What’s keeping you awake at night?

By Ken Aitken

Largely overlooked until very recently, sleep problems are significantly more common in those with ASD than in the rest of the population. Many sleep problems will respond to simple treatments and successful control can have significant effects on behaviour, achievement and quality of life (1). They are reported in over 70% of people with ASD compared to around 50% of age and sex-matched controls (2, 3).

Although amongst the most common problems seen in ASD they are often poorly understood or may go completely unrecognised. This failure is partly because sleep issues do not appear in the diagnostic criteria for ASD and the clinical focus has typically been on the ‘triad of impairments’ in social functioning, communication and restricted and repetitive behaviour.

Poor sleep can result in poorer academic achievement, affecting both focus and vigilance and, when severe, affecting attendance. When untreated, it increases the risk of developing difficult or challenging behaviour (4, 5). It can also slow physical growth, exacerbate seizures and increase risk of disease by affecting immune function (6).

Sleep problems seem to be more common in certain ASD subgroups. A link has been suggested between the regressive onset of ASD behaviour and increased likelihood of sleep problems (7). Higher rates of sleep problems are seen in a number of genetic conditions associated with ASD including the Angelman; Potocki-Lupski and Smith-Lemli-Opitz syndromes (8).

Lower amounts of REM (rapid eye movement) sleep, in particular, are associated with poorer immune function and in childhood with slower physical growth. The amount of REM sleep is reduced when someone is taking stimulant medication, and when taken during childhood growth rate tends to be slowed. In ASD, there is evidence that treatment with melatonin can be helpful in improving both sleep and challenging behaviour (9).

Interestingly, a number of studies have reported various genetic differences in the metabolic pathway which produces melatonin from the dietary amino acid tryptophan (10).

In some, their sleep problems are related to being overweight or unfit, factors that increase the risk of both developing and coping poorly with OSA (Obstructive Sleep Apnoea), a condition in which the airway closes and the person briefly stops breathing when asleep. A number of treatments are helpful in OSA, and beneficial effects have been reported in ASD (11).

In the main the sleep issues seen in ASD are not different in kind from those seen in others but they are often more severe and can be longer lasting. Difficulties with settling to sleep are the most frequent, reported in around 60% of cases, and are usually amenable to behavioural interventions. Some problems, like bedwetting, and nightmares, are more common in ASD, but again treatment approaches do not differ.

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This topic is too broad to cover in any detail here, and readers are directed to the systematic reviews of the science, assessment tools, and treatment options available provided in my recent and forthcoming books on sleep in the ASDs (1, 12).

References:


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Ken is Chairman of the Research sub-group of the Scottish Government’s National Autism Strategy. His forthcoming review of assessment tools, *Evidence Based Assessment in ASD: What is Available, What is Appropriate, and What is Fit-for-Purpose?* will be available early in 2014.

You can see a recent talk of his given at the Action on Autism Research Conference in Glasgow on the Scottish Autism Network site. This can be accessed at: [www.autisminetworkscotland.org.uk](http://www.autisminetworkscotland.org.uk)