A sensory based approach to occupational therapy

The Autism Diagnostic Research Centre (ADRC) in Southampton has been providing a diagnostic and assessment service for autistic children and young people on the Isle of Wight since December 2011. ADRC is also a Qualified Provider for adult assessments in Oxfordshire and Wiltshire.

The Sensory Profile Checklist- Revised (SPCR), which asks parents about the sensory issues that their children have, is routinely included in the ADRC diagnostic assessment. In turn this identifies the need for some additional intervention that would enable parents, schools and commissioners to work together to improve the sensory experiences of children and enhance their ability to access education.

The project

In early 2015 ADRC was commissioned to conduct a six-month pilot sensory integration project. The project had two aims:

- provide occupational therapy sessions for children and deliver training to school staff to support this
- explore whether a sensory based approach to occupational therapy was beneficial to autistic children and their teaching/learning support staff.

Method

ADRC adopts a creative and flexible approach to staffing and resources and so we seconded Louisa Wray, a specialist occupational therapist (OT) with post-graduate sensory integration training, from Treloar School and College. ADRC also recruited Samantha Williams, an OT assistant, to complement the work of the OT by carrying out a literature review and helping with the writing-up of the final report, both of which were essential for the success of the project and to inform commissioners for the future.
The project consisted of three aspects, the first of which was to provide training in sensory processing in autism for school staff. Ten training sessions were offered to all schools across six different venues on the Isle of Wight:

- training was attended by two hundred and three people, including teachers, teaching assistants and support staff.
- one hundred and fifty of the attendees were from secondary schools (two from a special needs secondary school)
- fifty-three attendees were from primary schools (seven from a special needs primary school).

The second aspect of the project was to provide sensory processing in autism training for parents of diagnosed children. This was delivered as part of a parent day with a multi-disciplinary programme covering issues including sensory difficulties, behaviour and education; thirteen parents attended.

For the third aspect of the project seven children were identified as requiring more targeted one-to-one intervention, focussed primarily within education. This work with children with sensory processing difficulties was aimed at enabling them to develop skills and increase their independence within all aspects of their life.

Outcomes

Overall the feedback from the school and parent training sessions suggests the project was positively received. Some of the feedback indicated that parents would benefit from more training regarding sensory issues.

“The sensory integration session was very useful in terms of identifying behaviour and reasons for it”.

Furthermore the training appears to have had a positive impact on the attitudes and understanding of school staff. Staff appeared to have a better understanding of autism and sensory issues, resulting in improvements in how they worked with the children. Understanding the arousal levels of autistic children and how they can impact on their ability to learn, helped staff provide optimum environments for learning.

In terms of the one-to-one intervention, although results varied between individuals some improvements were observed even in the few months the programs ran for. For example the case study featured below reports that there were no known instances of challenging behaviour after one-to-one intervention.

Future areas

Although this was a very small scale project, results would suggest that providing an OT service with a sensory based approach via parent training and one to one intervention with children can result in long-term, sustainable benefits for both children and their parents.
It can have a positive impact in terms of the child’s ability to manage at school and access the full curriculum, and potentially reduce the occurrence of behaviour that challenges, school avoidance and in some cases, exclusion from school. Up-skilling school staff through sensory processing in autism training can have a positive impact, not just on school staff and the children who receive one to one intervention but in terms of encouraging schools to be more ‘autism friendly’.

The financial costs of providing a similar service can be relatively low and as such make it sustainable and replicable in a wide range of educational settings, particularly at a time when funds are limited but demands for support are rising.

**Case study**

HP was verbal but had limited vocabulary usually only using single words, but occasionally stringing together a few words to create a phrase. He responded to simple spoken language.

**Observed behaviours:**

- extremely fidgety in his seat, sitting on his feet and occasionally rolling on to the floor hands first
- easily distractible
- pushed out towards another child moving near him and appearing anxious
- when provided with a large piece of blue tac he pulled and squeezed it and was able to sit and join circle time activity
- able to carry out simple tasks which involved movement and which were familiar and routine
- reports that HP showed considerable distress when due to have his hair cut
- distress when noises occurred e.g. the vacuum cleaner and noises from other students.

**Sensory interpretation of behaviours:**

- HP appeared to be sensory seeking in terms of proprioception input whereby he was under-responsive. He therefore possibly felt calmer when engaged in activities which gave him a better sense of where his body is in space.
- HP possibly has a tactile sensitivity, shown by him pushing students near him away, disliking his hair being cut and a dislike for messy activities.
- HP could also have a sensitivity to auditory and visual stimuli, as he was very distractible and became distressed when non-threatening auditory stimulus occurred.

**Intervention:**

- All class staff had attended the Introduction to Sensory Processing in Autism training.
- To address HP’s tactile sensitivity staff were already using a graded desensitisation approach to build up trust with HP. They were beginning to introduce tactile sensations to his day, along with Social Stories, around particular issues e.g. hair cutting. HP was also offered ear defenders, which he accepted, when there was an anticipation of noises that he might be fearful of.
The OT was keen to use HP’s strengths to incorporate activities as part of a sensory diet as well as recommending different seating for class, and adaptations to activities.

The method of outcome measure used for HP was behaviour monitoring pre and post intervention.

Findings:

HP had no reported incidents of behaviour after the OT visited him. It is unlikely that behaviours completely resolved as a result of the OT intervention; however the training and recommendations given to staff may have supported them. It may have been possible that staff had not accurately recorded behaviours during the period following the OT’s first visit.
Proprioception is a person’s ability to sense where their body is in space without compensating by looking. Difficulties in this area result in coordination difficulties and people can have a feeling of not being grounded. Proprioception sensory input tends to have a calming, grounding effect on people with an impairment in this area.