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NEUROPSYCHOLOGICAL ASSESSMENT

CONFIDENTIAL

NAME:	Tamsin COLLEY
D.O.B:	10-9-2002
MRN:	1494960
DATE OF ASSESSMENT:	6-5-2005
AGE AT ASSESSMENT:	2 years 7 months

Tamsin, a 2 year 7 month old girl who was diagnosed with a brain tumour in March 2004, underwent a developmental assessment on the 6th of May 2005.

BACKGROUND

Tamsin was born at 40 weeks gestation following an uncomplicated pregnancy. No concerns were indicated during the neonatal period. In terms of motor development Tamsin was reported to crawl at 6 months, sit unassisted at 8 months and pull to stand at 9 months. At around 12 months of age she was standing with support, however, some concerns were raised in relation to her balance and the quality of her gross motor movements, which were described as mildly ataxic. At 14 months Tamsin was treated for a right mastoiditis.

Following limited progress with motor development, Tamsin was seen by a Physiotherapist at 16 months at which point the possibility of a mild cerebral palsy was raised. A mild delay in language development was also indicated around this time, with Tamsin noted to have approximately 20 words in addition with some articulation problems.

Tamsin was subsequently referred to a paediatrician at around 17 months of age. On review a one-centimetre increase in head circumference was noted over a month following which a CT study was organised on the 25-3-2004. Results indicated a large posterior fossa mass compressing the fourth ventricle in association with secondary obstructive hydrocephalus involving moderate dilation of the third and lateral ventricles. Surgical resection of the posterior fossa pilocytic astrocytoma was undertaken on the 31-3-2004. Inpatient therapy was provided prior to discharge on the 15-4-2004. Regular MRI investigations indicate that there has been no tumour recurrence.

A regression in motor skills in addition with a severe truncal ataxia was reported post-surgically. Consequently, Tamsin has received ongoing Physiotherapy and Occupational Therapy with Joanne Miller (Physiotherapist, SCH) and Anna Prior (Occupational Therapist, SCH). Tamsin was reported to have displayed pleasing progress during these sessions, however, her motor skills were described as delayed for age when last assessed in June 2004. Specifically at 20 months of age Tamsin was noted to be unsteady when sitting and crawling. She was reported to be pulling to stand and standing with assistance. Ataxia was also noted in both upper limbs and was reported to affect the accuracy and timing of her reaching movement. She was reported to display a preference for her left hand.

A residual right fourth nerve palsy, resulting from surgery, has also been documented in ophthalmology reviews at SCH. Visual acuity has been reported to be intact

Speech Therapy has also been provided since June 2004 with Bronwyn Carrigg (Speech Pathologist, SCH). A report from January 2005 indicated a continuing severe articulation difficulty, caused by a motor movement disorder. As a result Tamsin's verbal expression was described as limited and her speech unclear. Specific areas of concern included a difficulty adding the end sounds of words and problems producing two syllable words. The timing, rate and rhythm of Tamsin's speech was also reported to be poor. In contrast her language comprehension and play skills were described as above average. Her expressive language system was also considered to be intact on the basis of her observed use of signs and gestures.

Tamsin first started at the POU Place Child Care Centre at approximately 12 months of age, attending for two days a week. She returned in August 2004 receiving funding support for most of the two days she attended. Reports indicate that Tamsin quickly settled back into the preschool setting, has appeared to enjoy her time there and participates to the best of her ability in all activities. Socially, she is noted to be responsive and aware of the other children but is somewhat limited in the extent of her interactions with the other children as the result of her motor and communication difficulties.

On current interview, Cathie Sherrington indicated that she has been pleased with the progress that Tamsin has made over the past few months, particularly in areas that have been targeted in therapy sessions. Cathie indicated that Tamsin has shown increasing independence within the home environment, however, noted that her self-help skills were limited as the result of her motor difficulties. In contrast, play skills were reported to be developing well, with Tamsin noted to engage in imaginative play. She was also reported to enjoy playing with puzzles and blocks. A good level of attention and task persistence was additionally indicated.

PRESENTATION

Tamsin presented as an enthusiastic and responsive young girl who was keen to interact with those around her. With assistance she sat at the small testing table and was easily engaged on all activities that were presented to her. She moved between tasks easily and relinquished toys when requested. She also displayed a good level of task persistence on all activities and continued to persevere on even the more difficult items. Her attention and concentration skills were remarkable and were sustained throughout the lengthy testing session.

ASSESSMENT

At the chronological age of **31** months, Tamsin achieved the following age equivalent levels on The Griffith's Mental Development Scales (0-8 yrs):

A) ***Locomotor Scale***
Age Level = 15 months
This scale is designed to assess the attainment of gross motor milestones and the purposeful use of gross motor ability.

This was an area of relative weakness for Tamsin. Given her difficulties with balance she requires support for the following activities: to kneel, to stand-alone and to take a few steps. She is not at the stage of walking independently.

B) ***Personal/Social Scale***
Age level = 38 months
This scale examines the child's social responsiveness to their environment, their self-help skills in eating and dressing as well as levels of socialisation.

As noted Tamsin appeared aware and interested in things happening around her. She was reported to actively assist with dressing and undressing and was observed to undo and do up large buttons. She was noted to use a spoon independently and to ask for specific items of food when eating. She demonstrated an understanding of body parts and responded to questions regarding her name, age and gender. Cooperative play skills were reported to be emerging within the preschool environment.

C) ***Hearing and Speech Scale***
Age level = 36 months
Responsiveness and active listening together with speech and language development are assessed in this scale.

Tamsin named 18/18 objects and 12/20 pictured objects. She responded accurately to questions about the use of certain objects, such as a chair, knife, pencil and key. She also named 8/10 primary colours. She typically produced one-word utterances and some two-word phrases to communicate. A couple of descriptive words (size and colour) and personal pronouns (including me and mine) were also noted.

Qualitatively, Tamsin's articulation was noted to be markedly reduced and she appeared to display a considerable degree of effort to produce the sounds within words. Nevertheless, it was possible to understand most of Tamsin's output.

D) ***Eye-Hand Co-ordination***
Age level = 32 months
This scale assesses fine motor ability and co-ordination such as reaching, grasping and manipulating small objects in addition with pencil use.

Tamsin built a tower of 7 bricks and made a train with 3 bricks. She copied a perpendicular line, a circle and a cross. She was noted to swap hands on drawing activities but appeared to perform somewhat better with her left hand. She also handled some scissors and attempted to cut a piece of paper.

E) ***Performance Scale***
Age level = 40 months
This scale assesses the child's ability to actively integrate fine motor skills and visual perceptual abilities to purposeful activity with objects.

Tamsin handled small boxes and blocks and, when requested, persisted well in packing them all away according to colour. She quickly completed 4 and 6 piece inset puzzles according to size and shape.

F) ***Practical Reasoning Scale***
Age level = 40 months
This scale assesses basic auditory attention span, simple reasoning skills and early mathematical concepts.

Tamsin accurately repeated three digits. She counted by rote to 8 and with one to one correspondence to four. She demonstrated an understanding of concepts such as size (big or little), height and length.

SUMMARY

Tamsin is a 2 year 7 month old girl (31 months) who was diagnosed and underwent surgical resection of a posterior fossa pilocytic astrocytoma (brain tumour) in March 2004 at 18 months of age. Ongoing issues have included gross and fine motor difficulties, including a severe truncal ataxia, a right fourth nerve palsy and a speech disturbance. Regular MRI investigations indicate that there has been no tumour recurrence.

On current developmental assessment, Tamsin presented as an enthusiastic, engaging and interactive young girl who displayed a strikingly strong level of attention and task persistence.

Tamsin's overall level of performance on formal tests was characterised by a significant degree of variation between different developmental areas. Specifically, Tamsin's practical reasoning functions and performance-based abilities were placed above age expectations and were in keeping with those of a 40 month-old child. Similarly despite significant articulation difficulties, her personal/social skills and speech and language abilities were age appropriate and rated at around the 36 to 38 month-old level. Eye-hand co-ordination was also within the average range, consistent with a 32-month-old child, whereas Tamsin's gross motor skills were significantly delayed and commensurate with a 15-month-old level.

In sum, Tamsin currently displays evidence of a specific and significant delay in gross motor development that is associated with a speech motor movement disorder that affects articulation and impacts on intelligibility. In contrast other developmental skills, that are likely to have been the focus of previous therapy sessions, such as a single word vocabulary, understanding of verbal concepts, fine motor manipulation and pencil skills appear to be progressing at an age appropriate level. Other early cognitive based skills, including practical reasoning and performance-based abilities, were strong, indicating that these have been developing well.

RECOMMENDATIONS

Tamsin will continue to receive Speech Pathology and Physiotherapy intervention services through SCH, which includes liaison with the childcare centre. Tamsin will also require ongoing support within the preschool setting to assist with her motor difficulties and to implement specific speech therapy strategies. An application for continued funding assistance would therefore be supported.

It is pleasing to see the progress that Tamsin has been making. It is, however, important to keep in mind the significance of the illness that occurred at a very young age in addition with the fact that Tamsin is still within the relatively early stages of development. Current literature indicates the importance of considering early illnesses and injuries suffered during childhood within the context of the differential rate of development. It will therefore be important to continue to closely monitor Tamsin's progress.

An occupational therapy review would be recommended in the coming year, to further investigate Tamsin's fine motor development and to provide input regarding her acquisition of pre-academic skills.

A review of Tamsin's cognitive development would also be recommended in approximately 2 years time, prior to her move into school.

I would be happy to provide any further information in regard to this report and can be contacted on 9382 1191.

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Clinical Neuropsychologist

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