moore and Best (1988) found that in five Melbourne schools 90% of children in early childhood classes identified by teachers as having behaviour problems had either a current hearing loss or abnormal middle ear function. This writer's work (Howard 1991) in the Northern Territory found a significant association between current hearing loss and children's disruptive behaviour at school. Auditory processing problems may be derived from earlier conductive hearing loss or other factors. Like conductive hearing loss it contributes to difficulties listening, especially in noisy environments.

If people do consider the contribution of listening problems to behaviour problems the common sense assumption it is because children don't hear the teacher's instructions, fail to follow them and get into trouble. However, research I have carried out over a number of years indicates that the way listening difficulties contributes to behaviour problems is more complex than this.

This research found children with listening difficulties (conductive hearing loss or auditory processing problems) responded in ways that often antagonized peers and were seen teachers as disruptive. These responses were often children's dysfunctional attempts to avoid the social exclusion created by hearing loss in the often noisy school environment.

For example, children had difficulty listening when it there was high background noise due to many children talking at the same time. So when it was noisy many children with listening difficulties talked less than other students. While some remained silent and isolated when it was noisy most attempted to socially engage though other means. This was often though pushing and poking others or taking things that belonged to others. However, this type of teasing was often resented by other children and seen as disruptive by teachers.

While most children in the study with listening problems loss talked less than other children, they often got into trouble for when they did talk. This was because they

attempted to talk when they were expected to be quiet. It was when most other students were quiet, that they tried to make use of what was for them the best opportunity to listen.

The research also found that many children with listening problems used visual observation strategies in order to cope with classroom expectations. However, again these responses could be seen as behaviour problems. Looking around in order to know what to do was often seen by teachers as being inattentive. Walking around to observe what others were doing could be seen as hyperactivity. In fact many social responses that are related to hearing loss are similar to the diagnostic criteria for ADHD. Table 1 outlines describes responses of children with conductive hearing loss that ‘fit’ the diagnostic criteria for ADHD.

<i>Diagnostic criteria for ADHD</i>	<i>How response may be related to conductive hearing loss</i>
<u>Inattention</u> Often has difficulty sustaining attention in tasks or play activities	problems hearing make sustained attention difficult
Often does not seem to listen when spoken to directly	Has difficulty hearing, especially when noisy
Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace	Fails to hear instructions
Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as homework)	Avoids and dislikes tasks that require sustained listening
Is often easily distracted by extraneous stimuli	Looking around used as a visual coping strategy
<u>Hyperactivity</u> Often leaves seat in classroom or in other situations in which remaining seated is expected	Wanders around to observe what others are doing and or because can't cope with listening demands
<u>Inattention</u> Often has difficulty sustaining attention in tasks or play activities	Difficulties sustaining attention if have to listen
Often does not seem to listen when spoken to directly	Has difficulty hearing, especially when noisy
Often interrupts or intrudes on others (such as butting into conversations or games)	Difficulties in listening leads problems with turn taking.

A child whose responses are related only to listening problems can easily ‘fit’ the diagnostic criteria for ADHD. It is likely that some children with chronic conductive

hearing problems are misdiagnosed as having ADHD. The following points can assist in avoiding such misdiagnosis.

- Determine if the child has a history of middle ear problem and ensure that children's hearing is tested before a diagnosis is made.
- Indigenous children (Australian Aborigines, Maori, American Indian and Inuit) often have a higher prevalence of conductive hearing loss so be especially aware of the possibility of hearing loss contributing to behaviour problems.
- Determine if diagnostic behaviours are more common when background noise levels are high, children are unsure what to do and/or are being expected to listen.

Being aware of these points can help to avoid misdiagnosis of ADHD. Understanding how behaviour problems can be related to listening problems can also provide a range of strategies to effectively prevent and/or better manage behaviour problems. Traditional school behaviour management strategies often fail when behaviour problems are related to hearing problems. In fact some management strategies may exacerbate behaviour problems. Strategies which seek to limit behaviours without providing alternative opportunities for social inclusion may prompt an escalating cycle of classroom confrontation. This can contribute to students developing negative self concept and teachers experiencing increased stress levels.

Understanding the relationship between listening problems and behaviour problems provides a different framework to understand and respond to children's behaviour problems. There is evidence of positive classroom outcomes from training teachers in a program that focuses on ways of preventing classroom behaviour problems related to conductive hearing loss (www.eartroubles.com). After being trained teachers reported classroom behaviour problems more than halved, student time on task doubled and teacher stress levels halved.

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References

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