Self Injurious behaviour

This document provides an overview of self-injurious behaviour and possible causes and interventions.

Self-injury can be one of the most distressing and difficult behaviours that parents, carers, family members and people with autism spectrum disorders (ASDs) themselves may be faced with. Often, the causes for these behaviours are complex and the level of risk to the individual's safety and well-being can be high. Usual behavioural intervention approaches are not always appropriate; it is generally important to get professional help to deal with these issues.

What is self-injurious behaviour?

The term 'self-injurious behaviour' refers to any activity in which an individual inflicts harm or injury to him or herself. Sometimes referred to as self-harming behaviour, self-injury can take many different forms, including:

- head banging (on floors, walls or other surfaces)
- hand or arm biting
- hair pulling
- eye gouging
- face or head slapping
- skin picking, scratching or pinching
- forceful head shaking.

Individuals with an ASD who have complex needs and who have concurrent learning disabilities are more likely to engage in severe self-injurious behaviours (Howlin, 1998). However, people across the spectrum and of all ages may engage in self-injurious behaviours at some point. Individuals who engaged in self-injurious behaviours as children may return to these as adults during times of stress, illness or change.

Possible causes of self-injurious behaviour

The reasons a person engages in self-injurious behaviours can be wide and varied, and will often involve a complex interaction between multiple factors. Head banging that may have started as a form of sensory stimulation may develop into a way to avoid demands. Head hitting that was initially a response to earache may develop into a way to have wants or needs met. The following are some possible causes that should be considered when thinking about self-injurious behaviour:

Medical or dental problems

The first, and perhaps most important, consideration when thinking about self-injurious behaviour, is to explore and rule out possible medical or dental problems that the individual may be experiencing. Individuals with an ASD may have difficulty communicating to others that something is wrong physically and particular self-injurious behaviours (such as ear slapping or head banging) may be their way of coping with pain or communicating discomfort. Here are some examples of medical and dental problems which may be expressed through self-injurious behaviour:

- illness (eg: colds, flu or infections such as sinus, ear or urinary tract infections)
- pain (eg: earache, headache, toothache, pre-menstrual tension)
- seizure activity, as in some types of epilepsy
- general loss of well-being (eg: constipation, digestion problems, skin conditions)
- research has also suggested that there may be a connection between types of self-injury and tic disorders and compulsions. High stress levels are believed to increase the frequency of these uncontrolled movements (Clements and Zarkowska, 2000).

Neuro-chemical theories

Researchers have also suggested there may be a link between self-injurious behaviours and particular neuro-chemical systems as outlined below:

- **Endogenous opioid system**
  Research has shown that some individuals with an ASD have elevated beta-endorphin levels which increase an individuals pain threshold and may therefore contribute to the development of self-injurious behaviours.
  It has also been suggested that self-injury can cause a release of opiates that produce a pleasant, even euphoric effect, which serve to reinforce the behaviour.

- **Serotonin**
  Researchers have suggested that elevated blood serotonin levels observed in some people with an ASD may be linked to behavioural difficulties such as self-injury (Gillberg and Cole, 1992).

- **Dopamine**
  Studies of individuals with Lesch-Nyhan syndrome (a hereditary condition characterized by self-injurious behaviour such as lip and finger biting) have revealed an imbalance of the dopaminergic mechanisms in the brain, which researchers have suggested may play a role in the development of self-injurious behaviours.

Sensory stimulation (to gain or reduce input)
Linked to the opioid theories discussed above, self-injurious behaviour may be an attempt to gain sensory input (particularly if an individual has a higher tolerance to pain due to elevated beta-endorphin levels) or conversely to cope with sensory overload (ie: head banging may help block out unpleasant or distressing auditory stimuli such as a dog barking or a lawnmower).

Developmental stages
Some self-injurious behaviour may be persisting remnants of earlier motor behaviours which occur during particular developmental periods (eg: hand mouthing which may continue beyond infancy).

Communication and learned behaviour
Many self-injurious behaviours occur in individuals who have no other functional way of communicating their needs, wants and feelings. An individual who bangs their head on a hard surface will get a very quick response from other people, whether that is for attention, a preferred object or activity, or to reduce demands being placed on them.

For another individual, head slapping may be a way of communicating frustration; others may find hand biting helps them cope with anxiety or excitement. For others, skin picking or eye gouging may be a response to lack of stimulation or boredom.

The individual learns, by observing the responses of others, that self-injurious behaviour can be a very powerful way of controlling the environment. It is in this way that self-injurious behaviour (eg head slapping) which was initially a response to physical pain or discomfort eventually becomes a way of avoiding an undesired situation (eg: turning the television off).

Repetitive behaviour
Repetitive behaviours, obsessions and routines are inherent features of ASD, and some forms of self-injury may be expressions of this feature.

Mental health issues
Some self-injurious behaviour may be indicative of underlying mental health issues such as depression or anxiety, particularly in individuals with high-functioning autism or Asperger syndrome.

Strategies to address self-injurious behaviour

The following are some general ideas on how to prevent and respond to self-injurious behaviours. If the individual is engaging in serious self-injurious behaviour, it is strongly recommended that you seek professional assistance.

Preventative strategies

What to do on a day-to-day basis to prevent self-injurious behaviour.

Rule out medical and dental causes

Arrange an appointment with the individual's GP/MD to discuss the issue and to obtain a referral to a specialist if required. Bringing along notes about when the behaviour occurs (ie what time of day and in which situations), how often it occurs, when it first started, and how long it lasts will assist the GP/MD in determining whether there may be a physical cause for the behaviour.

Think about the function of the behaviour

Develop a clear understanding of the functions of the behaviour for the individual. For some people, the self-injurious behaviour may serve a sensory function (ie by increasing or reducing stimulation), for others the behaviour may be a response to some form of physical pain. As mentioned previously, the functions of self-injurious behaviour may be quite complex and it can be important to get specialist advice in these instances.

Develop communication skills

Teach the individual alternative, more appropriate ways of communicating their wants, needs and physical pain or discomfort. Picture symbols can be very effective for people with an ASD, as they can be used in a broad range of situations and are particularly useful for indicating physical pain or illness.

Increase structure and routine

Establish a clear daily routine for the individual to increase predictability and thereby reduce anxiety. Try to build a range of activities into the individual’s routine to minimize boredom and restrict opportunities for the individual to engage in self-injurious behaviour. Make plans for difficult times of the day. Increase structure and provide additional supervision and support to the person during these periods or activities.

Provide sensory opportunities

If the individual is engaging in self-injurious behaviour for sensory stimulation, try to find alternative activities that provide them with a similar sensory experience and build these activities into the individuals routine. Jumping on a trampoline or swinging on a swing may provide needed stimulation to the vestibular system (that head shaking or slapping may have previously provided). Providing the individual with a bum bag of edible or safe objects to chew on that provide different sensory experiences such as gum, carrots, raw pasta or sultanas may reduce the need for hand or arm biting.

Physical exercise

Research suggests that regular aerobic exercise not only significantly improves emotional and physical well-being, but also can reduce the occurrence of self-injurious and aggressive behaviours (Rosenthal-Malek & Mitchell, 1997). Aerobic exercise can include activities like running, swimming, cycling, jumping on a trampoline, dancing, and aerobics and preferably needs to occur at least three times per week. Try to think about the individuals interests and choose activities that can be built into the persons weekly routine. In some instances it may be important to get specialist medical advice or support from a physical trainer before commencing a new exercise programme.

Reward appropriate behaviours

Make a point of rewarding appropriate behaviours and periods when the individual is not engaging in self-injurious behaviour throughout the day. This will help the person learn that other, more appropriate behaviours bring positive outcomes thereby increasing the frequency of these behaviours as opposed to self-injurious behaviours. Rewards can take the form of verbal praise and attention, preferred activities, toys, tokens or sometimes small amounts of favourite foods or drinks.

Ensure that you clearly name the behaviour that you are rewarding, to assist the individuals learning eg “Jane, that’s good waiting!” and ensure that rewards are provided immediately after the behaviour that you wish to encourage eg: You can spend 10 minutes on the computer now.

It should be noted that some individuals with an ASD do not enjoy social attention. In these circumstances verbal praise can cause distress and actually stop the individual engaging in the desired behaviour in the future.

Reactive strategies

What to do when the behaviour is occurring:

Respond quickly to ensure safety

It is essential to intervene early and respond quickly to incidents of self-injury. Even if the behaviour serves the function of gaining attention from others, it is never appropriate to ignore severe self-injurious behaviour. Appropriate responses will vary according to the behaviour of concern, but the following are some general guidelines.

- Try to keep responses to incidents of self-injurious behaviour low key, by limiting verbal comments, facial expressions and other displays of emotion, as these may inadvertently reinforce the behaviour. Try to speak calmly and clearly and keep facial expressions neutral.
- Remove the trigger by reducing demands. If the individual is finding it difficult to cope with demands being placed on them (it may be that the task is too difficult or that they are unable to complete the activity at that time), cut back on demands being placed on them or stop the activity entirely. Come back to the activity again later when the person is feeling calmer.

- Remove or reduce unpleasant sensory input (eg sounds, smells or sights).
- Provide relief for physical discomfort (eg, pain killers if the individual has an infection).
  Please note: it is important when using any of these strategies that the individual is also provided with opportunities to develop skills to communicate their needs more appropriately and to self-regulate stress and anxiety levels.
- Try to gain the individuals attention by saying the persons name and providing a simple instruction regarding what they need to do instead of the self-injurious behaviour eg 'David, hands down'. Again, it is important to keep responses to these behaviours to a minimum by limiting facial expressions and keeping a neutral and steady tone of voice. Use visual cues such as picture symbols to back up instructions.
- Re-direct the individual immediately to another activity that is incompatible with the self-injury (ie an activity that requires both hands) and provide praise and reinforcement for the first occurrence of appropriate behaviour eg David, thats excellent playing with your train.
- Light physical guidance may be provided if the individual is experiencing difficulties stopping the behaviour eg as in example above, using as little force as possible, gently guide the persons hand away from head. Immediately try to redirect attention to another activity (as described above) and be prepared to provide physical guidance again if the individual attempts to re-commence self-injurious behaviour. This approach must be used with extreme caution as it may escalate the behaviour or cause the individual to target others.
- Placing a barrier between the individual and the object that is causing harm may be another option. Some examples are as follows:
- Placing a barrier between the individual and the object that is causing harm may be an option. Some examples are as follows:
    - A pillow or cushion can be placed between the individuals head and their hand in the case of head slapping.
    - In the case of hand or arm biting, provide an alternative object to bite down on.
    - In the case of head banging on a hard surface, have a cushion or pillow ready to place between the surface and the individuals head. It is also possible to get removable padding that is placed temporarily on the floors or walls to minimise injury.

Call for help

In extreme circumstances or emergencies, contact 999/911 for assistance.

Physical restraints

Some self-injurious behaviour can place the individual at serious risk of harm. In these instances, it may be appropriate to explore the use of physical restraints such as arm splints or helmets to protect the individual against injury. Clements and Zarkowska (2001) suggest that physical restraints may be easier to fade out (ie: reduce reliance on) than restraint provided by another person (ie: physically holding the person to prevent self-injury), so in some respects may be the more appropriate option.

However, physical restraints are still very restrictive and should always be used under the guidance of a specialist to ensure they are used safely and appropriately.
Aside from serious safety and ethical concerns if used incorrectly, in some instances restraints can actually increase the occurrence of self-injurious behaviour (Howlin, 1998). Also, physical restraints do not actually address the cause of the behaviour, so it is essential that they are never used in isolation without teaching the individual new skills which address the function of the behaviour.

Medication

There is evidence to suggest that particular medications may be effective in reducing the occurrence of self-injurious behaviour for some individuals. As with physical restraints, medication should be seen as a last resort approach to management and again, should never be used without teaching new skills.

In summary:

- rule out medical or dental causes for the behaviour
- think about the function of the behaviour for the individual. Keeping a record of behaviours can help with this.
- assist the individual to develop alternative, more appropriate ways of communicating wants, needs, feelings and physical discomfort
- increase structure and routine in the individuals life and ensure the person has access to a range of stimulating activities (including sensory opportunities) throughout the day
- provide frequent encouragement to the individual for engaging in appropriate behaviour throughout the day and also for periods in which they did not engage in the self-injurious behaviour
- respond quickly and consistently to incidents of self-injurious behaviour as they occur, by interrupting the behaviour (using light physical guidance or a physical barrier if necessary) and redirecting the individuals attention to another activity
- in extreme circumstances or emergencies call 999/911 for assistance
- seek professional guidance for any self-injurious behaviour which is difficult to manage or resistant to intervention or any behaviour which places the individual at risk of harm.

Where and how to get extra help

Specialist support

Arrange an appointment with your family GP/MD and request a referral to a specialist with knowledge of ASDs and behavioural issues (eg: a clinical psychologist, psychiatrist or behaviour support team if there is one operating in your area).

It can be helpful to arrange an appointment with your GP/MD to *specifically* discuss behavioural concerns and to bring written information about the self-injurious behaviour. Clearly communicating your concerns to the GP/MD regarding your child's or relatives self-injurious behaviours is important in ensuring that an appropriate referral is made.

I freely admit this is 'nicked' from the National Autism Society's website and can be found at: http://www.autism.org.uk/living-with-autism/understanding-behaviour/challenging-behaviour/self-injurious-behaviour.aspx

So all credit goes to them for this useful article!