### CHAPTER 5

**Palin Parent–Child Interaction**  
*Willie Botterill and Elaine Kelman*

### CHAPTER OUTLINE

**INTRODUCTION**
- Principles of Treatment: Parents (or Key Caregivers) Are Involved in Directing and Delivering Therapy in the Home
- Principles of Treatment: Understanding the Child’s Needs
- Principles of Treatment: Stuttering Is Discussed Openly
- Principles of Treatment: Parents Are Already Helping
- Goals of Treatment

**THEORETICAL BASIS FOR TREATMENT APPROACH**
- Factors That May Contribute to the Onset of Stuttering
- Factors That Contribute to the Development of Stuttering and Risk of Persistence
- Factors That Contribute to the Moment of Stuttering
- The Michael Palin Centre Multifactorial Framework
- Assessment and Therapy
- Profile of Vulnerability
- Therapy – Palin PCI

**EMPIRICAL BASIS FOR TREATMENT**
- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5
- Summary

**PRACTICAL REQUIREMENTS**
- Training
- Assessment Skills
- Therapeutic Skills
- Technical Equipment and Skills

**ASSESSMENT METHODS TO SUPPORT ONGOING DECISION MAKING**
- Initial Assessment to Support Decision Making Regarding Intervention
- Ongoing Assessment to Monitor Treatment Effectiveness

**TAILORING THE TREATMENT TO THE INDIVIDUAL CLIENT**
- Session 1
- Session 2
- Session 3
- Session 4
- Session 5
- Session 6

**CASE STUDY**
- Case Study Questions

**FUTURE DIRECTIONS**
- Training
- Application of Palin PCI to Other Disorders
- Research
- Summary

**CHAPTER SUMMARY**

**CHAPTER REVIEW QUESTIONS**

**SUGGESTED READINGS**

---

### KEY TERMS

**Palin Parent–Child Interaction**: therapy program using video feedback to help parents develop styles of interaction to facilitate their child’s fluency.

**Multifactorial perspective**: a number of different factors may be relevant in the onset, development, and persistence of a stuttering problem and are therefore also considered in its treatment.
**Special Time:** 5-minute, play-based sessions for the parent and child to practice specific fluency-facilitating targets in the home.

**INTRODUCTION**

**Palin Parent–Child Interaction** (Palin PCI) (Kelman & Nicholas, 2008) is a therapy program conducted at the Michael Palin Centre (Palin Centre) for children up to 7 years of age that uses play-based sessions with parent–child pairs, video feedback, and facilitated discussions to help parents support and increase their child’s natural fluency. It is often the first and only intervention for young children at the Palin Centre. It differs from other approaches to modifying parent–child interaction in the following ways:

- It is a facilitative rather than an instructive approach: parents’ instinctive expertise is elicited, reinforced, and developed.
- Parents use video feedback to set their own targets and reinforce progress.

There are some children who also benefit from other interventions such as language therapy or speech sound work, as indicated, once Palin PCI has been completed.

**PRINCIPLES OF TREATMENT: UNDERSTANDING THE CHILD’S NEEDS**

Palin PCI is based on the therapist’s and parents’ shared understanding of the child’s particular profile of speech motor and linguistic strengths and vulnerabilities. These are identified during the assessment and provide the context for exploring what the child needs in order to plan, organize, and deliver a message fluently.

**PRINCIPLES OF TREATMENT: PARENTS ARE ALREADY HELPING**

A key principle is that parents of children who stutter are already interacting with their children in ways that support natural fluency. The young children seen at the Palin Centre are fluent much more often than they stutter. Parents seek help because they are worried about the development of persistent stuttering, and they feel ill equipped to help their child. Palin PCI provides the means by which parents become increasingly knowledgeable about their child’s communication skills and helps them to identify what they do that supports the development of fluency. Palin PCI aims to empower and reinforce parents’ ability to interact in ways that match the child’s fluency needs and focus on increasing these interactions in the home environment.

**PRINCIPLES OF TREATMENT: PARENTS (OR KEY CAREGIVERS) ARE INVOLVED IN DIRECTING AND DELIVERING THERAPY IN THE HOME**

Palin PCI is based on the principle that parent involvement in therapy is essential to reduce stuttering in the young child. Where appropriate, both parents attend the initial assessment and all therapy sessions, carry out homework tasks with their child, and provide feedback on progress. Central to this approach is the establishment of a collaborative therapeutic relationship in which the parents’ and the therapist’s knowledge and perceptions are shared and in which parents are encouraged to make their own observations, draw their own conclusions, set their own goals, and reflect on their progress each week. Within this relationship, the therapist’s role is to facilitate and affirm, rather than instruct, advise, or model.

**PRINCIPLES OF TREATMENT: STUTTERING IS DISCUSSED OPENLY**

Parents are encouraged to acknowledge stuttering openly; they are helped to identify their fears about acknowledging stuttering and are encouraged to use age-appropriate, child-centered terminology. Normalizing the problem from the beginning can substantially reduce the anxiety and fear associated with stuttering for parents and for children. Although anxiety does not cause stuttering, stuttering causes anxiety.

**GOALS OF TREATMENT**

The primary goal of Palin PCI is to establish a foundation of parental understanding, knowledge, skill, and confidence in managing stuttering, which will support and augment the child’s fluency during each stage of therapy. Another goal is to reduce the family’s anxiety about stuttering and ultimately reduce the instances of stuttering in young children to within normal limits.
THEORETICAL BASIS FOR TREATMENT APPROACH

It is our view that any therapeutic approach to early stuttering must not only account for the many factors that may be contributing to the onset and development of stuttering in the individual child, but also acknowledge and harness the strengths and resources that the child and family bring to the clinical setting. This understanding of the nature of each child’s difficulties as well as their strengths informs the therapy process from the beginning.

A multifactorial perspective (Smith & Kelly, 1997; Starkweather & Gottwald, 1990; Wall & Meyers, 1995) is supported by growing evidence that there are factors that may account for the child’s underlying vulnerability to stuttering and its onset; factors that contribute to the development of the problem and, in some cases, its persistence; and factors that contribute to the moment of stuttering.

FACTORS THAT MAY CONTRIBUTE TO THE ONSET OF STUTTERING

Genetics

The underlying vulnerabilities to stuttering are highly complex and continue to be the focus of extensive research. It seems incontrovertible that genetic factors play a role in the onset of stuttering, and linkage studies are getting closer to finding the specific genes that predispose children to the disorder (Cox et al., 2000; Drayna, 1997; Shugart et al., 2004; Suresh et al., 2006). However, it is important to note that genes alone do not produce or determine behavior, especially one as complex and variable as stuttering; they only increase the probability that it will occur (Starkweather, 2002). It is acknowledged that a wide range of factors influences the extent to which a behavior trait such as stuttering finds expression (Starkweather, 2002). The complexity of the genetic predisposition was also discussed by Ambrose, Cox, and Yairi (1997), who suggested that an other factor—such as rapid rate of speech, low tolerance for frustration, slow reaction time, word retrieval or sentence formulation skills, chronic or excessive muscle tension, or any combination of these—may be the inherited variable that results in stuttered speech.

In addition to whether or not stuttering is likely to occur, Ambrose, Cox, and Yairi (1997) and Suresh et al. (2006) both report data that suggest the predisposition to recover or persist in stuttering is also inherited.

Neurophysiologic Factors

While the nature of the genetic transmission is still being investigated, parallel areas of research suggest that the onset of stuttering may be related to some underlying structural and or functional differences in the brain (Foundas et al., 2000; Fox et al., 2000; Sommer et al., 2002). Findings from brain imaging and brain function studies have not yet been replicated in children, so it is not possible to determine whether any identified differences are responsible for the onset of stuttering or are a response to it. However, it has been suggested that an underlying neurologic dysfunction may be disrupting the complex two-way interaction between language planning and motor processing in children who stutter (Caruso, Max, & McClowry, 1999; Ingham & Cordes, 1998; Peters, Hulstijn, & Van Lieshout, 2000).

Speech Motor Skills

Stuttering presents as a breakdown in speech motor control, and as a result, there has been considerable research related to this area over the years, particularly in adults. The results are sometimes conflicting but suggest that there are differences in the speech production processes of adults who stutter compared with adults who are typically fluent. Although there has been less research on speech motor skills in children than in adults, there are indications of some subtle deficits in children (see review by Conture, 1991). In particular, studies have suggested that children who stutter have reduced oromotor skills (Riley & Riley, 1980), slower vocal and manual response times (Bishop, Williams, & Cooper, 1991), and difficulty stabilizing and controlling laryngeal movements, even during perceptually fluent speech (Conture, Rothenberg, & Molitor, 1986).

The Communication Environment: Interaction Styles

Considerable research has been carried out concerning the role that the communication
environment and interaction styles may have in the onset of stuttering. The results suggest that there is no evidence that the interaction styles of parents of children who stutter and children who do not stutter are different (for a review, see Nippold & Rudzinski, 1995) or have a role in the onset of stuttering. Miles and Bernstein Ratner (2001), however, suggested that although the input of parents of children who stutter is parallel to that of parents of children who do not stutter, children who stutter might have more difficulties assimilating or responding to this input as a result of their underlying linguistic and or temperamental vulnerabilities. Perhaps the underlying vulnerabilities that predispose children to stutter also make it more difficult for them to be fluent in the context of typical adult-child interactions.

Summary
Many researchers agree that, for most children, the onset of stuttering will be shown to have a physiologic base that affects the delicate and complex balance of the child’s developing linguistic and motor skills.

FACTORS THAT CONTRIBUTE TO THE DEVELOPMENT OF STUTTERING AND RISK OF PERSISTENCE
There is considerable agreement that it is the interplay between the child’s underlying vulnerabilities and his or her temperament and linguistic and social environment that contributes to the development of stuttering and the risk of persistence (Yairi & Ambrose, 2005).

Linguistic Factors
Thus far, research suggests that there are no differences in the overall linguistic abilities of children who stutter (see Kloth et al., 1999; Watkins & Yairi, 1997; and Yairi et al., 2001 for a discussion). However, in a recent study, Anderson, Pellowski, and Conture (2005) assessed the expressive and receptive language and phonologic skills of children who stutter and children who do not stutter and looked at the dissociations or mismatches within or between components of these skills. They found that children who stutter are three times more likely to exhibit these mismatches than their fluent peers. The fact that there were children who exhibited dissociations but who did not stutter and there were children who stuttered but who did not exhibit dissociations means that linguistic dissociations on their own cannot account for stuttering onset but may be relevant in combination with other factors or in relation to persistence.

The role of phonologic skills has also been well researched, with high proportions of children who stutter also having speech sound impairments (Yaruss, Lasalle, & Conture, 1998). In addition, an association has been found between reduced phonologic skills and persistence of stuttering (Paden, Yairi, & Ambrose, 1999).

Gender
Research seems to indicate that more boys than girls persist in stuttering (Yairi & Ambrose, 2005). The ratio of boys to girls who stutter is reported to be as low as 1:1 (Yairi, 1983) close to onset and increases with age to about 6:1 (Bloodstein, 1995).

Time since Onset
For the majority of children, recovery occurs within the first 12 months (Yairi & Ambrose, 1992; Yairi et al., 1996) to 18 months (Johannsen, 2000) after stuttering begins. Although some children will still achieve fluency after this (Yairi & Ambrose, 1999), the probability of recovery decreases with age (Seider, Gladstien, & Kidd, 1983) and length of time stuttering (Yairi et al., 1996). These studies also identified that children who persist in stuttering demonstrate a relatively stable level of stuttering over time. In contrast, children who recover show a marked reduction in the amount of stuttering during the first year after onset, and this pattern of improvement continues over time.

Psychological-Emotional Factors
Significant research continues to investigate the role of psychological factors, particularly temperament, in contributing to the development of persistent stuttering. Researchers such as Conture (2001) and Guitar (2006) suggest that temperament traits, such as sensitivity, inhibition, and reactivity, among others, may maintain or exacerbate stuttering. The research suggests that children who stutter are more sensitive and inhibited (Anderson et al., 2003; Embrechts
et al., 2000). It is suggested that children who stutter may be intolerant of disruptions in their speech and react in ways that exacerbate the problem rather than ameliorate it. Recent research findings by Conture’s research team at Vanderbilt University have suggested that “the relatively greater emotional reactivity experienced by preschool children who stutter, together with their relative inability to flexibly control their attention and regulate the emotions they experience, may contribute to the difficulties these children have establishing reasonably fluent speech and language” (Karrass et al., 2006, p. 402).

Within the clinical environment at the Palin Centre, parents frequently describe their child who stutters as being “highly sensitive,” “easily upset,” and “a bit of a worrier.” In addition, parents say their children who stutter seem to “set themselves high standards,” “be perfectionists,” and “like to get things right” and are often “anxious to please.” It has also been proposed that a child’s temperament may influence how he or she responds to different parental interaction styles (Felsenfeld, 1997), and there is a growing body of research that seems to support the idea that the temperament of the child has an important role to play in the development and possibly the persistence of stuttering. Therefore, temperament may be an important variable to consider in therapy.

**The Communication Environment: Interaction Styles**

Although there is no evidence that parents’ interaction styles have a role in the onset of stuttering, Kloth et al. (1998) provide evidence from their longitudinal study that mothers made changes in their interactions in response to the stuttering of their children. This study showed that after the onset of stuttering in their children, mothers tended to be more intervening, take more turns, use shorter pauses, make more requests for information, and use more affirmatives than they had used before onset. Rommel (2000) was also looking at factors that affect the development of stuttering and found that the more complex the mother’s language and the greater the discrepancy between mother and child linguistic variables were, the higher the chances of persistence.

**Summary**

Anderson et al. (2005) concurred with Hall (2004) by suggesting that “it is the child’s attempt to reconcile or manage dissociations in speech and language that contributes to disruptions in their speech and language production, which in combination with a genetic predisposition towards stuttering or, perhaps a temperamental disposition that is relatively intolerant of any such disruptions, that results in the emergence of persistent stuttering” (p. 242).

**FACTORS THAT CONTRIBUTE TO THE MOMENT OF STUTTERING**

**Linguistic Factors**

There are a number of research studies that have looked more closely at the relationship between length and complexity of utterances and stuttering frequency. These have shown that children are more likely to stutter when using longer, more complex sentences (Logan & Conture, 1995; 1997; Logan & LaSalle, 1999; Melnick & Conture, 2000). However, Yaruss (1999) pointed out that this was true of only some children in his study.

Other studies have looked at factors that influence the location of stuttering and demonstrated that it tends to occur at the beginning of an utterance (Howell & Au-Yeung, 1995), on function rather than content words (Howell, Au-Yeung, & Sackin, 1999), and on longer words (Rommel, 2000).

**The Communication Environment: Interaction Styles**

Parents and their children live in a socially interactive environment. Children’s social, emotional, and behavioral development is influenced by the way their parents “parent.” Furthermore, the way in which children respond and develop affects their parents. It is a dynamic, constantly evolving relationship that is unique to each child and family.

Many early intervention approaches have been based on helping parents make changes in the communication environment of the child in the belief that this will reduce the amount of stuttering. There is at least some evidence that parental interaction styles can be modified (Nicholas, Millard, & Cook, 2003), and stuttering has been shown to decrease when parents
slow down their rate of speech (Guitar et al., 1992), when they increase pause time and response latency time (Newman & Smit, 1989), and when they put in place structured turn taking (Winslow & Guitar, 1994). Interestingly, closer inspection of the results indicates that the impact of the changes made by parents seems to have been somewhat idiosyncratic (Zebrowski et al., 1996), with the frequency of stuttering reducing in some children but not in others.

Not only is there some evidence that modifications in a parent’s interaction style can reduce the frequency of stuttering, but there is also evidence that stuttering influences parent interaction style (Meyers & Freeman, 1985a; 1985b; Zenner et al., 1978). These studies showed that mothers of both children who stutter and children who do not stutter use a faster rate of speech (Meyers & Freeman, 1985b), interrupt more frequently (Meyers & Freeman, 1985a), and are more anxious (Zenner et al., 1978) when interacting with children who stutter compared with children who do not stutter. Several authors emphasized the important role played by the family and family dynamics in the therapy process (Cook & Botterill, 2005; Kelly & Conture, 1992; Manning, 2001; Wall & Myers, 1995). Shapiro (1999) concluded, “stuttering, and other communication disorders exist and must be addressed within a family context” (p. 125).

Summary
There are important linguistic considerations and interaction styles that influence the moment of stuttering during communication. These are unique to each child and family and are important to take into account when planning and delivering therapy.

THE MICHAEL PALIN CENTRE
MULTIFACTORIAL FRAMEWORK
The multifactorial framework depicted in Figure 5.1 interprets the previously outlined research as suggesting that predisposing physiologic and linguistic factors may be significant in the onset and development of stuttering. Furthermore, the interaction of these factors with emotional and environmental aspects is thought to contribute to the severity and persistence of the disorder and the impact it has on a child and the family. For each child, there is a unique combination of these factors that contributes to the onset and subsequent development of stuttering toward either recovery or persistence.

ASSESSMENT AND THERAPY
Because of the relationships described earlier, it is essential to conduct a comprehensive, multifactorial assessment to identify the factors that are pertinent to each child’s difficulties. Assessment of the child’s speech, language, and fluency skills, as well as information from structured interviews with children and their parents or caregivers, provides the basis for identifying children at risk of persistence. It also provides the information necessary to make recommendations and tailor therapy to meet the needs of individual children.

PROFILE OF VULNERABILITY
It is not yet possible to predict precisely the level of risk or the “weighting” of those factors that make one child more vulnerable than another. Furthermore, it is still not possible to predict with any accuracy what the eventual outcome is for any individual child, either with or without therapy (Bernstein Ratner, 1997). However, research has been able to isolate factors that are most likely to help identify children who are at some risk of stuttering (Kloth et al., 1999; Yairi & Ambrose, 1999). On the basis of current research and clinical expertise, therapists at the Palin Centre select children for therapy according to their vulnerability to persistence. This is based on information about family history, time since onset, the changes in stuttering since onset, and the child’s or parents’ concern about the problem. Children who are involved in the research program are only selected if they have been stuttering for more than 12 months. Routinely, treatment is offered to children who have been stuttering for less time if the levels of concern are high.

THERAPY – PALIN PCI
Palin PCI is based on the premise that the underlying vulnerabilities that predispose children to stuttering may also make it more difficult for them to be fluent in the context of typical adult-child interactions.
The main focus of Palin PCI is the child, his or her profile of skills, and facilitating further development of the naturally occurring fluency within the environment. It also aims to build on parents’ or caregivers’ knowledge and confidence in what helps and enhances existing behaviors that support fluency.

The intention of therapy is to establish strategies that support the child’s natural fluency and minimize the impact of the stuttering on both the child and the family through:

1. Interaction strategies: These may include, for example, changes in rate, length, and complexity of utterances; turn taking; use of pausing; comments; and following the child’s lead.

2. Family strategies: These can include strategies such as managing anxiety about stuttering, coping with highly sensitive children, confidence building, behavior management, and turn taking.

3. Child strategies: These are included for some children as appropriate. They may include direct speech modification, fluency-enhancing strategies, language therapy, or speech sound therapy.

**EMPIRICAL BASIS FOR TREATMENT**

The previous section has provided the rationale for the Palin Centre conceptualization of stuttering and some of the evidence that supports this view.

Palin PCI was developed at the Palin Centre in the early 1980s (Rustin, Botterill, & Kelman, 1996). Since then, it has drawn on the experience of expert clinicians and the families that they have worked with, and it has been influenced and shaped by the work of academic researchers and respected authorities in the field.

Evidence-based practice is now an essential component of ethical working within the field of speech and language therapy. Sackett et al. (2000) emphasize the multidimensional nature of evidence-based practice and describe it as the “integration of best research evidence with clinical expertise and patient values” (p. 1). The clinical work at the Palin Centre is informed by a wide range of theoretical perspectives from the field of psychology as well as speech and language therapy, providing a broad evidence base to support
our practices. In addition, the Palin Centre is committed to continuing professional development, updating the Centre’s research knowledge, and maintaining an active clinical research program that consistently seeks the opinions of the children and parents who use the services.

This section provides a description of the clinical research framework that the Palin Centre is using to explore the effectiveness of Palin PCI. The framework is based on the model proposed by Robey and Schultz (1998), which Pring (2005, p. 245) applied to stuttering research. The model advocates a progression from treatment efficacy research, where therapy is investigated under optimal conditions, to treatment effectiveness research, where therapy is investigated under clinical conditions. As the process develops, the factors that influence outcome are isolated and investigated. There are five phases of research described in a logical series but that are not discrete.

**PHASE 1**

In phase 1, clinical reports, small group studies, and single-case studies are used to demonstrate potential therapeutic effects. Clinical reports detailing the positive impact of Palin PCI for individual clients, such as the case reported in this chapter, have been available for a number of years (Rustin, Botterill, & Kelman, 1996). Matthews, Williams, and Pring (1997) presented a single case study reporting stuttering frequency data relating to Palin PCI. In this study, the progress of a 4-year-old boy was monitored for 6 weeks before therapy, 6 weeks during therapy, and 6 weeks after therapy. The percentage of words stuttered was calculated from speech samples obtained while the child played with each parent in the clinic for a period of 20 minutes once a week. The therapy resulted in a significant reduction in the frequency of the child’s stuttering during therapy that was maintained during the posttherapy phase.

The design and methods employed by Matthews, Williams, and Pring (1997) were adapted and improved by Millard, Nicholas, and Cook (2008) to include increased participant numbers, nonclinic measures, and long-term follow-up data. Millard, Nicholas, and Cook used a single-subject methodology to investigate fluency development in six children, less than 5 years of age, who had been stuttering in excess of 12 months. Stuttering frequency measures were obtained from video recordings of the child playing at home with each parent. From these recordings, stuttering frequency data were obtained weekly during a 6-week pretherapy baseline phase, a 6-week clinic therapy phase, a 6-week home-based therapy phase, and once a month during a 1-year posttherapy follow-up phase. Cusum analyses were conducted on each participant’s stuttering frequency data to determine whether there was a systematic change in the data that was outside the range of variability of stuttering in the baseline phase and that could not be accounted for by chance (Montgomery, 1997). The analyses demonstrated that four of the six children significantly reduced the frequency of their stuttering with both parents by the end of the consolidation phase. Therapy for these four children focused on the development of interaction and management strategies only. One child reduced his stuttering with one parent, while the remaining child significantly reduced her stuttering by the end of the follow-up period. Both of these children went on to receive direct therapy input during the 1-year posttherapy follow-up phase.

There are a number of advantages to using single-subject designs with children who stutter. The use of repeated measures prior to the introduction of therapy allows the detection of any signs of pretreatment recovery. It also enables observation of each child’s individual variability and provides a more representative picture of a child’s overall fluency skills (Ingham & Riley, 1998). The child’s progress can then be measured against his or her normal variability in fluency, which eliminates the problem of withholding therapy. It is also argued that it is a more clinically relevant design, particularly for heterogeneous disorders, because it can be used within the context of regular clinical work (Pring, 2005).

**PHASE 2**

In phase 2 research, studies are designed to show how the therapy works, which clients are suitable for a particular program, the amount of therapy needed, and the method of delivery.

Consideration of the information from phase 1 clinical reports and single-subject data, along with evidence from other researchers in the
field, led to the development of hypotheses about why and how Palin PCI might work. Exploration of the mechanisms of change would constitute phase 2 in the research framework.

Because Palin PCI places a strong emphasis on modifications to parent interaction style, it might be assumed that this would change as part of the therapy process. Using the recordings collected as part of the Millard, Nicholas, and Cook (2008) study, preliminary data reported by Nicholas, Millard, and Cook (2003) suggested that parents are able to make changes during Palin PCI and that these changes can be maintained over time. Nicholas et al. found that fathers significantly reduced the proportion of utterances that were requests for information and reduced the length of their turn, whereas mothers significantly reduced the number of their utterances that were instructions. There is evidence, therefore, that this line of inquiry should be extended in a larger study involving the analysis of longer term data and increased subject numbers.

Millard, Edwards, and Cook (2009) observed a relative reduction in the expressive language scores of five children who began therapy with above-average scores. Each of these children did not maintain the above-average scores 6 months after therapy but achieved scores that were within the normal range. Since their receptive skills maintained the advanced developmental trajectory, Millard et al. concluded that the observed relative reduction could not be explained by a linguistic environment that was inadequate to maintain language growth, as has been proposed in the past (Miles & Bernstein Ratner, 2001). They suggested that the data adds further support to the possibility of a fluency-language trade-off (Miles & Bernstein Ratner, 2001).

Phase 2 also seeks to identify the appropriate outcome measures for use in effectiveness studies. We consider that outcome measures should reflect not only stuttering frequency, but also the multidimensional nature of stuttering, the impact that it may have on both children and parents, and the expectations and needs of the client.

Frequency of stuttering represented as a percentage of syllables stuttered is usually cited as the only evidence of success in therapy for young children who stutter. Although this is clearly an essential measure, it provides a somewhat one-dimensional perspective of stuttering behavior. It is well known that stuttering in young children varies considerably from day to day and situation to situation, and it is common for children to be much more fluent in clinic than at home, or vice versa. Obtaining a single measure of stuttering frequency from one speech sample is unlikely to be representative of a child’s overall fluency. Although use of multiple measures and contexts partly addresses this issue (Ingham & Riley, 1998), other important aspects of the problem are not reflected. The aims of Palin PCI are much broader than singularly reducing stuttering frequency and include developing parents’ knowledge about stuttering, reducing their worries about their child’s speech, and increasing their knowledge and confidence about strategies for managing their child’s stuttering more effectively. Because parents/caregivers are an integral part of the therapy process, it is essential that they are involved in providing additional clinical outcome data. However, there are few assessment tools that adequately evaluate these broader issues.

Parents’ Ratings of Outcome

In an attempt to address the need for parental input, Millard (2002) conducted a qualitative study to find out what parents consider to be the most important outcomes in therapy and to develop an outcome measurement tool for parents who receive Palin PCI. The design of the study followed the principles of the Delphi approach. This is a structured methodology that aims to obtain a group’s opinion or judgment on a topic (Goodman, 1987) and to arrive at consensus through a specified procedure (Mosley & Mead, 2001). In this instance, the “group” consisted of parents who had attended the Palin Centre for therapy with their children during the previous year. The resulting rating scales contained a wide range of themes that reflected the broad nature of the therapy they had received. In addition to reductions in stuttering frequency and severity, the parents considered reductions in the child’s anxiety, frustration, and concern about speech and increases in the child’s confidence in speaking and turn-taking skills to be important indicators of improvement. The parents also considered positive changes in their own level of concern and confidence in managing the stuttering effectively, along with the
impact on the family as a whole, to be important outcomes of the therapy program. The resulting questionnaire consists of a series of visual analog scales that allows a numerical value to be obtained before therapy and at intervals throughout the therapy process so that change can be evaluated. This rating scale is used routinely at the Palin Centre, in conjunction with fluency and language measures and is available in Millard, Edwards, and Cook (2009).

PHASE 3
Phase 3 of the research framework relates to large-scale efficacy research. Although randomized controlled trials (RCTs) are generally viewed as the “gold standard” methodology for treatment efficacy research (Jones et al., 2001), they are not without their limitations.

The strength of large-scale RCTs is that the results can be generalized to a wider population than the participants studied. The limitation is that group studies do not capture individual responses to therapy and group findings cannot be used to predict how an individual will respond to a given therapy. The need for large subject numbers can restrict the range of dependent variables that can be monitored, which could result in potentially informative findings or new discoveries being missed (Schwartz & Conture, 1988; Watkins & Yairi, 1997). On a practical level, the large subject numbers that are required to account for the heterogeneity of stuttering and individuality of therapy have significant implications for recruitment and resources. There are also ethical considerations in withholding treatment from a “no treatment” control group and methodologic limitations in substituting a best practice control group (Pring, 2005). In our attempts to conduct an RCT to investigate Palin PCI with young children who are at risk of persistent stuttering, we have encountered all of these difficulties. Like Onslow, Andrews, and Lincoln (1994), we found that the practical and ethical difficulties of maintaining a no treatment control group resulted in a design that was impractical and inappropriate and that had to be abandoned.

The emphasis in single-subject studies is to incorporate controls to obtain high internal validity—that is, the findings cannot be generalized to the population as a whole and it is this that is important in a phase 3 study. However, replicating findings across individuals helps to increase external validity (Pring, 2005), and there is an argument that appropriately designed and well-controlled single-subject experimental designs that are replicated can be considered to be strong sources of evidence alongside RCTs (Kully & Langevin, 2005). Because of the advantages of using single-subject studies to investigate therapy with this client group and because of the difficulties inherent in conducting an RCT, we have decided to continue and advance our research program through the implementation of replicated single-subject studies.

In addition to the children reported by Millard, Nicholas, and Cook (2008), results from a further six children who received Palin PCI were described by Millard, Edwards, and Cook (2009). Once again, stuttering frequency data were obtained from video recordings made at home while the child played with a parent. These were made once a week for 6 weeks prior to therapy, 6 weeks during clinic therapy, and 6 weeks during the home-based therapy period. The follow-up phase took place 6 weeks prior to the 6-month review appointment and again involved once-weekly video recordings. All six children showed a reduction in stuttering by the end of the study, according to the cusum analyses, and we can be confident that this was associated with the therapy in four cases because the data reached significance in the therapy phases. None of the participants received direct therapy focusing on the development of child strategies. In addition to a reduction in stuttering frequency, the parent rating scales indicated that parents perceived the child's fluency to have improved; they felt more knowledgeable and confident about managing the stuttering and were less worried and anxious about it 6 months after receiving therapy than they had been before.

The combined findings of both the Millard, Nicholas, and Cook (2008) and Millard, Edwards, and Cook (2009) studies indicate that Palin PCI can be effective in reducing stuttering in young children who are at risk of persistent stuttering. The results seem to indicate that approximately two-thirds of children will show a reduction in
stuttering during the clinic therapy or home-based therapy (consolidation) periods and require only the indirect components of Palin PCI. This is similar to outcomes reported by Conture and Melnick (1999). There are also indications that stuttering may be reduced over a longer term in children who have received Palin PCI, although it is not possible within the current designs and methods to attribute this directly to the therapy.

PHASE 4
Within phase 4, researchers continue to define those clients who benefit, and variations to treatment and delivery are explored. Importantly, the research emphasis shifts towards the investigation of treatment effectiveness. Thus, having demonstrated that Palin PCI is effective under optimal conditions, which include being implemented by speech and language therapists who are expert in the approach within a well-resourced, specialist environment, it is necessary to establish whether the approach is effective when implemented in other settings with different subgroups of the clinical population of children who stutter. The Matthews, Williams, and Pring (1997) study described earlier could be considered to be phase 4 research because a non-specialist clinician in a nonspecialized clinical context conducted it. This single-case study was subsequently replicated by Crichton-Smith (2002), who demonstrated a reduction of stuttering to within normal with a 4-year-old child who received Palin PCI. Therefore, there is early evidence that Palin PCI can be successfully implemented by speech and language therapists who have received training in Palin PCI but who are not necessarily specialists in the approach.

PHASE 5
Phase 5 research focuses on the issues of cost effectiveness, client satisfaction, and the effect of therapy on quality of life. The parent rating scales already provide useful information related to these issues and are incorporated into the development of phase 2 and phase 3 research.

SUMMARY
The research at the Palin Centre has developed and advanced with increasing pace over the last 5 years. The framework adopted has helped to structure and prioritize research activities. Careful consideration and experience with a range of methods have resulted in relevant and realistic research designs and protocols. The evidence indicates that Palin PCI can be effective with children who stutter, and this research evidence is used to inform the clinical decisions made within the Palin Centre. However, research evidence is not the only information considered. Expert experience and opinion are highly valued, and informal feedback from clients is regularly sought.

PRACTICAL REQUIREMENTS
TRAINING
As with all therapeutic methods that are not routinely taught within undergraduate or postgraduate education, additional training and supervision are necessary to ensure that Palin PCI is delivered ethically and appropriately. The Palin PCI training course is a workshop that lasts 3 days and is designed to provide trainees with the knowledge and skills they need to carry out Palin PCI in their clinics. The 3-day workshop includes:

- Review of current literature and evidence as it applies to this age range
- Theoretical perspective of the multifactorial nature of stuttering and implications for therapy
- Rationale for the case history and detailed child assessment
- Developing skills in the formal and informal measures of fluency, speech, language, and social communication skills
- Clinical decision making
- Rationale and practical clinical skills for delivering Palin PCI
- Clinical skills in working collaboratively with parents

The training course is an interactive workshop in which trainees are involved in practical and experiential exercises; in the viewing of videotapes of clinicians, parents, and children who stutter; and in role-play activities. The training is evaluated routinely using a standard questionnaire that is filled out before and after training and then 6 months later. The data collated from these questionnaires demonstrate that trainees gain knowledge, skills, and confidence in
managing stuttering and that this has resulted in positive changes in their clinical practice (Botterill, Biggart, & Cook, 2006). Trainees are also encouraged to telephone or email and “troubleshoot” with the team at the Palin Centre.

A new manual (Kelman & Nicholas, 2008) has recently been published that provides a step-by-step guide to Palin PCI and incorporates recent research evidence. This manual, in conjunction with the practical training course described earlier, will equip therapists to carry out Palin PCI as it is conducted at the Palin Centre.

**ASSESSMENT SKILLS**
Clinicians are required to use formal and informal assessments to measure children’s speech, language, and social skills. The ability to undertake a quantitative and qualitative analysis of stuttering using video or audio recording equipment is also necessary. The clinician is also required to take a case history from the parents and then process this information together with the rest of the assessment findings to develop a case summary, which is presented to the parents in clear and accessible terms.

**THERAPEUTIC SKILLS**
Central to the Palin PCI approach is the idea of collaboration and partnership between the clinician and the parent. This involves the therapists drawing on their core counseling skills and listening to and observing the parents carefully so that they can facilitate the parents’ discovery of what they already know and are already doing to help their child. In this way, the therapist elicits and uses knowledge from the parents rather than imparting information, teaching, or offering advice.

**TECHNICAL EQUIPMENT AND SKILLS**
A video camera and television monitor are integral to Palin PCI. A tripod is also useful. A level of competence and confidence is required to operate this equipment.

**ACCOMMODATION**
The therapy room will need to have a range of play materials appropriate to the child’s age and with space for the child to play on the floor or at a table. The room should be sufficiently large for video recordings to be made and viewed. A separate viewing room from which the play can be remotely video recorded can be a useful option.

**ADMINISTRATION**
The following paperwork is required:
- Consent forms for treatment and video recording
- Assessment record forms, including detailed case history form
- Special Time instruction sheet and homework sheet; this records the details of this home-based task and facilitates a discussion at the beginning of each therapy session
- Praise logs to record the specific praise that the parents are encouraged to give to their children each day
- Treatment record forms

Parents are also encouraged to read How to Talk So Kids Will Listen and Listen So Kids Will Talk (Faber & Mazlish, 1980). This is a parenting book that is easily accessible and that most parents find helpful in a variety of ways. The chapter on dealing with feelings is especially relevant for parents who describe their children as very sensitive. The chapter on praise offers parents a way of praising their children that specifically describes the child’s actions and then provides the child with a positive attribute/adjunctive that describes the behavior. An example is: “Thank you for putting your clothes on the chair (description) that was very helpful/thoughtful/responsible (attribute) of you.” Parents are often aware of the effect confidence has on their child’s fluency and are pleased to notice the difference when they add these details to the praise they already give to their children.

**TIME REQUIREMENTS**
Palin PCI involves more assessment time than other approaches; however, less time is usually required in the treatment phase. The child assessment and analysis takes approximately 90 minutes, and the parent interview takes an additional 90 minutes. These 3 hours ensure an individually tailored approach to the child’s and family’s specific needs.

Treatment then involves six 1-hour therapy sessions (including 5 minutes for record keeping).
during the first 6-week phase, followed by six 10-minute contacts (by telephone, letter, or email) during the consolidation phase. A 1-hour review session follows the consolidation period. Thus a total of 8 hours is required to deliver a program of Palin PCI over a course of 3 months.

Following this, the child is monitored every 3 months for 1 year. Some children require further direct fluency input, which can be delivered in up to six once-weekly therapy sessions. Children who present with concomitant speech or language problems may receive further therapy targeting these specific difficulties.

**KEY COMPONENTS**

**OVERVIEW**

The main focus of the Palin PCI approach is the child and his or her profile of skills. The aim is to facilitate natural fluency within the child’s usual social environment by building on the parents’ knowledge of what helps fluency and augmenting behaviors that are already in evidence. The approach is based on the belief that parents can and do influence their child’s communication skills and confidence and that, in the case of young children, they are pivotal to the process of change (Kelman & Nicholas, 2008).

The approach is flexible and adapted according to each child’s individual and changing needs. For most children, the goal of Palin PCI is to achieve fluency within normal limits (<3% SS) or until the parents are no longer concerned. For children with more complex needs, the intention is to establish family strategies that support the child’s natural fluency and develop the child’s confidence. For the small proportion of children who continue to stutter despite intervention, the approach aims to minimize the impact of the stuttering on both the child and the family.

During Palin PCI sessions, parents view video recordings made while they are playing with their child in the clinic. Drawing on the shared understanding of their child’s needs, parents are guided through a process of identifying and augmenting those interaction and communication styles that they judge will promote their child’s fluency. Parents are also introduced to ideas and strategies that build confidence and self-esteem. In addition, when parents raise concerns about the impact of other issues such as tiredness and lack of routines on the child’s fluency, these are addressed as part of therapy.

After the multifactorial assessment, Palin PCI is implemented in three distinct stages. The first stage consists of six once-weekly, clinic-based sessions that both parents (as appropriate) attend with their child. In the second stage, the Consolidation Period, parents continue to implement Palin PCI for a further 6 weeks in structured home-based practice sessions that are closely monitored by both parents and the therapist. The third stage starts with a Review Session in which further clinical decisions are made based on progress reports from parents and formal reassessments in the clinic. In some cases, supplementary clinic-based therapy sessions may be offered for further Palin PCI, language or phonology therapy, or direct fluency therapy, as appropriate. All children are monitored for at least 1 year after therapy.

**MULTIFACTORIAL ASSESSMENT**

The multifactorial assessment comprises a thorough evaluation of the child’s strengths and underlying vulnerabilities within the context of the family, including the child’s receptive and expressive language, articulation, speech rate, social communication skills, and general presentation. Detailed case history information is gathered from both parents to identify developmental, familial, psychosocial, health, and personality factors that they consider to be influencing their child’s stuttering, and the parents complete the parent rating scales.

At the end of the assessment, parents are given a formulation or summary of the assessment findings. This formulation aims to provide parents with a clear understanding of the multifactorial nature of stuttering with particular reference to the factors that are relevant to their child’s current difficulties. It provides the rationale for the recommendations that are made and the therapy that is considered most appropriate for the child’s difficulties. Throughout the process, great emphasis is placed on developing the client-clinician relationship and helping parents make the best use of their own problem-solving and management skills.
STAGE 1: WITHIN CLINIC SESSIONS

Initial Session: Introducing and Setting Up Palin PCI

The goal of the initial session is to establish an open dialogue about stuttering and fluency, to develop mutual responsibilities in the therapy program, to review the assessment findings and clarify any questions, to set up Special Time contracts, and to ensure that parents have a clear understanding of what therapy will involve.

Video and treatment consent forms are signed, and an initial 5-minute video recording is made of each parent playing with their child within the clinic setting. It is important to explain that the video will be used as a basis for exploring ways in which the parents can build on and enhance their child’s fluency in future sessions. Parents’ initial self-consciousness about the video camera is quickly offset by their child’s naturalness and curiosity about new toys and activities. Between the sessions, the therapist will view the video and identify examples of interactions that facilitate fluency. The parents will watch the video at the beginning of the next session.

Next, parents are introduced to the concept of Special Time. These are designated home practice sessions with their child that continue throughout the therapy program. They consist of a fixed 5-minute playtime that each parent completes individually with the child. Parents are asked to agree to a set number of Special Times per week, with a minimum of three and a maximum of five. During the week after the first session, parents establish the routine of Special Times for the agreed number of sessions.

The aim of Special Time is to provide parents with a designated time to practice implementing an interaction target in a relaxed, one-on-one, play setting. Following Special Time, parents/caregivers complete a homework sheet, which helps them to reflect on their target in a structured way. The therapist uses this record sheet to monitor how the parents are implementing the targeted change.

Second Session

The initial task in this session is to make sure that the Special Time routine has been successfully established. When, from time to time, parents discover that they have committed themselves to more than they can manage, their contract is adjusted appropriately. If parents have been unable to do Special Time, this is discussed constructively to discover what is getting in the way and to problem solve how this can be resolved. The Palin PCI program only starts when the minimum number of Special Times is established because they are the “vehicle of change” within the home environment.

The therapist and parents then revisit the assessment summary to focus on the factors that seemed to be affecting the child’s fluency and review what the parents already know that seems to help the child. For example, the assessment may reveal that the child has well-developed language skills but his speech sound skills are still developing, that he stutters most when he is competing with his siblings to speak, and that it seems to help when he can “take his own time.” The first two video clips on the publisher’s website for the book (thePoint) illustrate this process with parents.

See Video Clip 1, Evan’s mother and father are discussing the factors that they think have contributed to Evan’s current difficulties as revealed in the assessment completed 2 weeks previously. This is followed by a discussion about what they think Evan needs in light of this to help him with his fluency.

See Video Clip 2, Elaine asks Jayneequa’s mother what her instincts tell her that Jayneequa might need to help with her fluency.

The next step in this session is to use the videotape made in the clinic the previous week to begin to identify interaction styles that support the child’s fluency by looking at examples from the tape where parents are already doing things to help. These might include helping the child to take his time by following his lead in the play, by encouraging pauses, or by having an unhurried manner. The next clip on the DVD shows a clinician helping a mother identify a fluency-facilitating behavior that she is already engaging in.

See Video Clip 3, Jayneequa’s mother has just watched the first video of her playing with Jayneequa. Elaine asks her what she noticed that seemed to be helping. She notices that she is patient and gives Jayneequa time. Elaine then asks her how this helps Jayneequa’s fluency.
Each parent observes their own section of the interaction video, and the therapist asks them individually to comment on aspects of their interaction with which they were pleased. Starting with this encouraging approach is reassuring and sets the stage for a positive experience. Initially their observations might be quite general, for example: “We both seemed to be enjoying the game” or “We were doing lots of laughing!” The therapist’s role is then to guide the parents to notice the behaviors that they are already engaged in that support the child’s fluency needs and to reinforce these observations. Some parents find it difficult to see what is going well and focus instead on more negative aspects. Watch the next video clip to see how a clinician can help a reluctant parent find something quite helpful he is already doing.

Video Clip 4 demonstrates how to turn this around for a parent. Dylan’s father is finding watching the video hard and is describing how nervous and unnatural he felt. Elaine asks what was going well, and he finds this question difficult to answer. She selects a piece of the video and helps him to look again and focus on something positive. They work it out together until he can see how following Dylan’s leads helps to slow down the pace of the interaction to suit Dylan. They then set this as a target for Special Times.

In addition, the therapist may prompt the parents when necessary by highlighting key moments during the video—for example, by drawing attention to pauses in the interaction when no one is talking:

Therapist: “What is happening here?”
Parent: “Nothing, no one is talking.”
Therapist: “With your child’s needs in mind, how will pauses like that be useful?”
Parent: “It helps calm things down.”
Therapist: “What difference does that make?”
Parent: “It slows us both down and lets him know there is no hurry. He can respond or not in his own time.”
Therapist: “And how does that help?”
Parent: “Well…he’s usually more fluent when that happens.”

Parents often find it easier to be critical of themselves when they watch the video than to see what is working well. Therefore, it is important for therapists to develop ways to help parents focus on the things they are doing that support the child’s fluency.

Parent: “I can see that I’m busy doing it all for him.”
Therapist: “And when you are not doing it for him, what is happening?”
Parent: “I am watching and waiting for him to do it.”
Therapist: “And how does that help?
Parent: “Well, he gets to do it for himself.”
Therapist: “And what difference does that make?”
Parent: “He finds out he can do it himself and that helps his confidence.”
Therapist: “And when he’s more confident?”
Parent: “He’s often more fluent.”
Therapist: “So let’s look for the times when that is happening.”

General questions such as “What are you doing that seems to help?” or “What is working well here?” provide a general orientation and can be effective in eliciting observations from some parents. For others, the therapist will provide more specific guidance and orientation by referring to particular moments captured on the video. The therapist uses carefully focused questions to help parents notice supportive behaviors that are already present, no matter how brief they might be. Pausing or replaying sections of the video and using questions (such as “What did you do there that worked well?” “What happened when you did that?” “What difference does that make?” or “How does that help his/her fluency?”) help parents to observe their interaction in a positive way that links it specifically to their child’s needs.

As explained earlier, the process of watching the video, discussing observations, and setting goals is done on an individual basis with each parent. Parents quickly learn to observe their videos objectively. While each parent is party to their partner’s discussion with the therapist, they are not invited to comment on each other’s videos. However, if they wish to do so, they are reminded that their comments should be positive and constructive.

The therapist uses facilitative questions to elicit ideas or thoughts from the parents about why these particular interactions might support their child’s fluency. For example, having observed a
noticeable pause before responding to the child, a question such as “How is that pause helping?” makes parents consider the positive consequences of their behavior and ensures that a clear rationale is established for encouraging this particular interaction style. Each parent then individually selects an interaction style that he or she would like to try to perform more often; this is briefly practiced in a video-recorded play session with the child and then played back on the video. When each parent is confident that they know what they are targeting and why, the identified parent behavior becomes a goal for practice during Special Time at home for the coming week.

The interaction style that parents notice most often as helpful in increasing fluency seems to be related to the child leading the play and setting the pace of an interaction. Once a parent notices this and waits for the child to take the lead more often, the child then sets the play agenda, the language level, and the pace of the interaction. The more the child takes the lead, the more the parent needs to observe and listen in order to follow the child and the easier it is to match their own level of language and pace to that of the child. Parents also begin to notice that making a change in one aspect of their interaction style often has an effect on another aspect, for example, resulting in changes in patterns of turn taking or in the balance of turns or the number of pauses that occur.

As parents identify target behaviors that they think are helpful and would like to do more often, they also explore with the therapist how increasing these targets might also support the child’s communication needs. It is important to note that parents rarely have more than three targets throughout the therapy because change in one target area usually involves shifts in another; for example, targeting an increase in the use of pauses often results in shorter, simpler sentences and an overall reduction in rate.

Once parents are satisfied that the targets they are working on are having the desired effect (i.e., a reduction in the type or frequency of disfluencies within the Special Times), they are encouraged to begin to identify other key times during the day when they can interact with the child in ways that they know facilitate the child’s fluency, for example, on the walk home from school, in the car, or at mealtimes. These are in addition to their regular Special Times and can also be logged on the homework sheets along with Special Time. (See Figs. 5.2 and 5.3 for an example of how these sheets might be organized and completed.) Parents continue to make comments about the effect that this intervention has and gradually increase the occasions when they monitor their interactions until it becomes routine and natural.

Parents/caregivers leave every session with a homework sheet that identifies their targets and the number of sessions of Special Times they have agreed to undertake. They fill in their homework sheet at the end of each Special Time and return to the next session with homework completed and comments made about their experience of putting the targets into practice.

Structure of Sessions 2 to 6
Each treatment session includes the following components. First, the therapist checks the feedback from the parents’ homework sheets and answers any queries about Special Time targets and their impact. Then, a new video is made of each parent playing for 5 minutes with their child, putting into practice their interaction targets. The therapist and the parents watch the new interaction video and have a discussion about the video that focuses on the positive changes that will support their child’s communication needs. Questions are asked, such as “What is going well?” Follow-up questions are also asked, such as “What else can you see that is helping?” and “What difference does that make?” Parents then identify a new goal for their Special Time and take away a homework sheet to complete. The next video clip illustrates what this scenario might look like.

See Video Clip 5, Evan’s parents are in session 3. They talk about the targets they set for themselves and discuss what they have learned from the exercise. Evan’s father was trying to match Evan’s rate of talking and to pause more often. He talks about realizing that Evan’s natural rate of speech is very slow.
The mother’s targets were leaving gaps in the interaction and not feeling the need to fill in the pauses. The parents then watch the video. Willie asks them what they saw that was going well. She reinforces their ideas and continues with “What else?” and “How does that help?” or “What difference does that make?” Finally, Willie helps both parents identify a target for the coming week.

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTIVITY</th>
<th>COMMENTS ABOUT THE TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5.2.** Sample of sheet used to record observations made about Special Time activities conducted as part of treatment homework and a completed example showing how the sheet is used.
**Other Components of Palin PCI**

In addition to the major components described earlier, sessions 2 to 6 routinely incorporate topics such as openly acknowledging stuttering, building confidence, turn taking, dealing with feelings/emotions, and managing problem behavior. The discussion of these topics is facilitated by referring to specific chapters in the

---

**SPECIAL TIME TASK SHEET**

<table>
<thead>
<tr>
<th>NAME OF PARENT:</th>
<th>Mary</th>
<th>NAME OF CHILD:</th>
<th>Jo</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF SPECIAL TIMES:</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TARGETS FOR SPECIAL TIME:** follow Jo's lead, use more pauses

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTIVITY</th>
<th>COMMENTS ABOUT THE TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>22/01/08</td>
<td>Played shops</td>
<td>I waited and watched for a bit so I could follow what Jo was doing rather than doing my own thing. It was hard pausing more as I love to talk but I think I managed it a bit more than usual, I felt more relaxed.</td>
</tr>
<tr>
<td>24/01/08</td>
<td>Played with her dolls</td>
<td>She loves to play dolls and got quite bossy with me telling me what to do! I did as I was told and she loved it!</td>
</tr>
<tr>
<td>26/01/08</td>
<td>Played tummy ache game</td>
<td>Jo showed me how to play it and I joined in. I think I am better at leaving pauses and now find it easier and it all feels a bit more like there is more time which is good.</td>
</tr>
</tbody>
</table>

IN ONE SENTENCE, WRITE DOWN WHAT YOU HAVE LEARNED FROM THIS WEEK'S ACTIVITIES:

---

**Figure 5.3.** Sample of completed Special Time task sheet.
book by Faber and Mazlish (1980) in which parenting skills are described in a clear and accessible style. The parents then record examples of praise that they give the child on a daily basis and note the child’s response on a praise log, which is returned weekly along with the homework sheets.

If, during the assessment, parents highlighted concerns related to child management or the establishment of routines (e.g., bedtime routines) that they feel are affecting the child’s fluency, additional strategies are discussed and included in the 6-week program. Therapists typically talk through the situation and then help the parents problem solve alternative ways to manage the problem. These may include negotiating some family rules (e.g., for bedtimes or turn taking), using praise and/or a reward system, setting clear boundaries, and being consistent.

**STAGE 2: THE HOME-BASED CONSOLIDATION PERIOD**

Session 6 of Palin PCI begins with the same format as previous sessions followed by a discussion about the next 6 weeks, which is referred to as the home-based consolidation period. During these 6 weeks, the parents continue to do Special Time with their child at home, implementing their targets and completing the homework sheets. They also continue to incorporate activities for developing the child’s confidence, for promoting turn taking within the family, and for any other relevant management issues. Although the family does not attend the clinic during the consolidation period, they continue to send in their homework sheets so that the therapist is able to monitor progress and respond by letter, telephone, or email. If there is any deterioration in the child’s fluency during this time or if other problems arise, the parents agree to telephone the therapist as soon as possible. It is also agreed that if the therapist does not receive the homework sheets, contact will be made with the family. A review session is held at the end of the 6-week consolidation period.

**STAGE 3: THE REVIEW SESSION AND CLINICAL DECISION MAKING**

In the Review Session, parents complete rating scales and discuss the Special Times and any other matters that may have arisen during the consolidation period. They also have an opportunity to share their observations of the changes they have made and the effects of these changes on the child’s fluency and communication skills. A formal fluency analysis is made from a tape-recorded speech sample, and a parent-child interaction video is made and viewed with both parents. This provides objective evidence of progress and gives the parents an opportunity to consider the impact of the changes they have made over the 6 weeks. The therapist reinforces the progress and invites a discussion about the factors that the parents consider to be particularly important in increasing the child’s fluency and confidence and how they will continue to make progress.

The results of the assessment, the parents’ questionnaires, and the feedback from the weekly homework sheets will help the parents and the therapist decide whether they are ready to go on to the Monitoring Only phase. The criteria for moving to Monitoring Only are a combination of factors, such as a noticeable increase in fluency and a decrease in the amount and/or severity of the stuttering, an increase in parental confidence, and a reduction in parental concern. At this point, we expect that two-thirds of children will go on to Monitoring Only, and the parents will continue regular Special Times and complete homework sheets that they will continue to send in. They will be reviewed again at intervals negotiated with the family, usually 6 to 12 weeks, and for a period of at least 1 year after therapy.

Children who are not improving sufficiently or who have reached a plateau and whose parents continue to be concerned will start sessions of direct fluency work within the clinic, which will be supported by parents during home practice sessions in addition to their Special Time. In the section on the theoretical basis of Palin PCI, we indicated that we believe some children have a greater vulnerability to stuttering. It may be that these children have a greater physiologic “weighting” for persistent stuttering and need support to manage their speech motor control systems more efficiently. Alternatively, it may be necessary to address any identified mismatches in their speech, language, and/or motor systems by working directly on those domains.
ADVANTAGES OF PALIN PCI
There are a number of advantages to Palin PCI. First, it can be implemented with children for whom direct therapy would not be indicated. For instance, it can be used with very young children and is not reliant on a child having well-developed attention, listening, cognitive, meta-linguistic, or self-monitoring skills.

Second, although the approach encourages parents to acknowledge their child’s stuttering, the main focus of the initial stages of the program is not on the child’s speech. This focus has the advantage that it can be used with children whose temperament is described as highly sensitive and who may interpret direct therapy as suggesting that stuttering behavior is unacceptable.

Third, Palin PCI lays the foundations for those children for whom the direct therapy component of the program is also recommended. The insight, knowledge, and skills gained by parents during the assessment and therapy process play an important role in helping the child to transfer the speech management skills learned during the direct therapy stage of the program.

SUMMARY
The key component of the Palin PCI approach is the use of video feedback to help parents develop strategies to facilitate their child’s fluency, based on their unique profile of skills. These strategies are practiced at home in structured Special Time sessions, and then generalized and combined with other strategies, such as turn taking and confidence building. The family attends six clinic sessions and then continues the program in a 6-week home-based Consolidation Period, followed by a review and further direct input or other therapies as necessary or by moving into a Monitoring Only stage.

ASSESSMENT METHODS TO SUPPORT ONGOING DECISION MAKING

INITIAL ASSESSMENT TO SUPPORT DECISION MAKING REGARDING INTERVENTION
The assessment protocol encompasses the cognitive, linguistic, social, emotional, and physiologic components of the child’s stuttering. The information is collected during a comprehensive child assessment and a detailed interview with both parents.

The assessment protocol includes the following:
- Formal and informal measures of the speech, language, and social communication skills of the child.
- A recorded speech sample is transcribed and used to calculate a percentage of syllables stuttered (%SS) and to make comments about the type and duration of stuttered moments.
- An interview to gauge the level of the child’s concern and his or her perception of the problem.
- A video recording of each parent/caregiver playing with the child. This provides a naturalistic sample of the child’s speech while interacting with each parent/caregiver and allows further insight into the child’s skills. It also provides an initial record of the parent–child interaction style.
- A detailed case history from both parents (as appropriate) to explore the history and development of the stuttering and other pertinent issues within the family (e.g., difficulties managing family routines such as bedtimes, getting to school in the morning, or sibling rivalry).
- Parent rating scales provide an insight into their level of knowledge, concern, and confidence in managing the child’s difficulties (Millard, 2002).

This detailed assessment procedure ensures that a profile of the child’s strengths and needs within the context of the family can be obtained. The information from all these sources provides the basis for the formulation. This is a summary of the assessment findings and the factors that we have identified that seem to be relevant to the onset and development of their child’s stuttering. This summary is discussed with the parents and explained within the context of the multifactorial framework of stuttering. This is important in establishing a shared understanding of the problem and encouraging the collaborative relationship that is fundamental to Palin PCI. Parents and children are also encouraged to acknowledge and discuss stuttering openly.
from the beginning with an implicit rationale that talking about difficulties reduces anxiety and makes them easier to manage.

Once it has been established that intervention is appropriate, the information from the assessment indicates which areas should be addressed in the therapy program.

Palin PCI routinely involves parents in considering their interaction and behavior management strategies. It also involves the child in developing speech-related strategies. Although the delivery of Palin PCI will be similar across families in terms of number of sessions and session plan, the content of the sessions will vary, depending on the individual needs of the child and the family. These are determined in consultation with the parents and in response to individual needs identified in the assessment.

**ONGOING ASSESSMENT TO MONITOR TREATMENT EFFECTIVENESS**

The program is delivered as a 6-week package of once-weekly sessions followed by a 6-week consolidation period during which the Special Times are continued by the parents at home. Progress is monitored throughout the 12 weeks through the parents’ written and verbal reports of the child’s fluency, confidence levels, and the family’s progress with other strategies. Written homework sheets, which record the interaction targets identified by each parent during the therapy sessions, are completed by the parents each week and brought or sent to the therapist for monitoring and feedback. Parents are also encouraged to provide verbal feedback about their child’s progress and their own perception of how the therapy is going. During the clinic sessions, a video recording is made, providing a sample of the child’s fluency during play and a record of the changes in the parent–child interactions. The therapist also observes the child’s fluency levels throughout the session. The combination of this verbal and written parental feedback, together with the therapist’s observations, enables decision making about next steps in treatment and about the appropriateness and effectiveness of the intervention.

At the end of 12 weeks, the family returns to the clinic for a reassessment and review of the child’s progress. As before, this includes a recorded speech sample from which an analysis of the fluency is made and another completion of the rating scales by parents. A further video recording is made of the parent and child interacting. Based on these reassessments and discussions with the parents, decisions are made regarding the need for further therapy and, if it is needed, what form it should take. The options include working with the child more directly on the stuttering or therapy directed at other areas of difficulty in the child’s speech and language skills that were identified during the comprehensive assessment and that are not resolving (e.g., a phonologic problem).

Therapy sessions are no longer indicated when the level of stuttering is within normal limits (<3% SS) and/or the parents are no longer concerned, as recorded in the clinic measures, and the family is reporting a similar pattern at home. Parents would also be reporting reductions in their anxiety about the problem and higher levels of confidence in their ability to manage the stuttering, as indicated by their verbal feedback and the rating scales.

Most families reach this stage at the end of the 12 weeks and continue to be monitored and reviewed at regular intervals as agreed by the parents, usually every 6 to 12 weeks for up to 1 year. The same assessments are completed at the review sessions for at least 1 year. If the parents express concerns, a review appointment will be made earlier to determine if further action needs to be taken.

**TAILORING THE TREATMENT TO THE INDIVIDUAL CLIENT**

Therapy programs provide a useful structure for clinicians, guiding them through a series of steps and treatment stages. However, a one-size-fits-all approach is unlikely to meet the needs of all clients, and this is certainly true with children who stutter. Most researchers and clinicians agree that no two children who stutter are the same; therefore, each child will require treatment to be tailored to his or her specific needs.

As stated earlier, Palin PCI starts with a detailed assessment from which an individualized treatment program is devised. The child’s needs, together with the family’s circumstances,
dictate the specific components of the therapy. This means that personal and cultural factors for the child and family are integral to the assessment and therapy process.

To ensure that children and families from diverse cultural and linguistic backgrounds have access to this approach, it is frequently necessary to arrange for advocates and/or interpreters to assist in assessment and therapy. At the Palin Centre, professional interpreters who have been appropriately trained are used, rather than family members, to ensure that interpersonal factors are not interfering with the information that is being exchanged. Interpreters can also be invaluable in providing the clinician with general information about a particular culture; for example, attitudes to disability, roles of mothers and fathers, and expectations of therapy. However, these generalizations about a culture must always be regarded as such, as each family will have its own unique set of attitudes and customs.

In a similar way, it is important that families have equal access to Palin PCI, whatever their personal circumstances may be. When there are two parents with the child at home, both are involved in the assessment and therapy program. When one parent is living away from home (e.g., working or studying abroad), therapy would proceed with the parent who is available, and then further input would be arranged when the other parent is at home. If parents have separated or divorced but are both caring for the child, they are asked whether they want to attend sessions together or separately. In the case of single-parent families, if there is a significant other caregiver (e.g., a new partner or a grandparent who the parent wishes to include), they are invited to participate in sessions. If another person cares for the child (e.g., foster parent, child minder, nanny, or grandparent), this person can be involved in assessment and therapy.

Other personal factors may have an impact on the timing and nature of therapy. Parents who are experiencing relationship issues or health, finance, or housing concerns may find it difficult to engage with the therapy process because these issues may be a greater priority for the family. Clinicians may be able to provide support, give practical guidance, or help parents to find support elsewhere. In circumstances like these, it is important to be realistic about expectations of what therapy can achieve. For parents, taking on new tasks as a part of therapy is always a challenge, and to try to do this in the context of other stresses requires sensitivity and flexibility to reach a successful conclusion.

As with all speech and language therapy, there are some cultural groups who find aspects of Palin PCI challenging. For example, there are some parents who may not be accustomed to the idea of playing with toys and do not usually engage in imaginative play with their preschool child. However, they may be encouraged to consider other activities they engage in at home that are also suitable for Special Times, such as a cooking activity or going to the park together. Furthermore, cultural differences may exist with regard to use of eye contact, taking turns to speak, or sleep regimens. However, these can usually be managed within the framework of Palin PCI because the fundamental principle of the therapy is to work with the family to identify what works for them and how this can be adapted to support the needs of the child who is stuttering.

One of the strengths of Palin PCI is that it is based on the premise that parents instinctively know what helps their children and are already acting on this knowledge much of the time. Palin PCI helps them to do more. Therefore, they are not being asked to stop doing something or to start using a new and different style. This means that whatever a parent’s cultural or personal style may be of interacting with and managing their child, they will be developing the aspects of this that they understand to be most helpful to their stuttering child. In this way, Palin PCI has, at its core, the means to be sensitive to individual families’ needs, both culturally and personally.

APPLICATION TO AN INDIVIDUAL CHILD

M and his parents came for a full assessment of his fluency when he was age 3 years 8 months. He started to stutter gradually at the age of 2.5 years. He was reported as talking late with a limited vocabulary compared with his peers, and his mother said that “he had never spoken clearly and his sounds weren’t right.” M was referred to the Palin Centre by his local speech and language therapist who had been offering advice
and monitoring over an 18-month period. M's mother said that during that time, his fluency had been patchy and that each time stuttering re-emerged it stayed longer. She said that the stuttering had become increasingly severe over the last 6 months with no periods of remission, and she noticed that excitement and tiredness made the stuttering worse. She also reported that he had been a confident little boy but that this confidence had been decreasing over 6 months. At the time of the assessment, she noticed that he was hesitant in new situations and talking less and that other people were beginning to talk for him. M's mother described herself as becoming increasingly anxious as she watched him struggle to get the words out, and despite following all the advice she had been given, nothing she did seemed to help. She was also worried that he might get teased or bullied when he started school. His father had a more laid back approach to M's stuttering, believing it would get better in time.

There was a maternal family history of stuttering. M's grandfather stuttered throughout his life, and an uncle stuttered until he was a teenager but subsequently recovered.

During the initial assessment, a speech sample was video recorded and analyzed, identifying a rate of 6.4% syllables stuttered. There were repetitions of up to 12 times, prolongations that lasted up to 6 seconds, and blocks accompanied by facial tension.

When asked about his talking, M said that sometimes “it was hard for him to say things.” His parents said he would refer to his “bad voice,” and they had noticed times when he would give up or change words that were proving hard to get out. M’s parents described his speech on the day of the assessment as being “in a good phase” and that his stuttering was often much more severe. On a rating scale of 0 to 7, where 0 is normal and 7 is very severe, both parents rated M’s speech as 5 on the day of the assessment (in a good patch) and 7 at other times. In terms of their worry about the stuttering, they rated themselves as 6, where 0 is not worried and 7 is extremely worried.

During the assessment, The British Picture Vocabulary Scale (BPVS) (Dunn et al., 1997), a formal measure of M’s receptive language skills, was administered and demonstrated that he had above-average scores for his age. The Renfrew Action Picture Test (Renfrew, 1997), an expressive language test, placed him above average for giving information but only average in his knowledge and use of grammatical skills. Furthermore, there was evidence of immaturities in his speech sound system. At age 3:8, he was still fronting sounds such as /k/ and /g/ and reducing blends such as “weet” for “sweet,” which sometimes made his speech difficult for people to understand. M’s attention span was observed to be short. In terms of temperament, M was described by his parents as a sensitive child who likes to get things right and is easily upset.

These assessment findings identified the factors that seemed most relevant in the development of M’s stuttering and indicated his level of vulnerability to persistent stuttering.

M’s level of vulnerability to persistent stuttering was judged to be moderate to high, based on the following indicators:

- History of delayed speech and language development
- Mismatch in speech and language skills
- Time since onset of stuttering
- Stuttering getting worse over time
- Family history of stuttering
- Parental anxiety
- Child’s sensitivity and reactivity to errors

On the strength of this assessment, it was decided to offer the family a course of Palin PCI. M’s age, his short concentration span, and his sensitivity to the breakdown in his fluency made this a more appropriate option than a more direct speech approach at this stage.

Palin PCI was tailored to M and his family’s needs by focusing on the following areas:

- Establishing Special Time
- Building M’s confidence
- Helping M manage his feelings more easily
- Monitoring tiredness and bedtime routines
- Interaction strategies aimed at helping M give himself sufficient time to think and plan what he is going to say

**SESSION 1**

Session 1 started with a reminder of the results of the assessments and M’s particular needs, such as having complex things to say and needing more time to plan, structure, and produce them. M’s
parents were also concerned about his sensitivity and were wondering how best to handle his worries. They reported that after the assessment, they were already being more open about his struggles with words and they had noticed that they had all been more relaxed about it.

Special Time was introduced, and the number of sessions was negotiated with M's mother, who decided she could do six a week, and M's father, who agreed to do four. A video was made of each parent playing with M for 5 minutes in the clinic.

The parents were also interested in reading about children's feelings, and a chapter called “Helping Children Deal with Their Feelings” in the book by Faber and Mazlish (1980, pp. 1-47) was recommended.

SESSION 2
After checking that the homework had been completed, M's parents were invited to consider what M needed based on their understanding of his current skills in order to be more fluent. They said they thought “his brain was going faster than his mouth” and he needed to give himself more time to plan and structure the complicated ideas he was often trying to express. They then watched the video made the previous week. They were encouraged to look at their communication with M and notice the things they were doing that seemed to help. M's father found this difficult at first, but once directed to look at a particular section, he noticed that the pace of the conversation was relaxed and unhurried and that there were often pauses when no one spoke. He also noticed that they each had an equal share of the turns. These observations were discussed in terms of how they might help support M's fluency. When asked to consider a target that he would like to concentrate on during his Special Times, M's father said that he thought comments worked better for M than questions, and so he would concentrate on making more comments. M's mother noticed that she was pausing at times, had good eye contact, and was sitting at his level and opposite him so she could see his face and he could see hers. She decided that it helped when she paused and followed M's leads in play, and she decided to work on following his leads more because this would help him dictate the pace and focus of the play. These targets were also discussed in terms of M's identified needs and how they might help him with his fluency, his language, and also his confidence.

The chapter on helping children deal with their feelings from Faber and Mazlish (1980) was discussed with the parents, and they decided to implement some of the strategies suggested in the book, such as listening, acknowledging his feelings, and resisting the temptation to give advice.

The targets for the week included to follow M's leads for the mother and to make more comments instead of questions for the father.

SESSION 3
Both parents had completed their homework but were worried that they had not been able to implement their targets as well as they would have liked. However, once they had made a new video and looked at it, they realized they were doing much better than they thought. M's father noticed that he was making many more comments and pausing and pacing himself in a way that he could see was helpful to M. He thought that his new target could be to use shorter sentences that matched M's more often because he could see how that might help M keep his language simple and increase his fluency.

M's mother was pleased with her ability to follow his lead and also thought she was pausing more and matching his rate better. She had become aware that M's natural rate was slow and that he seemed to need the extra time.

M's parents were also keen to help build M's confidence, so the chapter on praise from Faber and Mazlish (1980) was recommended.

The targets for the week included matching M's rate of speech for the mother and matching M's sentence length for the father.

SESSION 4
Under normal circumstances, six consecutive sessions would be arranged. However, for M's family, the fourth session came after a short break because the family had been away. There had been an increase in stuttering for several days over this period. M's parents reported that they believed this increase was due to excitement, tiredness, and lack of the normal routines. They reported that they had managed the situation very differently this time because they knew what to
do. They made efforts to restore the normal routines and get M to bed on time. As a result, when they came for the session, they felt that M’s speech was beginning to get back on track. They made a video and were able to reinforce themselves for the changes they could now see in their communication styles. The mother was aware that her comments were more helpful than questions, and the father noticed that M responded well when he followed his leads in play.

The targets for the week included making more comments for the mother and following M’s lead more often for the father.

SESSION 5

When asked to indicate what was going well concerning their son, both parents were pleased to report that they were noticing more fluency, especially in their Special Times. They said they were more relaxed about M’s speech and feeling more confident about what they were doing. They also reported feeling more comfortable with the changes they were making and the impact these were having. Both parents had read the Faber and Mazlish (1980) praise chapter. Although they were aware of the importance of praise and felt they were quite good at praising generally, they could see the added value of the specific praise described in the chapter. They agreed to praise M once a day in this way and record it on the praise log. They made a new video and reinforced the strategies that were going well, of which there were many; they also commented that M was often more fluent during the Special Times. Both parents decided that their current three targets were sufficient.

SESSION 6

This session followed the same format as before and included a discussion about how to continue working on their targets during the home-based Consolidation Period.

After 6 weeks, they returned for a reassessment of M’s speech, and the parents again completed the parents’ rating scales. M’s fluency had increased, and both parents were pleased with the progress he was making. They were more confident in managing his fluency. In fact, they were sufficiently confident to want to continue on their own, sending in homework sheets with occasional monitoring over the next 3 months.

Figure 5.4 tracks M’s stuttering over time. These measures were obtained from 10-minute video samples of M interacting with his mother at home in a play session. The tapes were collected at weekly intervals for (a) 6 weeks prior to therapy to establish a baseline, (b) 6 weeks during therapy, (c) 6 weeks during the home-based consolidation phase, and (d) 6 weeks after the consolidation. The next six occasions were collected at intervals of approximately 6 weeks. The increase in stuttering in phase (b) was associated with considerable excitement over a holiday break. The two increases in phase (d) were associated with starting nursery school and settling in. M took a little time to settle in, but his parents felt very comfortable about seeing him through this time without further help.
CASE STUDY

P was 4 years 2 months old when the family was referred to the Palin Centre for an assessment. She had been stuttering for 18 months, and her parents were very concerned because it was not getting any better.

The child assessment indicated that P had above average verbal comprehension. However, her expressive language scores indicated that she had some difficulties with planning and organizing complex grammatical structures and had specific difficulties with word retrieval. She was aware of her stuttering and had no strategies for managing it. She said that sometimes it was “hard to get the words out” and that it made her feel “a bit upset.”

The interaction video demonstrated that P’s parents were supporting her fluency in a variety of ways, some of which could be built upon to address her particular difficulties, such as increasing the use of pauses, reducing the pace of interactions, and following P’s leads more.

During the parent interview, P’s parents said she had started talking later than her sisters and that her speech had never been very fluent. They said they were worried because the stuttering had changed and P was now getting stuck at times and screwing up her face in an effort to get the words out. They said that her speech was most fluent in one-to-one situations and when there was no time pressure. She had two articulate older sisters and a younger brother, and there was a strong family history of persistent stuttering on both sides of the family. She was described by her parents as sensitive, a worrier, and easily upset by little things. The family saw a therapist when P was 3, and they were advised that she was too young for therapy and her stuttering was quite normal at that age. They were told that they should not draw attention to it and it would probably go away.

P’s parents rated her stuttering severity as 5 out of 7 on a 7-point scale and rated their worry about her stuttering as 6 out of 7 on a 7-point scale. They identified turn taking as an issue in the household and were worried about how to handle it fairly. They had been trying to make everyone stop and wait for P, but the siblings were not so accommodating. They also reported that P’s speech was worse when she was tired, under pressure, or the center of attention. P’s parents talked about the difficulties they had organizing routines such as getting the children to bed on time. They said that P needed her sleep and often went to bed later than they felt was good for her.

The parents said they wanted to understand what they could do to help and for P to get some help “so she doesn’t struggle so hard to get the words out.”

CASE STUDY QUESTIONS

1. What factors in the case history indicate that this child is at risk of persistence?
2. What role might parental anxiety play in the management of early stuttering?
3. How might following a child’s lead influence the interaction between parent and child?
4. How is transfer managed in Palin PCI?
5. What factors should be considered in the timing and nature of more direct work on fluency?

FUTURE DIRECTIONS

TRAINING

The Palin Centre has a comprehensive training program and offers postgraduate training in Palin PCI across the United Kingdom (UK). As a result, Palin PCI is used extensively in speech and language therapy clinics throughout the UK as a standard package of care for early stuttering. This training program is being extended outside the UK into European countries and the United States.

APPLICATION OF PALIN PCI TO OTHER DISORDERS

The Palin PCI package of care has been modified (Kelman & Schneider, 1994) and is currently offered to children with speech and language delay in many Early Years Centres in the UK. It has also been further adapted for use with other adults who care for children with communication difficulties (e.g., in schools and preschools). Palin PCI has been used effectively with children who have additional and/or complex speech and language difficulties (e.g., children with autistic spectrum disorder, children with learning difficulties).
RESEARCH
Future research needs to focus on further developing hypotheses regarding which children are likely to respond to Palin PCI, which children may need additional direct fluency therapy, and which may need only direct fluency therapy. In addition, further research is needed to understand the mechanisms by which Palin PCI significantly reduces stuttering and which components of the program are essential in bringing about this change. It will be important to consider clinical effectiveness of Palin PCI in a wider range of nonspecialist settings, as well as measuring its effects as it is applied to other populations, such as other speech and language disorders or bilingual children.

SUMMARY
We expect that Palin PCI will continue to change and evolve over time. This is as it should be. Reflective practice, user feedback, and advances in research will continue to inform this process, and Palin PCI will develop accordingly.

CHAPTER SUMMARY
• Stuttering is viewed as multifactorial; predisposing physiologic and linguistic factors may be significant in the onset and development of stuttering, and the interaction of these with emotional and environmental aspects may contribute to the severity and persistence of the disorder and the impact it has on a child and the family.
• A detailed multifactorial assessment identifies those factors that may be contributing to the stuttering, as well as the child’s level of vulnerability to persistence, and indicates areas for therapeutic intervention
• The main focus of Palin PCI is the child, his or her profile of skills, and facilitating further development of the naturally occurring fluency within the environment.
• Palin PCI is conducted over six once-weekly treatment sessions with Special Time as home practice, followed by a home-based consolidation period of 6 weeks, and then review and further input as appropriate.

Palin PCI achieves its effects by:
• Building on parents’ or caregivers’ knowledge and confidence in what helps and enhancing existing behaviors that support fluency.
• Developing with parents a shared understanding of the child’s particular profile of speech and language strengths and vulnerabilities.
• Acknowledging that the underlying vulnerabilities that predispose children to stuttering may also make it more difficult for them to be fluent in the context of typical adult-child interactions.
• Using video feedback to help parents discover what they are already doing that supports their child’s fluency, and reinforcing their ability to interact in ways that match the child’s fluency needs.
• Collaborating with parents in setting their own targets and reinforcing themselves and their children as they make progress.
• Facilitating parents rather than telling them what to do; a parent’s instinctive expertise is elicited, developed, and reinforced.
• Providing parents with a better understanding of the problem and confidence in their ability to use a number of strategies to manage the problem successfully.

CHAPTER REVIEW QUESTIONS
1. What factors might indicate that a child is at risk of more persistent stuttering?
2. What are the similarities and differences between this program and a direct therapy program for this age group, such as the Lidcombe Program?
3. When compared with other programs that involve parents, what is different about the way this program engages parents in therapy?
4. What are the key principles of Palin PCI?
5. How might you help parents identify targets to work on?
6. What skills might a therapist need to support parents in the therapy process?
7. What factors might explain variability in the outcome of therapy?
8. What factors would indicate that a child is appropriate for therapy?
9. How could this program be adapted to allow for cultural differences?
10. How might this program be applied to a stuttering child who also has significant delays in speech and language development?

SUGGESTED READINGS