



Working with bilingual children who stutter and their families

Etain Vong, Linda Wilson, and Michelle Lincoln

Clinicians treating children who stutter and who speak more than one language often face unfamiliar challenges. Generally speaking, clinicians do not speak all the languages of a client, yet stuttering often occurs in all of the languages spoken by the child. Using three clinical case examples, this article describes common issues that may arise when working with bilingual children who stutter and their families. Some practical suggestions for overcoming these issues are provided.

Treating stuttering, a speech disorder which disrupts the flow of speech, often presents difficulties for clinicians working with bilingual¹ children who stutter. The main speech issues to consider when treating a bilingual preschool child who stutters are: language/s for assessment and treatment; generalisation of treatment to untreated language/s; collection of speech measurements; and measurement of stuttering in language/s not spoken by the clinician. The purpose of this article is to discuss these issues within the scope of a typical clinical practice. Using three Lidcombe Program case studies of children in Malaysia as examples, this article describes these issues and makes some practical suggestions that can be applied to clinical practice when working with bilingual children who stutter and their families. Because the Lidcombe Program was developed in a western culture and the case studies are of Malaysian children, cultural differences which could influence treatment were considered. However, it is not within the scope of the article to discuss these differences (for details, please see Vong, 2011; Vong, Wilson, & Lincoln, 2011). Below is a description of each of the cases under discussion.

Case 1

Wen Ling² was a girl (aged 3 years 9 months) who had stuttered for more than a year. Wen Ling understood and spoke two languages. Mandarin was her first language, spoken at home with her parents and her elder sibling. Wen Ling started preschool at the age of 3 years 2 months, where she started to learn English. English was the medium of teaching and learning in the preschool.

Speech samples collected beyond the clinic in both Mandarin and English indicated that stuttering was

more frequent in English than Mandarin, although Wen Ling's English vocabulary was limited compared to her Mandarin. Wen Ling's stuttering behaviours were mainly syllable repetitions and blocks in both languages. She also manifested a high frequency of audible inhalations, which were judged by three stuttering specialists to be stuttering behaviours due to the high frequency of occurrence and the disruption they caused to her flow of speech. Overall, the treating clinician³ judged Wen Ling's stuttering as moderate to severe.

Case 2

Rachel was a girl (aged 3 years 11 months) who, according to parent report, had stuttered for at least 5 months. Rachel understood and spoke three languages. Mandarin was her first language, which she used with her parents, siblings, and her aunt, with whom she was very close. English was her second language which she used with her aunt and also at preschool. Malay was her third language which she used with the maid only. According to her aunt, Rachel was most proficient in Mandarin, followed by English and Malay.

The speech samples collected beyond the clinic in all three languages indicated that stuttering was most frequent in English and least in Malay. Rachel's stuttering behaviours were mainly syllable repetitions in all three languages. Overall, the clinician judged Rachel's stuttering as mild to moderate. The aunt and the clinician decided that the aunt would be the agent of therapy because she was able to spend the most time with Rachel at home and bring her for weekly clinical visits.

Case 3

Jun Hock was a boy (aged 4 years 9 months) who had stuttered for almost 2 years. Jun Hock understood and spoke two languages. Mandarin was his first language, spoken at home with his parents and elder sibling. He also started to learn English with his parents before starting preschool at the age of 4 years where English was the medium of teaching and learning. His parents reported that neither language was more frequently used than the other language in the child's everyday speaking situations.

Speech samples collected beyond the clinic in Mandarin and English indicated that stuttering frequency was similar in the two languages. Jun Hock's stuttering behaviours in both languages were mainly syllable repetitions and prolongations. Overall, the clinician judged Jun Hock's stuttering as moderate to severe.

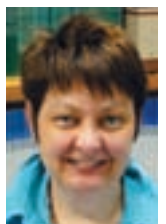
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Issues to consider in clinical practice

Languages for assessment and treatment

When assessing a bilingual child who stutters, speech samples in each language spoken should be obtained. When possible, it might be considered ideal to treat stuttering in both languages in bilingual children. This is assuming that the child stutters in both of the languages s/he speaks. It is rare to find a case where a bilingual person stutters only in one language (see Nwokah, 1988; Van Borsel, Maes, & Foulon, 2001), although severity of stuttering might vary between languages. It could be more efficient to treat one language and monitor the other language/s for generalisation of stuttering reductions, as the little evidence available (Roberts & Shenker, 2007; Shenker, 2004) suggests that generalisation to non-treated languages does occur for some preschoolers. Furthermore, it is often not possible to treat all languages because the relevant languages are not shared by the clinician. This is frequently the case in Australia, where many clinicians are monolingual.

Where more than one language is shared by the child, parent, and clinician, some clinicians and parents will decide to provide treatment in the child's predominant language (i.e., the language that is more frequently and/or commonly used by the child). This is usually but not always the child's first language. Making this choice is common when this is the language most shared by the child and the parent, and the parent is the primary agent of therapy. For example, Shenker, Conte, Gingras, Courcey, and Polomeno (1998) treated first the predominant language of a bilingual preschool child who stutters, before treating the other language. Other clinicians and parents may opt to use the language which has a higher frequency of stuttering because of its greater impact on communication.

In Wen Ling's case, stuttering therapy was carried out in Mandarin because it was the primary language spoken at home between Wen Ling and her parents, and because it was a language also spoken by the clinician. Although the mother and the clinician could also speak English, it was not the chosen language for therapy because it was not the usual language for a conversation between Wen Ling and her mother.

Rachel's case was more complicated. Rachel's aunt was the primary agent of therapy and although Rachel could speak both Mandarin and English with her aunt, her aunt preferred to use English during therapy because it was the language more frequently used in their interactions. However, even though therapy in the clinic was conducted in English, speech samples obtained during home therapy often had a mixture of English and Mandarin. It was rare to obtain a sample purely in one language. Furthermore, Rachel's language choice depended on who she was speaking to. With her parents and siblings, she spoke Mandarin. With her aunt, English was reported to be more frequently used. However from the speech samples obtained, one could say that Rachel was able to communicate with her aunt in both English and Mandarin. Sometimes both languages were used with almost equal frequency to a point that one wasn't sure which was predominant. With her maid, Rachel spoke only Malay. When asked to speak Malay to another person who was able to speak both Malay and English, Rachel refused to reply in Malay. She insisted that Malay was for speaking with the maid only.

In Jun Hock's case, Jun Hock's mother decided that it was better to provide treatment in English because it

was common to home and school, even though Mandarin was Jun Hock's first language. Similarly to Rachel's case, Jun Hock's parents communicated with him in both Mandarin and English. As a result, although therapy was mainly in English, code-switching to Mandarin sometimes occurred during therapy at home and in the clinic. This did not appear to adversely affect his progress. However, unlike Rachel's case, as Jun Hock expanded his English vocabulary, he chose to speak mainly in English and refused to speak in Mandarin. At the end of therapy, his parents reported that he refused to speak in Mandarin even when spoken to in that language. English was more frequently used by Jun Hock's as his English vocabulary continued to expand. In all three cases, the language used for stuttering therapy was the one with which the caregiver and the child were most comfortable and which the clinician was also able to speak.

If a clinician is unable to speak any of the bilingual child's spoken languages, a referral to another clinician who speaks at least one of the child's languages could be made. If this is not possible, an alternative is to obtain the services of an interpreter. However, using the services of an interpreter raises issues of its own. For example, there exists a possibility that unspecialised interpreters may not be able to provide dependable information on stuttered speech (see Finn & Cordes, 1997). In addition, according to Hwa-Froelich and Westby (2003), accuracy of translation is not sufficient and interpreters should be trained to translate and interact in culturally appropriate ways during interpreting interactions. Unfortunately, training programs for interpreters often lack instruction in cultural awareness of multiple cultures (for more details, see Hwa-Froelich & Westby, 2003). A more practical alternative is to train the caregiver, even if the language used during the training is not spoken by the child. Training could be done through demonstrations via video. A trained caregiver could then carry out the treatment in the clinic and also at home in the child's spoken languages. We suggest that if a clinician is unable to speak any of the *parent's* spoken languages, the possible choices for enabling treatment are to a) liaise with the parent to identify another person who shares a language with the clinician and who could become the primary agent of therapy; b) use the services of an interpreter; or c) refer the child and parent to a clinician who speaks at least one of the parent's languages.

Generalisation of treatment to the untreated language(s)

Although it is suggested that it is ideal to treat both languages of a bilingual child who stutters (Roberts & Shenker, 2007), it could be difficult to find a clinician who speaks the same set of languages spoken by the child. This raises the concern about what happens to stuttering in the untreated language/s. A decision to treat in a particular language is not a decision to ignore the other language/s. Instead, in clinical practice, it is practical to treat in one language and monitor the untreated language/s to see if generalisation occurs. The section below on collecting speech measures contains suggestions about monitoring for generalisation. If generalisation to the untreated language is not occurring, then treatment in that language may be warranted. If generalisation is occurring, no additional action would be needed.

In Wen Ling's case, speech samples obtained one-year post therapy in both languages showed that the lower level of stuttering obtained in therapy was maintained, not only in the treated language but also in the untreated language. In Rachel's case, occasional severity ratings

for the other untreated languages (Mandarin and Malay) obtained from the aunt indicated generalisation of treatment effects to the untreated languages. In Jun Hock's case, clinical observation and global severity rating scores by the parents for both languages from time to time indicated that the reductions in stuttering evident in the treated language had generalised to his untreated language (Mandarin). Global ratings were used because the parents reported that Jun Hock spoke more frequently in English compared to Mandarin even when spoken to in Mandarin. Thus, the parents could observe and rate the untreated language only when code-switching occurred from English to Mandarin.

In the event that generalisation to the untreated language does not occur, clinicians need to decide when to start treatment in the untreated language. The absence of research data means that guidelines for timing are not available. One suggestion would be to begin treatment in one language and if the stuttering in the untreated language remains unaltered once the treated language had shown a significant decrease in stuttering, to commence stuttering treatment in the untreated language. But what is a "significant decrease"? We would suggest it is within a few weeks of the parent first beginning to notice and comment on a difference developing between the two languages. If that difference persists or increases over those few weeks, then treatment in the untreated language could be targeted. When required, it is necessary to provide this treatment before the child progresses to stage 2, the maintenance stage. By this point, the child must have achieved near-zero levels of stuttering in both languages or s/he should not progress to stage 2.

If the clinician does not speak the other language/s, another clinician could be consulted for further therapy. A more practical alternative is to guide the caregivers to carry out the treatment in the other language/s, using the observation, measurement and treatment skills they have learned through the common language. Instruction continues in the common language, but the parent conducts the structured and unstructured conversations in the other language/s.

Monitoring untreated languages for generalisation necessitates collection of speech measures for both the treated and untreated languages. It also raises the issue of the reliability of judgments of stuttering in languages not spoken by the clinician. These issues will be addressed in the next sections.

Collecting speech measures

We suggest that clinicians can continuously monitor stuttering in the untreated language/s of bilingual children who stutter using parental ratings of severity from beyond the clinic such as those used in the standard Lidcombe Program practices (Onslow, Packman, & Harrison, 2003) for monolingual treatment. In general, subjective speech measures such as parental severity ratings should reflect a client's daily speech repertoire, and thus speech with people who are familiar and also people who are unfamiliar should be considered. Shenker (2004) recommended that, in cases of treating bilingual children, severity ratings could reflect a global rating of all speech in all languages. This might be particularly useful when severity is similar across languages. Alternatively, a clinician might choose to have the parent collect a daily severity rating in each language, thus enabling accurate monitoring of each. The severity ratings could then be supplemented by occasional recordings of speech, in treated and untreated language/s in order to check for generalisation, reliability of parental severity ratings, and/or objective measures such as percentage of syllables stuttered (%SS).

Wen Ling's mother was able to provide daily severity ratings and occasional recordings in the treated language (Mandarin) and, when requested, also provided speech recordings in the untreated language (English). Because Wen Ling rarely spoke English with her mother, her mother was unable to provide severity ratings in the untreated language. Therefore, the clinician also obtained speech recordings of Wen Ling speaking in English with another conversation partner in order to check for generalisation of stutter-free speech to the untreated language.

Rachel's aunt was also able to provide daily severity ratings beyond the clinic in the treated language (English) and occasional severity ratings for the other untreated languages (Mandarin and Malay) when requested. Obtaining speech recordings was not a straightforward task for her aunt. Rachel refused to speak Malay to unfamiliar people (her maid was a familiar person). Therefore, it was difficult collecting Malay speech recordings with an unfamiliar person. It was also not easy obtaining English and Mandarin speech recordings with unfamiliar people as Rachel was naturally shy and often spoke only in one or two word utterances with unfamiliar people. Therefore, speech with unfamiliar people was often not representative of her true speech. However, some speech samples obtained contained a mixture of English and Mandarin spoken with her aunt, and occasionally, conversations with the maid at the same time. Using these samples, the clinician was able to monitor the progress Rachel made in the untreated languages.

In Jun Hock's case, Jun Hock's mother also provided daily severity ratings for the treated language (English) and occasional severity ratings for the untreated language (Mandarin). Speech recordings were also collected in both languages at the start of the therapy. However, as therapy progressed, obtaining severity ratings and recordings in Mandarin was difficult as Mandarin was not spoken as frequently as before, except during occasional code-switching situations. Whenever spoken to in Mandarin, Jun Hock would reply in English.

These cases demonstrate that collecting separate severity ratings for the treated and untreated languages is often a viable clinical method. In two of the case examples, severity ratings of the untreated language were only occasionally requested, as the children were research participants who were being closely monitored via recordings of speech in the untreated language/s. However, in standard clinical practice, global severity ratings reflecting speech in all languages or separate severity ratings of speech in each language would be clinically viable.

Measuring stuttering in languages not spoken by a clinician

In typical clinical practice, the clinician who carries out the therapy is usually the one who determines stuttering frequency in %SS. Often stuttering frequency is determined in the treated language only. However, the clinician from time to time might need to measure %SS in the untreated language/s to supplement severity ratings and to gauge degree of generalisation, particularly if the parent is unable to do so. If that clinician does not speak all of the relevant languages, then there could be difficulties with obtaining the measures needed. Sometimes, if another clinician is available and able to measure stuttering in the unshared language, s/he may be requested to measure the child's stuttering to enable a more reliable and accurate measurement. This would be particularly important if the child manifests stuttering behaviours which are atypical, such as in Wen Ling's case, who presented with atypical

audible inhalations as part of her stuttering. However, it might not always be possible to find another speech pathologist who speaks the unshared language to make the required measures of %SS. In this case, there are two choices: a) rely purely on the parent's measures of severity of stuttering in the unshared language, or b) make measures of %SS, despite not speaking the language, to supplement the parent's severity rating measures. The latter option raises the issue of reliability of measuring stuttering in a language not understood by the observer.

Studies of monolinguals have indicated poor reliability judgments even among clinicians who are trained and experienced in stuttering (e.g., Cordes & Ingham, 1995; Cordes, Ingham, Frank, & Ingham, 1992; Ingham & Cordes, 1992). Studies of bilinguals are more limited. Available studies using adult samples (see Van Borsel & Britto Pereira, 2005; Van Borsel, Leahy, & Britto Pereira, 2008) indicate that acceptable levels of reliability can be achieved in identifying whether a person stutters or not, regardless of language, although it was a more difficult task in an unfamiliar language. However, factors such as similarity or closeness of an unfamiliar language to a familiar language could to some extent influence judgment (Van Borsel et al., 2008). In a recent study, findings from Einarsdóttir and Ingham (2009) suggest that experienced speech pathologists were shown to be highly accurate in identifying the presence or absence of stuttering in 5-second exemplars from young children who stutter in an unfamiliar language. However, identifying the presence or absence of stuttering in short 5-second exemplars is a different task from diagnosing stuttering, or measuring the frequency of stuttering from conversational speech samples. No research has been conducted to determine reliability of measurement or measurement accuracy of %SS or severity rating scores in unfamiliar languages. Nevertheless, the research cited suggests that clinicians may be able to make reliable judgments of the presence and absence of stuttering in unfamiliar languages. Clinicians could also check with the caregivers regarding each stuttering behaviour observed in the unfamiliar languages or any other questionable behaviours to clarify or verify their judgments. Therefore, clinicians are equipped to make judgments in unfamiliar languages to decide whether a child is ready to enter stage 2 of the Lidcombe Program.

Conclusion

Working with bilingual children who stutter and their families will continue to be a challenge for clinicians. However, through sharing experience and knowledge between clinicians, caregivers, and their children, treatment need not be an effortful task but one that all will learn to enjoy and benefit from. Although this article was written using examples of Malaysian bilingual children, the suggestions provided throughout could also be useful to clinicians working with other bilingual children and their families.

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- 1 In this article, "bilingual" is used to also refer to "multilingual".
- 2 Names of all the children have been changed for the purposes of confidentiality.
- 3 The treating clinician for all the cases presented is able to speak English, Mandarin, Malay, and a few Chinese dialects.

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