



# The Lee Medical Practice Paediatric Physiotherapy Service



## Changes in interests following physiotherapy treatment for children with Dyspraxia

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### **AIM:**

The aim of this study was to consider whether the interests of children, who had dyspraxia, changed following physiotherapy treatment

### **INTRODUCTION:**

There has been some information reported on the specific interests that children with dyspraxia have and whether these change following treatment. Lee and Smith (1998 and 2000) reported that children showed more interest and were keener to attempt new activities following a course of 8 week physiotherapy treatment. Sports and activities that the children enjoyed were listed. However, there is little other literature that specifically considers the likes at school, the child's hobbies at home and outside activities and how these alter post treatment.

This study compared the likes at school, hobbies and outside activities prior to treatment and how these altered immediately following treatment and one year later.

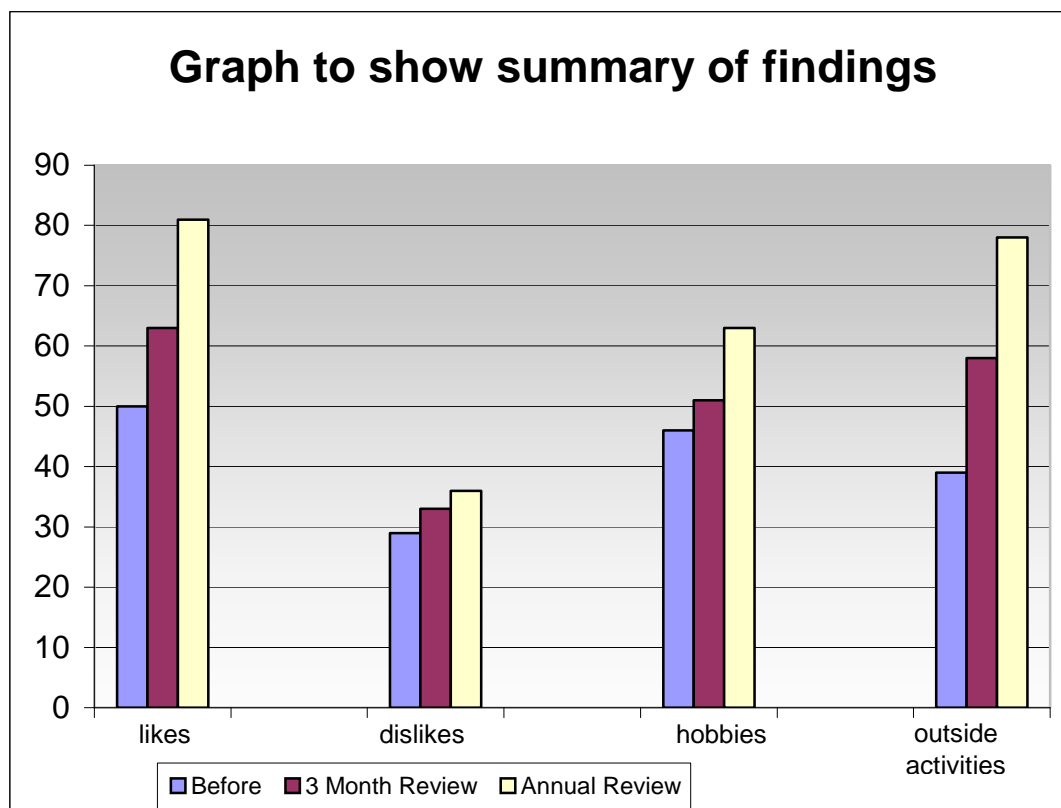
### **METHODOLOGY:**

**Subjects:** Twenty children who were referred to the physiotherapy department with a diagnosis of dyspraxia between January 2001 and June 2003 were included in the study. All these children had completed an 8 week block of once a week physiotherapy treatment, a review 3 months following treatment, and another review one year later.

**Procedure:** The children were asked to complete a questionnaire at the following times: prior to treatment, the review three months following treatment and at the annual review. The questionnaires specifically included questions related to the child's likes and dislikes at school, home hobbies and outside activities. The questionnaires were either returned when the children attended the assessments or they were returned to the practice, using a stamped addressed envelope.

### **RESULTS:**

	Before				3 Month Review				Annual Review			
Child	Likes	Dislikes	Hobbies	Outside	Likes	Dislikes	Hobbies	Outside	Likes	Dislikes	Hobbies	Outside
1	0	1	1	2	1	1	2	3	1	1	2	4
2	6	0	7	3	3	4	4	4	5	2	6	4
3	3	0	1	3	3	0	2	4	2	2	3	4
4	3	3	1	2	2	2	2	1	4	4	4	3
5	2	3	2	2	2	1	3	3	2	1	5	5
6	3	2	2	2	5	4	5	4	5	4	3	5
7	1	1	1	1	1	0	1	3	3	0	2	3
8	4	1	3	3	2	1	2	2	5	4	3	5
9	2	0	4	3	4	0	1	3	4	2	4	4
10	1	1	2	0	2	2	2	5	4	3	2	5
11	4	2	3	1	1	1	1	3	5	3	3	5
12	2	1	2	1	4	1	4	2	9	1	3	4
13	3	3	2	2	5	3	2	3	6	1	3	3
14	3	1	2	2	4	2	1	5	3	2	2	5
15	4	2	4	4	8	3	8	4	8	2	6	5
16	1	0	3	2	3	0	1	3	2	0	2	3
17	5	5	2	3	5	5	2	4	3	1	1	4
18	1	0	2	1	5	1	3	0	2	1	2	2
19	1	1	1	1	2	1	1	1	4	1	3	2
20	1	2	1	1	1	1	4	1	4	1	4	3
<b>Total</b>	<b>50</b>	<b>29</b>	<b>46</b>	<b>39</b>	<b>63</b>	<b>33</b>	<b>51</b>	<b>58</b>	<b>81</b>	<b>36</b>	<b>63</b>	<b>78</b>



#### **DISCUSSION:**

The results show that the likes, hobbies and outside activities had all increased and this was particularly evident from figures taken before treatment and at the annual review. This may well be accounted for by the fact that the children were reported to find games and sports at school easier, they were more willing to attempt new activities following treatment and had improved self-confidence and self-esteem. Similar findings related to improvement in self-esteem and the willingness to attempt more activities have been documented in the past (Addy, 1996: Lee & French, 1994: Lee & Smith, 1998 and 2002: Lee, Yoxall & Smith, 2003: Portwood, 1996 & 2000). However, these authors apart from the research carried out by Lee & Smith in 2002, only considered the immediate effects following treatment. Lee & Smith, (2002) confirmed that after 3 years, the children continued to improve with their skills, were still more willing to attempt new activities and that parents had reported that self-confidence had continued to improve. The results from this study would correlate with these findings and that a year following treatment their interests and hobbies continued to grow.

The authors had expected that the number of school subjects that the children disliked, would have reduced following treatment, however, this was not the case. Most children had reported initially a dislike to games, writing, Mathematics and English. Following treatment and at the annual review none of the children reported a dislike to games. However, a number of children did state a dislike to spelling, French, Science, Mathematics, tests, as well as writing and English. There may be a number of reasons attributing to these dislikes. Even though in many cases writing improves, many children with Dyspraxia continue to struggle with lengthy writing that subjects such as English and History require. Short-term memory often remains a difficulty which may be reflected in subjects such as with Mathematics, spellings and French. In addition, these children often continue to have organisational difficulties, a skill required for writing essays and Mathematics. Lee and Smith 2002, reported that three years following physiotherapy treatment, 36% of parents continued to have concerns about their children's academic work. This was seen, in particular with mathematics, spelling, reading, writing essays and short-term memory. These points may well be added reasons why the children continued to have dislikes for these subjects.

The number of likes of school subjects showed an increase of 62%. Most children were able to write at least 3 –4 likes and some even quoted 8 – 9 subjects. The list of their likes at school at the annual review included Games, PE, Art, I.T. CDT, Drama, Geography, Music, story time, reading and some stated that they now enjoyed Mathematics and Science which they had not initially. The authors were pleased that many of the children showed a wide range of interests at school and that so many now enjoyed sports. This would compare well with previous research where parents reported that their children were happy to participate in sports and P.E at school following treatment (Lee & Smith 1998 & 2002).

The authors were particularly pleased with the significant increase in number of outside activities reported at the annual review. This had seen a rise of 100%. The children stated a number of new activities such as fencing, football, swimming, judo and other martial arts, climbing, drama, dance, playing musical instruments, golf, cubs and beavers and horse riding. In addition, the increase in home hobbies rose by 37% at the annual review. The children had shown more interest in hobbies related to outside play or games involving other children than previously. Initially, many children had stated that their favourite hobby was playing on the computer, with Gameboys or game consuls. After treatment more children reported an interest in playing on their bicycles, playing football in the garden, playing on the trampoline and playing ball games as well as playing Warhammer and starting collections with friends.

#### **CONCLUSION:**

The results of this survey show that following physiotherapy treatment, children show more interest in hobbies, outside activities and have more likes at school. Although dislikes did not fall as had been expected, these in many cases were related to on going difficulties that the children had in the classroom. In addition, the results indicate the importance of encouraging children with Dyspraxia to have a wide range of interests. This will assist with promoting and strengthening their gross motor skills and in particular assist with maintaining their improved self-confidence and encouraging social skills.