

Lucy - A Child Case Study

Lucy was only 5 when she was knocked over just yards from her home. She had just started in the reception class at school where she was a very sociable, helpful and well mannered little girl, meeting all her developmental milestones.

Lucy was rushed to the regional A & E department where she underwent a CT scan which highlighted frontal-lobe contusions. She remained in intensive care for 10 days. It emerged that she had a right-sided hemiparesis, where she had power but no co-ordination. She underwent rehabilitation in hospital and she was discharged home 4 months after the accident. She had limited follow up on an out-patient basis and no help in terms of integration back to school.

Assessment by Reach:

Reach was approached to provide an assessment two ½ years after the accident when Lucy was aged 7. She was now in Year 3 at school, had an educational statement and was receiving one-to-one support. She was starting to display significant problems in the neuropsychological area, specifically memory, behaviour, social skills and functional aspects. She had received a huge amount of support from her mother who only let Lucy out of her sight when at school.

Reach carried out a rehabilitation assessment comprising of an Occupational Therapy/functional assessment and an assessment for rehabilitation prediction. A neuro-psychological assessment had previously been carried out and it was not felt necessary to repeat it. Initially the neuro-psychological problems identified were:

- Cognitive, behavioural and emotional problems
- Visual memory
- Attention and concentration difficulties
- Executive skills – planning & organisation
- Anxiety management – particularly in social situations

She was also identified as having a number of functional difficulties:

- Her social skills were very immature which was having a knock-on effect in her ability to make and maintain friendships within the school environment.
- There was limited carry-over into the home environment where skills could have been rehearsed
- Poor social integration- inability to monitor her behaviour in social situations,
- A lack of self-care, requiring a great deal of support from her mother.
- Poor confidence levels which could have limited the benefit to be gained from a rehabilitation programme.

After assessment it was recommended that there be a 12 month rehabilitation programme on a 1:1 basis, followed by a 3 month period of reducing input.

Route to progress:

In essence the proposed rehabilitation programme covered the following broad aims:

- To increase Lucy's quality of life and enable her to experience a greater variety of environments in which to adapt her social skills.

- To raise levels of independence thus optimising her development.
- To maximise her educational ability by providing a link between school and home, encouraging a common use of skills.
- To maximise social integration with her peer group.

1. Rehabilitation took place in Lucy's home, school and social environment to provide continuity, structure and consistency of approach which would reduce maladaptive behaviours. As is often the case with severely brain injured clients a structured timetable was essential to Lucy's ability to cope.
2. To help with her organising and planning skills Lucy was encouraged to pick a task which she would carry out during the week and when it would occur. Initially she was offered a very limited choice as she found choosing very difficult; as time went on she was offered a larger number of choices.
3. The initial focus of the programme was strengthening memory strategies. We introduced a calendar which she was encouraged to use as a memory aid and helped planning and organising. All activities had to be age appropriate and perceived as being fun or motivation would drop and the outcome be poorer.
4. Attention and concentration on a task were found to be low during the assessment. These were worked on using games and computer games and aimed at improving concentration levels and reading.
5. To improve her social skills the rehab assistant initially spent a great deal of time with Lucy in the school playground

encouraging her to interact with her peers, something she had previously avoided. They then looked at body language, cues, sharing and friendship development.

6. To improve social integration Lucy was introduced to a variety of leisure activities such as horse riding and Brownies. These had multiple benefits as they increased her confidence, her physical activity (and weight control) besides increasing her independence in social settings.
7. Self-care programme – this was to look at helping take on more responsibility for getting dressed and taking care of her room.
8. Educational support – in conjunction with the school a number of educational games were introduced at home to maximise Lucy's ability in the classroom.

Outcome at the 24 week review:

- Memory – Lucy was using her weekly planner as a prompt to organising and also to help with visual memory. These visual memory improvements then had a knock on to her performance at school.
- Attention and concentration – this had greatly improved, particularly her ability to concentrate when reading. However it was seen that she tired in the afternoons so the school rearranged her time table to focus on numeracy and literacy in the morning.
- Executive skills – Lucy was learning to make choices and was growing in confidence in the classroom and social settings.
- Self-care – attending Brownies encouraged Lucy to become more able to dress herself, and swimming lessons encouraged her to do it more quickly.

At this time Lucy had maximised her skills in terms of functional and neuro-psychological deficits, however there was now the need to maintain and build upon this level by ensuring that the strategies instilled were utilised.

The future:

Lucy made measurable improvements in terms of her psychological and functional skills during the course of the programme however this will be only the first intensive period of rehabilitation. Research suggests that there should be further periods of rehab at the ages of 11, 14 and 18 which coincide with major changes in a child's brain development. These will enable Lucy to reach her full potential but it is recommended that a watching brief is provided between these further intensive periods of rehabilitation.

The moral of the story:

Without the Reach rehabilitation programme Lucy would have become increasingly dependant on her mother in terms of personal care. Her social skills would have been poor with minimal social interaction with her peers and her isolation would have increased. Although she still requires a great deal of care from her family she is capable of much more independent action with supervision rather than direct support. She is now better equipped to transfer her educational learning out into her community and visa versa. Lucy is now enjoying a better quality of life. She has increased educational ability due to her utilisation of memory and attention strategies and she is maximising her strengths for a positive future.

This is intended to be the first of a course of interventions each of which will reinforce her learned strategies and the introduction of new ones to cope with her changing world.