

# Autism and Asperger syndrome:

## DENTAL MANAGEMENT

**Nicky Gough\*** provides an overview of autism and Asperger syndrome and outlines strategies to improve the treatment of such patients in the dental practice.

### Brain disorders

Autism was first described in 1943 by American child psychologist, Leo Kanner.<sup>1</sup> Autism is a term used to describe a number of complex, lifelong developmental brain disorders which affect how a person communicates and relates to other people.<sup>2</sup> It is often referred to as Autistic Spectrum Disorder (ASD) as it encompasses a spectrum (range) of disorders with these features which includes autism and Asperger syndrome.<sup>3</sup> The ASD spectrum means that individuals are affected in different ways. Some people with

an ASD are able to live relatively 'everyday' lives whereas some are unable to speak and may have severe learning disabilities and need a lifetime of support.<sup>3</sup> People with Asperger syndrome usually have an average or above average IQ and their language development is usually unaffected.<sup>2,3</sup>

The prevalence of an ASD is estimated to be one in every 100 children. It appears to be more common in males than females, with males being 3-4 times more likely to develop an ASD than females.<sup>1,2</sup> The number of cases of ASD diagnosed has increased over the past two decades. However, it has been argued that this may be due to health professionals improving their diagnosis of such cases.<sup>2</sup>

The Disability Discrimination Act (1995, updated in 2005<sup>4</sup>) states that 'a disabled person should not be disadvantaged compared with a non-disabled person in accessing a service'. Recent moves in the NHS have aimed to improve the equity of access to primary and secondary health care services for individuals with an impairment or a disability. This has placed responsibility on dental professionals to improve care for patients with disabilities.<sup>5,6</sup> In addition, the General Dental Council (GDC) states that patients or groups of patients must not be discriminated against because of a disability.<sup>7</sup> This article will consider the areas of difficulty that individuals with an ASD may encounter, and discuss strategies that can be implemented to improve the care that this group of patients receive.

### The triad of impairments

Individuals with autism have been reported to experience three main areas of difficulty

which is also known as the 'triad of impairments'.<sup>3</sup> (To see a diagram of the 'triad of impairments', visit [www.hale.ndo.co.uk/autism/index.htm](http://www.hale.ndo.co.uk/autism/index.htm).) These are as follows:

#### 1: Difficulties with social interaction

Individuals with an ASD may lack understanding and awareness of other people's emotions and feelings.<sup>2</sup> Young children may not participate in play with other children or share an activity or interest with another child, but may appear to be in a world of their own. They also do not recognise that other people have their own feelings or beliefs and that these may differ from their own feelings, desires or beliefs. This may make them appear to be insensitive.<sup>5,8</sup> As some individuals with an ASD may find it hard to express their feelings, being overwhelmed with sensory overload may cause 'stimming' (repetitive movement such as flapping of arms, rocking or screaming).<sup>1</sup>

#### 2: Difficulties with social communication

Individuals with an ASD have difficulties in understanding non-verbal language such as body language and tone of voice. Many patients with autism will try to avoid eye contact.<sup>3</sup> They may also have a literal understanding of the spoken word. For example if someone said it was 'raining cats and dogs', they may expect to see cats and dogs falling from the sky.

As previously stated, some individuals with an ASD may have age-appropriate language skills. However, some may still not understand the give and take nature of conversations, and may wish to talk at length



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about their own interests.<sup>3</sup> Also, phenomena such as immediate echolalia (repetition of what has just been heard), delayed echolalia (repetition of something heard in the past) and abnormal variation in stress, pitch and rhythm of speech (prosody)<sup>8</sup> in some individuals may also add to communication difficulties. Others may not be able to speak, or have limited speech, but may understand everything that is said to them and use picture cards or sign language to communicate.<sup>3</sup>

### 3: Difficulties with social imagination

Social imagination allows us to 'understand and predict other people's behaviour, make sense of abstract ideas, and to imagine situations outside our immediate daily routine'.<sup>4</sup>

Individuals with an ASD find it difficult to imagine other people's thoughts, feelings and actions or predict what will or may happen next. This can make it difficult for them to manage in new or unfamiliar situations. Children find it hard to engage in imaginative play and although they may appear to enjoy some imaginative play, it may be repetitive.<sup>3</sup>

In addition to the three main areas of difficulty, individuals with autism may also have:

#### a) A need for routine

The world may seem unpredictable and may be confusing to someone with ASD, and due to this, an individual with an ASD may prefer to have a fixed daily routine so that they know what is going to happen next. An individual with an ASD may not like their routine to suddenly be disrupted but may be able to cope with the idea of change if they are prepared for it in advance.<sup>3</sup>

#### b) Sensory sensitivity

An individual with an ASD may be over sensitive (hypersensitive) or under sensitive (hyposensitive) in one or more of the five senses (sight, sound, smell, touch and taste).

#### c) Special interests

Many individuals with autism have intense special interests which may be life long or may change over time.<sup>3</sup>

#### d) Learning disabilities

Some individuals may have learning disabilities which may be mild or may mean that the individual requires a lifetime of support.<sup>3</sup> Cognitive impairment is estimated to be evident in 70% of people with autism and is severe in 40%.<sup>9</sup> Individuals with Asperger syndrome usually have above-average intelligence and some may be highly

skilled in specific areas. However, only an estimated one in every 200 children are exceptionally skilled and these individuals are called 'autistic savants'.<sup>2</sup>

#### e) Other medical considerations

Dental care professionals (DCPs) need to be aware that other conditions are also sometimes associated with autism. These include Attention Deficit Hyperactivity Disorder (ADHD), and difficulties such as dyslexia and dyspraxia.<sup>3</sup> In addition, seizures are common in individuals with an ASD, with approximately 25-30% of adolescents with ASD having had two or more reported epileptic seizures.<sup>1,8</sup> These individuals may be taking medications which may cause oral manifestations.

### IMPROVING THE DENTAL EXPERIENCE

There are certain steps that the DCP can take to improve the dental experience of children with autism or Asperger syndrome.

#### Prior to the dental appointment

It may be helpful to implement the following strategies prior to the first dental appointment:

- Gain as much knowledge about the child as you can. If a parent or carer fills in a questionnaire it will give the dental team



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prior knowledge of any specific issues.<sup>3</sup> (A dental questionnaire can be downloaded from the National Autistic Society website)

- It may be helpful for the child to have a visit prior to the dental appointment in order to meet the team and familiarise themselves with the surroundings<sup>1</sup>
- A box of information could be given to the child which may contain photos of the team and dental items such as gloves and a plastic mirror<sup>5</sup>
- Try to make the appointment at the beginning of a session and book plenty of time to reduce the chances of the dentist running late and so that they are not rushed<sup>3</sup>
- Encourage the parent or carer to use some basic story books to familiarise the child with a dental visit.<sup>3</sup>

**During the dental appointment**

It may be helpful to implement the following strategies during the dental appointment:

- Consider using visual prompts so that the child knows what is going to happen during the appointment
- Help the individual realise that there is a time limit to the appointment (you can use timers to break the appointment down into parts)
- Speak clearly and remember that an individual with an ASD may have a literal understanding of the spoken language so make sure you are careful what you say (for example if you tell them this will only hurt for one minute they will expect the pain to last for one minute)
- Making eye contact may be uncomfortable for an individual with an ASD
- Consider the possibility of sensory issues. For example the dental light shining in the eyes of an individual with an ASD may be extremely distressing as may certain smells, the taste of the mouth rinse, the noise of the dental equipment, touch, or even the colour of your uniform
- The use of protective glasses with dark lenses, plain water instead of mouthrinse, and prior warning to the patient of what smell/taste/noise to expect may help
- Taking note of the pre-visit questionnaire may also highlight some of these potential problems and therefore enable help the team to reduce them accordingly.<sup>1,3</sup>

**Being aware**

The increasing prevalence of children being diagnosed with an ASD means that a DCP is likely to have individuals with an ASD attending the dental surgery. DCPs have a responsibility to ensure that these individuals



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are not disadvantaged when compared to a non-disabled person accessing a dental service.

Being aware of the potential areas of difficulty that an individual with an ASD may experience, and having strategies to

help overcome some of these difficulties, may improve the dental experience of these individuals.

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