



Lidcombe News

September 2008

Edition 32



As autumn begins to bite in the United Kingdom, Lidcombe News brings you the last newsletter of the year. This edition is dedicated to research that has been carried out in countries other than Australia and we have authors from Germany, the United States, and the Netherlands giving us a synopsis of their recent work. Tina Latterman tells us about the Randomised Controlled Trial she ran in Germany while Barry Guitar from the United States writes of the study he undertook with his colleague, Barbara Miller looking at “Long Term Outcome of the Lidcombe Program”. Then, from the Netherlands from Caroline Koedoot, Elly Stolk and Marie-Christine Franken, we have a description of a trial looking at the cost-effectiveness of the Lidcombe Program as compared to the Demands and Capacities Model, with some additional personal comments from Durdana Putker, a participating therapist. Of course we also have ‘Dear Sue’ and ‘Just Explain That Again’ but as ever we start with news of Link days and courses in the United Kingdom, and the latest workshops being offered in other European countries.



DATES FOR YOUR DIARY

Norwich is holding a Link day on **Tuesday, 7th October 2008, 9.30- 3.30** at **40, Upton Road**. Bring/buy your own lunch. Contact **Mary Kingston** for details, directions etc. on tel. **01603 508946**, or email: **kingstonamee@talk21.com** We will be looking at all the different leaflets we use so please bring yours along for discussion.

The Lidcombe Link Day for the **North West** is on **Tuesday 7th October: 1.00 for a 1.30** start. It will be held at Handforth Clinic, Wilmslow Road, Handforth, Wilmslow, Cheshire, SK9 3HL. We will be discussing tricky cases and a journal article. For further information, please email: **Louise.Tweedie@echeshire-**



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tr.nwest.nhs.uk or tel. 01625 661983

Contributions to Mary Kingston. Send your ideas and questions to: Speech and Language Therapy Department, 40, Upton Road, Norwich, Norfolk, England NR4 7PA Tel. 01603 508946 E-mail address: kingstnamee@talk21.com I can't promise to include everything and have to reserve the right to edit contributions as necessary. But I'll do my best!

York will be holding an all day Link Day on **Friday, February 6th 2009** organised by Ruth Edwards, and led by both Rosemarie Hayhow and Mary Kingston. There will be a charge of £20 (lunch not included). **For an application form contact:** Barbara Drake, Speech and Language Therapy Department, The Children's Centre, 70 Walker Street, Hull, HU3 2HB tel. 01482 617605. For further information on times and venue contact **Ruth Edwards** on the same telephone number.

COURSES AND EVENTS



The next workshop in **Scotland** will be held in Livingstone, near **Edinburgh**, on Thursday & Friday, **January 22nd & 23rd 2009**. It will be presented by Mary Kingston and Sally Wynne. For further details contact **Gillian Barnett** on tel. **07977 820451** or email gillian.barnett@fsmail.net

There will be a course in **Yorkshire** on Wednesday and Thursday, **February 4th & 5th 2009**, presented by Rosemarie Hayhow and Mary Kingston. It will be held at The Children's Centre, 70 Walker Street, **Hull**, HU3 2HE. **Cost £300** including lunch and course materials. Contact **Barbara Drake**, tel. **01482 617605** at the above address for an **application form**. **For further information** contact **Ruth Edwards** on the same telephone number.

The annual course in **London** led by Mary Kingston and Sally Wynne, will be held on Thursday and Friday, **March 5th & 6th 2009** at the Royal College of Speech and Language Therapists as usual. Contact **Sally Wynne** on robertsallywynne@boltblue.com for the flyer and booking form.

The **Oslo Speech and Language Therapists Union** is holding a workshop in **Norway** on Thursday, Friday and Saturday, **16th-18th April 2009**. It will take place at **Bredtvet Kompetansesenter**, in **Oslo**, presented by Mary Kingston and Rosemarie Hayhow. The cost, including all work materials is 4900 n.kr (Norwegian Kroner) ; for members of the Norwegian Speech and Language Union 4000n.kr. For details of how to apply, and further information if required, contact **Monica Hauge** on email: logopeden@gmail.com.

Cyprus is holding one, possibly two, workshops in June 2009. These will take place in **Larnaca** on Friday, Saturday and Sunday **June 19th -21st** and, if the demand is there, Monday, Tuesday, Wednesday, **June 22nd - 24th**. The

presenters are Rosemarie Hayhow and Mary Kingston. For more information and application details contact **Niki Mylona** on email: **nikimylona@yahoo.com**

The following articles are devoted to research into the Lidcombe Program that has not been organised from Australia, showing that similar results are obtainable in differing cultures and circumstances.

We start, as promised in the last edition of Lidcombe News, with a synopsis of a Randomised Controlled Trial conducted in Germany. It is written for us by Tina Latterman, a member of the Lidcombe Program Trainers Consortium, who, with her co-authors, published this research in the Journal of Fluency Disorders in 2008. For the full reference see end of the article.

One of the great advantages of the Lidcombe Program is the broad evidence base supporting its efficacy and efficiency. In Germany, there is a lack of studies analysing the efficacy of early stuttering intervention. During the last five decades, to the best of my knowledge, only two studies were published in this area (Pape-Neumann, Bosshardt, Natke, & Oertle 2004; Randoll, 1988). The offer to set up a randomized control trial to investigate the impact of the Lidcombe Program on early stuttering in German-speaking preschoolers therefore was a great opportunity to collect data and start building an evidence-based support system to establish the method in Germany. The following part provides a short overview of the study outcome with German preschoolers, which has been published in the Journal of Fluency Disorders (Lattermann, Euler, & Neumann, 2008).

In the context of the study, 46 German preschool children were randomly assigned to a control group or to an experimental group which received the Lidcombe Program. The children were between 3;0 and 5;11 years old, their own and both of their parents' native language was German, stuttering onset had been at least 6 months before, and their stuttering frequency was higher than 3% stuttered syllables. Twenty-three children were assigned to a control group (22 boys, 1 girl, mean age 48 months). The mean percentage of stuttered syllables was 8.8% (median 7.1) pre-treatment. The mean time since onset of stuttering had been 15 months (range 6 to 42 months). The treatment group included 23 children (20 boys, 3 girls, mean age 53 months). Their mean percentage of syllables stuttered before treatment was 9.5% (median 8.2) with a mean time since stuttering onset being 21 months.

The children of the treatment group started therapy immediately and the children in the control group after a waiting period of 16 weeks. Speech samples were recorded at intake and 16 weeks later. For each child, four spontaneous speech samples were recorded at each of the two measurement occasions. At the first occasion, two samples were collected at home prior to

treatment. Parents were asked to either audio or video-tape a play situation involving free-play activities or picture books of at least 10 minutes duration. Another two samples were collected at the clinic, one sample a conversation with the therapist and the other one with the parent. At the second measurement occasion 16 weeks later, this procedure was repeated. The dependent variable was the percentage of syllables stuttered at intake and 16 weeks later.

The purpose of the present study was to investigate whether the short-term effects of treatment with the Lidcombe Program are significantly greater than the decrease expected in the same time period with natural recovery in German speaking preschoolers. Analysis of the data indicated that compared to the control group, the treatment group showed a significantly greater decrease in stuttered syllables in beyond-clinic measurements (6.9%SS vs. 1.6%SS) and within-clinic measurements (6.8%SS vs. 3.6%SS). Both groups showed the same increase in articulation rate. The outcome of this study replicates the result of a previous study by Harris et al (2002). The results of the present study indicate that the Lidcombe Program is indeed an efficient treatment method to reduce stuttering in German-speaking children.

However, I would like to point out that in the Lidcombe studies of Jones et al. (2000) in Australia and of Kingston et al. (2003) in Great Britain the children showed a median treatment time of 11 clinic visits to complete Stage I. In the present study, however, only three children were able to complete this stage within 16 weeks. One may speculate that this longer duration is due to cultural differences:

First, the role of praise may differ between Anglo-Australian and German-speaking countries. It appears that German parents and teachers are comparatively sparse in the application of praise. Many of the parents in the present study reported that initially it was difficult for them to provide the required amount of praise. Therefore they were also trained to use non-verbal praise to supplement their treatment sessions at home, e.g. noise-makers and individual gestures. This proved to be a feasible method to increase praise in treatment sessions and every-day life without parents feeling uncomfortable or forgetting to use it.

Second, another factor that may have had an impact on treatment time is the choice of games and toys for preschool children in Germany. Many typical German preschool board games are intended to support, for example, the cognitive or linguistic development of a child. In this context, some parents are opposed to "plastic toys without pedagogical value". Some of the parents also reported experiencing difficulties embracing the idea of their child "having fun and learning" at the same time. They were also sceptical about the idea that praise was able to influence speech fluency. In these cases I had to spend

more time counselling the parents to choose appropriate play activities and games that would be fun for the child as well as acceptable to the parents.

Third, treatment is free for children in Germany which may have caused a more relaxed attitude towards therapy commitment and thus lengthened therapy duration.

In summary, the results of this study show that the Lidcombe Program does reduce stuttering in German speaking preschoolers. However, clinicians should keep in mind that in some cases the cultural background of German families may require some adaptations of the program, in particular in the areas of providing praise and selecting appropriate games.

References

Harris, V., Onslow, M., Packman, A., Harrison, E., & Menzies, R. (2002). An experimental investigation of the impact of the Lidcombe Program on early stuttering. *Journal of Fluency Disorders*, 27, 203 - 214.

Jones, M., Onslow, M., Harrison, E., & Packman, A. (2000). Treating stuttering in children: predicting outcome in the Lidcombe Program. *Journal of Speech, Hearing, and Language Research*, 43, 1440 - 1450.

Lattermann, C., Euler, H.A., & Neumann, K. (2008). A randomized control trial to investigate the impact of the Lidcombe Program on early stuttering in German-speaking preschoolers. *Journal of Fluency Disorders*, 33, 52 – 65

Kingston, M., Huber, A., Onslow, M., Jones, M., & Packman, A. (2002). Predicting treatment time with the Lidcombe Program: replication and meta-analysis. *International Journal of Language and Communication Disorders*, 38, 165 - 177.

Onslow, M., Packman, A., & Harrison, E. (2003). *The Lidcombe Program of Early Stuttering Intervention*. Austin, TX: Pro-Ed.

Pape-Neumann, J., Bosshardt, H. G., Natke, U., & Oertle, H. (2004). Test-phase of the German program for the evaluation of stuttering therapies (PEVOS). In A. Packman, A. Meltzer, & H. F. M. Peters (Eds.), *Theory, research and therapy in fluency disorders. Proceedings of the 4th World Congress on Fluency Disorders in Montreal, Canada* (pp. 210-217). Nijmegen: Nijmegen University Press.

Randoll, D. (1988). Erfahrungen und Ergebnisse bei der Anwendung des Systematic Fluency Training for Young Children (SFTYC) von R. E. Shine [Experiences and results after application of the Systematic Training for Young Children (SFTYC)]. *Die Sprachheilarbeit*, 33, 227-240.

The next article is a synopsis of an Outcome Study conducted by Barry Guitar from the United States with his colleague, Barbara Miller. It is the second clinical trial to replicate the findings of Lidcombe Program efficacy independently of its developers. Interestingly the study involved student clinicians, thereby also giving us extra information about whether treatment effects are necessarily dependant on highly skilled and trained clinicians. (..see also Lidcombe News, Edition 26, September 2006, for an article about working with students and the LP by Melissa Bruce, Barry Guitar and Julie Reville).

Lidcombe News is extremely grateful to Barry and Barbara for allowing us to publish these results before they come out in the American Journal of Speech Language Pathology.

The Lidcombe Program in Vermont, USA: An Outcome Study

Barry Guitar and Barbara Miller

Let us begin by introducing ourselves. Barry Guitar, the first author, is a teacher, clinician, and researcher at the University of Vermont (UVM). He had been conducting primarily parent-child interaction therapy with preschool children who stutter since 1976. In 2000, he began to use the Lidcombe Program (LP) for this population and has been experimenting with both treatments ever since. Barbara Miller was a graduate student at UVM who was interested in clinical research and took on the task of following up on the first 15 preschoolers treated at UVM with LP. We would like to express gratitude to the *American Journal of Speech Language Pathology* for allowing us to describe this study that is in press at that journal.

Melissa Bruce, Julie Reville and Barry began to use the Lidcombe Program (LP) in the spring of 2000 at the University of Vermont. (Thanks to Rosalee Shenker at the Montreal Fluency Centre for training and mentoring us!) After several years of successful work with more than a dozen preschool children, we realized that it would be important for us to document our outcomes. We began our research on outcomes with the first 15 preschool children we treated with LP. Outcome measures were of particular interest because our clinical setting is slightly different from most other LP clinics: we train and supervise graduate students to work directly with the parents and children under our watchful eyes.

We decided that a valid assessment of outcome would be videotaping children in their homes while they conversed with a familiar listener (one of

their parents), and then talked with a stranger (Barbara Miller). We also interviewed the parents, to get further background information on each child and the parents' impression of the child's current fluency. In order to determine if the treatment was effective long term, we waited to assess each child until a full year or more had passed following the dismissal of the child from Stage 2.

We thought it would be interesting to determine not only the level of fluency each child achieved long term, but also whether any of the child's pretreatment measures and personal characteristics predicted long term outcome or the number of sessions required to complete Stage 1. Measures of pre-treatment and long term post-treatment stuttering were %SS and score on the Stuttering Severity Instrument (SSI) (Riley, 1994). The SSI is a composite score (on a speech sample of 300 syllables) consisting of %SS, duration of the 3 longest stutters, and an assessment of physical concomitants of stuttering such as eye blinks, head nods, and other accessory behaviors. Thus, the SSI is a somewhat more complete measure of stuttering than %SS alone. We also noted the child's age at the first treatment session and the onset-to-treatment time interval, to see if these would predict treatment time.

The children's personal characteristics we chose to evaluate as predictor variable were: gender, handedness, presence of phonological problems, and family history of stuttering. Results showed that :

1. Comparing pretreatment and long term outcome, there was a 96% mean reduction in stuttering frequency (%SS) and an 86% mean reduction in SSI score. These were both statistically significant, although the SSI score showed a bigger effect size.
2. In terms of predictors of treatment time, neither age at onset nor onset-to-treatment time were predictive of number of sessions of treatment needed to complete Stage 1, but both %SS and SSI at the beginning of treatment were predictive of number of treatment time, SSI being more so.
3. Graphs of level of recovery (mean SSI scores a year after treatment) suggest the following characteristics were associated with more residual stuttering (less full recovery) a year after treatment: male children, positive family history of stuttering and presence of phonological disorders. The one child who was left-handed and the one child who was ambidextrous also had residual stuttering a year after treatment—more so than right-handed children. The handedness results echo a previous study of natural recovery, but there were too few non-right-handers in our study to make any real conclusions.

These findings suggest that SSI scores made from video recording pre and post treatment are better predictors of outcome than %SS. Also it is clearly worthwhile for future research with larger numbers of participants to examine such characteristics as handedness, family history, presence of phonological problems, and gender. We are pleased to report that one-year post Stage 2

follow-ups are regular in our clinic and we should soon have more outcome data to report.



Dear Sue,

I have just started working with a little girl called Carmel who has a very severe stutter. Even though she is quite young (3 years, 11months), she has been teased about her speech at nursery and in consequence is very sensitive about her stutter being mentioned. She is accepting when her mother or I tell her that her that her speech is smooth, and when we praise her for it, but if we acknowledge, or ask her to fix her bumps, she says "I don't do bumps!" or " I already said that!" or " I don't want to do that!"As we don't want to do anything that she doesn't like I was wondering whether it would be OK just to do the contingencies for smooth talking and leave out the ones for her stuttered speech. Will this affect the success of the program, or mean perhaps that it takes longer to do?

Is there anything else you would recommend that we could do?

Little Carmel is very clearly letting you know she is unhappy about the verbal contingencies (vcs) for stuttered speech. As you suggest it is essential to stop using these contingencies straight away. It would be appropriate to proceed with contingencies for stutter-free speech only. However it may be possible to carefully reintroduce some verbal contingencies for stuttered speech at a later period in Carmel's therapy, once the problems around her rejection of the contingencies for stuttered speech is clearly understood and resolved. Given of course that when a careful reintroduction is tried Carmel is happy with it.

Teasing at nursery has been identified as the likely contributor to Carmel's rejection of the vcs for stuttered speech. Of course it is essential to ensure this situation has been managed appropriately at nursery and is no longer occurring. Although teasing at nursery has presented as the obvious contributor to Carmel's sensitivity it is

worthwhile exploring any other possible contributors. Are there any other situations where Carmel is receiving inappropriate attention to her speech? An example can be well-intentioned relatives who consider they are helping by correcting Carmel's speech.

In Carmel's case there is no option but to omit vcs for stuttered speech at least in the short term. Proceeding with vcs for stutter-free speech only is likely to mean therapy will take longer as a component of the Lidcombe Program is being left out. Harrison, Onslow & Menzies (2004) give some insight into the short-term impact of leaving out vcs for stuttered speech. This study involved comparing outcomes across 4 weeks of therapy followed by 4 weeks with no therapy. The vcs for stuttered speech were not included for some subjects. The subjects all showed change across the first 4 weeks. However those who had both vcs for stuttered speech as well as for stutter-free speech continued to maintain lower stuttering or to further reduce stuttering across the subsequent no treatment period. Subjects who had only vcs for stutter-free speech showed an increase in stuttering during the no treatment period. These results are only over a short time period but give some indication of the impact of vcs for stuttered speech in the Lidcombe Program.

Reference:

Harrison, E., Onslow, M., & Menzies, R. (2004) Dismantling the LP of early stuttering intervention: verbal contingencies for stuttering and clinical measurement. *Int. J. Lang. Comm. Dis.*, 39, 257-267.



Just explain that again...



? *I have used the LP for many years and found it to be extremely effective. While I appreciate that the behavioural methods we use are 'atheoretical' and that they say nothing directly about the nature of stuttering, I wondered whether you have any theories about why the Lidcombe Program works and what papers may have been published about this?*



We still can't say why the Lidcombe Program works. Onslow, Stocker, Packman & McLeod (2002) explored whether acoustic measures of speech timing evidenced change pre and post therapy in children who were treated using the Lidcombe Program. They concluded that there was no evidence to suggest changes in speech timing. Packman, Code & Onslow (2007) suggest that an "operant treatment for early stuttering is effective because it prompts children to learn to adjust for the underlying neural processing deficit at a critical time of speech development" i.e. at a time of neural plasticity.

References: Onslow, M., Stocker, S., Packman, A., & McLeod, S. (2002). Speech Timing in children after the Lidcombe Program of early stuttering intervention. *Clinical Linguistics & Phonetics*, 16, 21-23.

Packman, A., Code, C., & Onslow, M. (2007). On the cause of stuttering: Integrating theory with brain and behavioural research. *Journal of Neurolinguistics*, 20, 353-362.



? *While the parents in my clinics are delighted with the results they achieve for their children using the Lidcombe Program many are also concerned about the long term success rate of this method. Have you any comments to make or some references about this that I might pass on to these parents?*



Reference:

Jones, M., Hearne, A., Onslow, M., Packman, A., Ormond, T., Williams, S., Schwarz, I., & O'Brian, S. (2008) Extended follow up of a randomised controlled trial of the Lidcombe Program of Early Stuttering Intervention. *International Journal of Language and Communication Disorders*

This recent research into long-term outcomes indicates that most children who successfully complete Stage 2 are maintaining stage 2 criteria from 3 to 7 years after treatment. In this study 16% did experience relapse after 2 or more years maintaining stage 2 criteria. Research at this stage has not been conducted for longer follow up periods. Jones et al also report that currently there are no known predictors in relation to relapse following completion of stage 2. They do recommend that parents remain alert to the possibility of relapse. The Australian Stuttering Research Centre is conducting further research in relation to the risk of relapse post LP.

At the completion of Stage 2 we alert parents to the possibility that for some children, relapse may occur some years ahead. We advise them to contact for advice immediately should relapse be detected, thus allowing for appropriate management to be determined and addressed in a timely manner.

Our grateful thanks go to Margaret Webber and Stacey Sheedy from the Bankstown Stuttering Unit in Sydney, for answering both Dear Sue and 'Just Explain that Again'.

Our final articles (in this edition) about research into the Lidcombe Program from centres outside of Australia come from The Netherlands. This is not a synopsis of work already completed so much as a report on work in progress. The first one describes the project itself which is being co-ordinated from the Erasmus Centre in Rotterdam and we are extremely grateful to them for sharing their work with Lidcombe News. We await the results with great interest. The second one is a personal view of the project from the Dutch Consortium member, Durdana Putker.

Cost-effectiveness of the Demands and Capacities Model based treatment compared to the Lidcombe Program of early stuttering intervention: Randomised trial.

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In 2007, the Erasmus Medical Center in the Netherlands started a large randomized clinical trial into stuttering therapy in preschoolers. The objective of the study is to evaluate cost-effectiveness of the Demands and Capacities Model (DCM) based treatment (Dutch standard) compared to the Lidcombe Program for early stuttering intervention (LP).

Background

In the Netherlands, the Demands and Capacities Model based treatment is the standard (DCM, Starkweather et al. 1990). This treatment uses an indirect approach: treatment focus is not on the stuttered speech but on motoric, linguistic, emotional and cognitive demands and capacities that are hypothesized to underlie the stuttering behavior. The Lidcombe Program (LP)

directly aims to increase fluent speech and decrease stuttered speech. Clinical experience and evidence suggest that both treatments are effective. The best evidence is available for LP: In a RCT it was shown that at nine months after randomisation, children who were treated with the LP stuttered less than children in the no treatment arm (Jones et al. 2005). At that time, however, most children in the LP treatment group were still in the second stage of the treatment program at the nine-month follow-up point and quite some children were still even in the first stage of treatment. Yet an ended evaluation of therapy was not provided; let alone long term results*(see Ed's note). With regard to the efficacy of DCM based treatment, preliminary results from a randomised pilot trial have shown that the effects of DCM and LP treatment are comparable after twelve weeks (Franken et al. 2005). The decrease in stuttering for both treatment arms was comparable to the decrease in stuttering in the Harris et al. study (2002), in which the effect of the LP after twelve weeks was compared with no treatment. To improve the evidence basis underlying stuttering therapies, a cost-effective evaluation of both stuttering therapies is relevant. The aim of this study is to determine the relative effectiveness, cost-effectiveness and cost-utility of the Demands and Capacities Model based treatment as compared to the Lidcombe Program in pre-school children who stutter.

Study design

Children present themselves to and are treated at 17 participating speech clinics (19 Speech and Language Pathologists) around the Netherlands. During their regular education as a clinician, all SLPs were trained to treat according to the Dutch standard (DCM based treatment), and in a special course by Elisabeth Harrison or Mary Kingston they were trained in the LP. After assessment of stuttering, informed consent and collection of baseline measures, children are randomly assigned to one of two treatments. Therapist, sex, severity of stuttering, family history of persistent and recovered stuttering and treatment during the last twelve months stratify randomisation. Therapists work according to treatment protocols; either the Lidcombe Program or a DCM protocol formulated by the research group. The DCM

protocol is based on several therapy approaches which all can be considered as DCM approaches (e.g. Gregory 2003; Prins van Haarlem 2004; Richels & Conture 2007; Riley & Riley 1999; Starkweather et al. 1991). Outcome assessment will be blinded. Outcomes will be analyzed at baseline and at three, six, twelve and 18 months post therapy onset.

Study population

The study population consists of pre-school children who stutter, who present at the participating speech clinics for help. Based on a power-analysis, the aim is to collect data on at least 176 children.

Inclusion criteria are: 1. Age between 3.0 and 6.3 years; 2. At least 3% syllables stuttered; 3. Parent and one therapist agree the child stutters; 4. Parent rating of stuttering severity on an 8-point scale of at least 2; 5. Proficiency in Dutch for children and parents.

The 8-point Parent Severity Scale (Yairi & Ambrose 2005) is used, where 0 = normally fluent, 1= borderline stuttering, 2= mild stuttering and 7= severe stuttering.

Exclusion criteria are: 1. Onset of stuttering within six months before recruitment; 2. Severe speech-language disorder; 3. Diagnosed neurologic, emotional, cognitive, behavioral or autism spectrum disorder.

Outcome measures

The primary outcome parameters are the percentage of recovered children at 18 months post therapy onset and the costs for a recovered child. Stuttering frequency is based on speech samples of the child's conversational speech outside the clinic. Secondary outcomes are the frequency of stuttering outside the clinic at 18 months post therapy onset, scores on the Health Utility Index (HUI), visual analogue scale (Euroqol VAS proxy), Child Health Questionnaire (CHQ-PF 28) and the Child Behaviour Check List (CBCL).

The present state of the project

The study is open for inclusion since august 2007. At this moment, one year later, 61 children are randomised in the study. All participating clinicians and

the research team meet every three months to discuss questions and study related topics and to exchange experiences.

**Editor's note*

In fact there is a very recently published paper about long term outcome of the 2005 Jones et al RCT paper (see also 'Just Explain That Again', p.11 of this edition) As follows:

Jones, M., Hearne, A., Onslow, M., Packman, A., Ormond, T., Williams, S., Schwarz, I., & O'Brian, S. (2008). Extended follow up of a randomised controlled trial of the Lidcombe Program of Early Stuttering Intervention. *International Journal of Language and Communication Disorders*

Other References from the article:

Bloodstein, O. (1995). *A handbook on stuttering*. San Diego, CA: Singular Publishing.

Franken, M.C.J., Kielstra-van der Schalk, C.J., & Boelens, H. (2005). Experimental treatment of early stuttering: A preliminary study. *Journal of Fluency Disorders*, 30, 189-199.

Gregory, H.H. (2003). *Stuttering therapy: rationale and procedures*. Boston: Pearson Education, Inc.

Harris, V., Onslow, M., Packman, A., Harrison, E. & Menzies, R. (2002). An experimental investigation of the impact of the Lidcombe Program on early stuttering. *Journal of Fluency Disorders*, 27(3), 203-13.

Jones, M., Onslow, M., Packman, A., Williams, S., Ormond, T., Schwartz, I., & Gebski, V. (2005). Randomised controlled trial of the Lidcombe Program of Early Stuttering Intervention. *British Medical Journal*, doi:10.1136, 1-5.

Prins van Haarlem. Advies bij opvoeding en bijzonder gedrag. October 2004.

Richels, C.G. & Conture, E.G. (2007). *An Indirect Treatment Approach for Early Intervention for Childhood Stuttering*. In: E.G. Conture & R.F. Curlee (eds.) *Stuttering and related disorders of fluency*. Third edition. New York: Thieme, page 77- 99.

Riley, G. & Riley, G. (1999). *Speech Motor Training*. In: Onslow, M. & Packman, A. (Red.), *The handbook of early stuttering intervention* (139-158). San Diego/London: Singular Publishing Group, Inc.

Starkweather, C.W., Gottwald, S.R., & Halfond, M.M. (1990). *Stuttering prevention: A clinical method*. Englewood Cliffs, NJ: Prentice-Hall.

Yairi, E. & Ambrose, N.G. (2005). *Early childhood stuttering*. Austin, Texas: Pro-ed.

Dutch Cost Effectiveness study from a therapist's point of view...

by Durdana Putker

The study described in the above article is part of my daily job. I work in a centre specialising in the treatment of stuttering and I am one of the 19 therapists who deliver the therapy. I am also a member of the Lidcombe Program Trainers Consortium. From the very beginning I was involved in the design and set-up of the study and right from the start I was very excited about it, because I hope it will answer questions we are struggling with in our daily work.

What are those questions?

- What type of treatment is the best one for this particular child? Are age, or the frequency of stuttering, consistency of stuttering, motor or language characteristics, time since onset, family history of stuttering, family characteristics or any other factors indicators of the probability of success??
- Am I more successful in one type of therapy than the other?
- Are parents equally satisfied about the Lidcombe Program as compared to the Demands and Capacities based approach?

The therapists participating in the study do so because they feel it can provide very important knowledge for our field and they all want to contribute to this. But during the first meetings we had with the whole group of therapists, it became obvious that we had to overcome some 'bumps' too.

One of the aspects of the study that was sometimes found hard by the therapists was the principle of randomisation; therapists sometimes felt a personal preference for one of the two therapies for a particular child. By sharing experiences during the group meetings it became clear, however, that a treatment that was initially not preferred could give surprising results: "Though I would not have chosen this approach for this child, it works beautifully."

Another 'bump' was to let go of the usual routine: start advising and working as soon as possible. For the participating children in the study, a baseline is established. During this time you don't do 'anything'. The intriguing thing is that several children stopped stuttering during the baseline measurements. What is happening here????

Also, working with a protocol and sticking to the protocol sometimes felt like a restriction.

Finally, all the extra things you have to do when a child is included need a lot of organisation: arranging the follow-up measurements at the correct time, getting good speech samples from the parents, having all the different questionnaires available etc. Caroline helps us with all of these practical things and reminders are mailed on a weekly base which keeps us on track.

But it's not all 'bumps' we also meet 'highs':

Discussing our caseload with the group of participating therapists brings about lots of new ideas. We do this at the three monthly meetings, but also by e-mail. Having to deliver one therapy to one child and the other therapy to another makes me very well aware of the underlying assumptions of both therapies. I will for instance not comment on fluency in the demands and capacities approach, whereas in the Lidcombe Program I will focus on fluent speech and the quality of the contingencies.

A very important new insight for me is that my 'old' presumptions, based on former experience, need to be adjusted. I am learning just to step into therapy, to do the best job I can and to see what happens.

I hope I have made the readers of the Lidcombe News a little curious and excited about the study with this description of my experience as a participating therapist. I am looking forward to the time we can discuss the findings and the possible implications.

Greetings to you all!

Durdana Putker, Member of the Lidcombe Program Trainers Consortium