

OCCUPATIONAL THERAPY



4/4/2017

Case Studies

As Occupational Therapists, we never look at the person as an isolated being. We are trained to look at the person, the actual task that they need to perform as well as the context or environment in which they need to perform this task. For this reason, we also need to include how in modifying the environment or adapting a task, we have enabled our pupils to increase their independence or reach their targets. Two further case studies have been included – one outlining a successful block of sensory strategies and exploration and another following a block for improvement of fine motor and writing skills.

1. ADAPTATIONS AND EQUIPMENT

I refer to MF and KK in Class 14. In January 2014, their moving and handling plans reveal that they were completely dependent on an adult for toileting as they needed to be hoisted on to a changing bed and changed. When the Class team discussed with the OT that these pupils were ready to attempt toileting, the challenge arose as to how they would be able to safely get onto and off the toilet from their wheelchairs as they are not ambulant pupils.

The OT issued them with a Cricket 2, which is a transfer device that can safely transfer pupils from their Wheelchair to another seated position. This was demonstrated to the class team and they have successfully been using the Cricket for transfer for over 3 months. This shows how the use of an adaptive device had enable the pupils to gain a semblance of independence in toileting. The same device is used to transfer MF into the transfer chair that she uses to access the swimming pool.



In a different case, the team of Class 32 reported that a pupil's behaviours – KC - were escalating and he found it too challenging to sit and engage in a lesson or therapy session. The OT asked the team to fill in a Sensory Profile and after it was scored and interpreted, the profile showed that KC has an under-responsive vestibular and proprioceptive system and that is why he constantly sought out movement. OT deployed a ball chair and engaged the support of the behaviour team to help him accept and tolerate the chair. It has now been reported and recorded that KC is able to sit for over 30 minutes at a time and can sit during a meal. In addition, KC was issued a chewy tube that was to help him regulate his tactile system. The class team report that he now uses his chewy to help him when he feels anxious, instead of biting his shirt as he was doing previously. This pupil has gone on to win the Jack Petchey Award which is awarded to pupils who have made exceptional progress. This shows how making a minor adjustment to the environment has assisted a pupil in achieving his outcomes.



2. THERAPEUTIC INTERVENTIONS

Sensory Strategies



Sensory Processing is an approach embraced by the OT's in this school. In keeping with the guidelines from the Royal College of Occupational Therapists, sensory processing is embedded into the daily routine of the pupil's day in the form of a sensory diet instead of the time-heavy Ayer's Sensory Integration Therapy Approach. In some instances, OT will provide a block of sensory exploration in order to be able to hand over the strategies to the class team for when the block of therapy has reached completion. The first case study is following a block of therapy delivered in the Spring Term.

Case study 1- ZM

ZM was first seen by the OT service in March 2016. The first encounter recorded on Behaviour Watch, describes ZM as,

“Required persistent encouragement to sit at table for art activity. Fleeting attention. Did not actively carry out art however engaged by watching staff member use glue, glitter and multiple colours. Sat at table for approximately 5 minutes. Spent most of class time outside pacing and eating plants. Held OTs hand yet kept head down looking at ground.”

In the months that followed this entry, a sensory profile was filled in, scored, interpreted and used to compile a Sensory Diet which was being carried out by the class team. They reported that ZM was happiest when being bounced on the ball and they noticed her seeking behaviours reduced noticeably after being given her input.

OT added ZM to her caseload and offered 4 x sensory exploration sessions in which she was encouraged to interact with the sensory apparatus first of all and then tolerate more than one apparatus. The OT

concluded the sessions with offering her an activity to engage with. In the final session, ZM was able to look at balls and throw them while on the swing and then in class engaged with 2 fine motor activities for up to 10 minutes. She looked up and made frequent eye contact with the OT.

The entry for the 5th sensory session is quoted below:

'While on the swing, ZM accepted tactile and light balls which she reached for and explored before throwing them on the floor. She was observed to look up and show interest in the bag that the OT was taking the balls from. Thereafter she accepted being bounced on the ball which she also tolerated for over three minutes. ZM was then taken back to class and engaged in two fine motor skills games with the total time interacting 5-10 minutes. She first was able to pull at least 5 pegs out of the peg board and then was able to post 4 out of the 8 muffins independently. She was observed to lift her head and arms up to reach for the muffins and make eye contact with the OT. The TA reported that she does not usually engage for that long a period of time or make such good eye contact'.

Case study 2- HN

Observations and discussions were used as forms of assessments.

HN was observed in the playground on the roundabout and on the flying saucer swing. HN appeared to not be aware of his surroundings during his time on the roundabout, however whilst on the flying saucer swing his posture improved, he began laughing and demonstrated enjoyment of the vestibular input. HN's teacher Nick reported that HN always enjoys swinging and rocking, and seeks these kinds of movements when in the classroom. He was observed to have low truncal tone and poor gross motor skills.

HN was observed taking part in an Occupational Therapy sensory exploration group. He required both verbal and physical prompting to engage in sensory activities. When sat on the small therapy ball, HN appeared to have increased arousal levels. HN began to bounce himself, demonstrating enjoyment and active seeking for this movement in order to increase his own arousal levels. Following this he required less prompting to engage in tasks. This also appeared to improve HN's posture when sat at the table. HN also demonstrated enjoyment and increased engagement when sat next to a small disco ball which surrounded him with moving coloured lights.

The following GAS goal was set:

- +2 HN to be able choose from and complete a preferred activity with adult support for 5 minutes following sensory strategies in 6 weeks.
- +1 HN to be able choose from and complete a preferred activity with adult support for 4 minutes following sensory strategies in 6 weeks
- 0 HN to be able choose from and complete a preferred activity with adult support for 3 minutes following sensory strategies in 6 weeks (review)
- 1 HN to be able choose from and complete a preferred activity with adult support for 2 minutes following sensory strategies in 6 weeks (baseline)

-2 HN to be able choose from and complete a preferred activity with adult support for up to 1 minute following sensory strategies in 6 weeks.

Intervention and equipment provided

HN was provided with a ball chair for the classroom, as well as a peanut ball so class can carry out sensory strategies with HN in the classroom.

HN was seen for a block of 6 week OT in his PE lesson with OT providing sensory strategies best suited from the assessment findings.

Examples of sensory strategies included:

OT lay HN in prone on therapy ball and bounced him continuously 20 times. OT continued this for 3 sets. Rocking back and forth on therapy ball- OT held HN at his pelvis and rocked slowly back and forth

OT swung HN on the swing forwards and backwards x 20 times, side to side x20 times and round in a circle x20 times.

Trampoline- OT held HN's hands whilst he bounced on the trampoline. This is something he could not do in the first two sessions and as his arousal improved during the sessions over the weeks, he was alert enough to bounce himself.

Outcomes

Following these strategies, HN became much more engaged and laughed during and following these strategies. After the 6 weeks he began to walk himself over to the sensory equipment and it appeared he knew what he was going to do and smiled beforehand. OT observed improvement in trunkal tone, both when he was sat on the swing and walking round following sensory strategies.

HN responded well to sensory input and this improved week on week. Class staff reported a difference in HN and after much negotiation they are now using sensory strategies in class before any task is required of HN. Following sensory strategies he appears more alert and his arousal levels are heightened visibly.

HN achieved his GAS goal in the 6 weeks

Fine Motor Skills

Assessment

Initial TVS hand function assessment

Beery VMI- This is a standardized assessment used to assess the extent to which a child can integrate their visual and motor abilities. These skills are important for fine motor skills development and are crucial for handwriting.

Through these assessments and classroom observation it was found that ZA had significant visual perception difficulties, falling within the 9th percentile for this, as well as difficulties with motor coordination where he fell within the first percentile. He also fell below average, in the 32nd percentile for visual motor integration. He used a supinate palmer grasp pencil grip for his preferred grip and required demonstration to complete any fine motor activity.

From the results of these assessments, OT set a GAS focusing on handwriting as this was something the class teacher wanted to develop for ZA.

GAS Goal

- +2 ZA to be able to maintain a static tripod grasp for 75 seconds
- +1 ZA to be able to maintain a static tripod grasp for 60 seconds
- 0 ZA to be able to maintain a static tripod grasp for 45 seconds
- 1 ZA to be able to maintain a static tripod grasp for 30 seconds
- 2. ZA to be able to maintain a static tripod grasp for 15 seconds

When this GAS goal was set, ZA required physical prompting to place a pencil in his hand using a tripod grasp and he was unable to maintain this grip for any more than 30 seconds before returning to a supinate palmer grasp.

Intervention

Programme



ZA was provided with a fine motor skills programme which was given to class staff to carry out daily with ZA. This included activities which targeted visual perception and motor co-ordination.

Equipment

ZA was provided with a pencil grip to assist with developing a tripod grasp.

6 week block of OT

ZA also had a block of 6 week OT which focused on developing his fine motor skills. Fine motor activities during these sessions included ones to develop his visual motor integration, visual perception and motor co-ordination. For example: copying patterns, using specific activities to develop a tripod grasp. Pre handwriting activities were also carried out, including pre- handwriting shapes, following lines, and copying letters.

Outcome

ZA is now using a static tripod grasp and has shown significant improvement with his fine motor skills. He has exceeded expectations and achieved his GAS goal in maintaining a tripod grasp. He now uses this grasp the whole time and is able to complete 7/9 of the pre handwriting shapes of which he could only complete 3/9 before. It is important these are established for handwriting. It has been recommended that ZA continues with his programme daily to develop these skills further and thus be ready for handwriting.