Lidcombe Program Treatment Time
Applying benchmarks
to linguistically diverse children

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Goals of Study

➢ Replicate file audits, Jones et al,(2000) Kingston et al,(2004) Koushik et al., (2011)

➢ Establish benchmarks in treatment time for a clinic sample of children from linguistically diverse environments

➢ Discuss implications for service delivery and parent education

Background

- Onset of stuttering typically in preschool
- Incidence 5-8.5%
- Efficacious early intervention is essential to assist clinical decision making, avoid long term consequences
- Can lead to negative consequences if untreated
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Lidcombe Program

➢ Behavioral treatment

➢ Parents provide feedback

➢ Structured/unstructured conversations

➢ Measurement of stuttering

➢ Stage 1- no stuttering

➢ Stage 2- no stuttering for a long time

Lidcombe Program

➢ Early studies supported development of LP

➢ Further studies using larger sample sizes suggested it was effective

➢ RCT results more efficacious than natural recovery

➢ Studies from outside Australia show similar results

➢ Long term benefits

Koushik et al 2011

➢ Published in the International Journal of Speech Language Pathology

➢ North American replication

➢ File audit of 134 children

➢ 5 clinical sites

➢ 15 clinicians with varying degrees of experience

Koushik et al 2011

- Median number clinic visits in Stage 1 = 11

- High pre-treatment severity predicted more clinic visits

- Infrequent attendance of mean 11 days + resulted in shorter treatment times

The Question

Could Koushik et al be replicated on a linguistically diverse population and achieve the same outcomes?

Findlay & Shenker 2011

- ➢ Retrospective file audit

- ➢ Replication of Koushik et al 2011

- ➢ 52 Children

- ➢ Age: 33 to 71 months (Median: 50 months)

Findlay & Shenker 2011

- ➤ 43 Males/ 9 Females

- ➤ Assessed between: August 1998 - March 2010

- ➤ Treated at the Montreal Fluency Centre

Subjects

➢ Stuttering diagnosed by an experienced SLP trained in Lidcombe Program

➢ No concomitant communication disorders

➢ Linguistically Diverse Environment

Study Specific Definition

A Linguistically Diverse Environment refers to an environment in which the child is exposed to two of more languages in home and or school/daycare setting, as reported by the parent during the initial assessment of the child.

Methodology

➢Files selected based on outlined inclusion criteria

➢Files reviewed by first author

➢Data collected using a standard form and pre-determined evaluation technique

➢40 files were re-evaluated by two research assistants trained independently

➢Data analysed using descriptive statistical techniques only

Methodology

Dependent Variable: Time to Stage 2

Predictor Variables: Gender
Age at first treatment visit
Onset to treatment interval
Stuttering severity *(%SS at the first treatment visit)*
Linguistic diversity (*2+ languages*)

Results

	Onset to treatment (months)	Clinic Visits to Stage II	Stuttering Severity at first treatment (%SS)
Median	15.0	12	5.0
Standard Deviation	9.9	9.2	4.5
Range	4 - 43	6 - 44	0.5 - 19.6

Results

Clinic Visits to Stage II
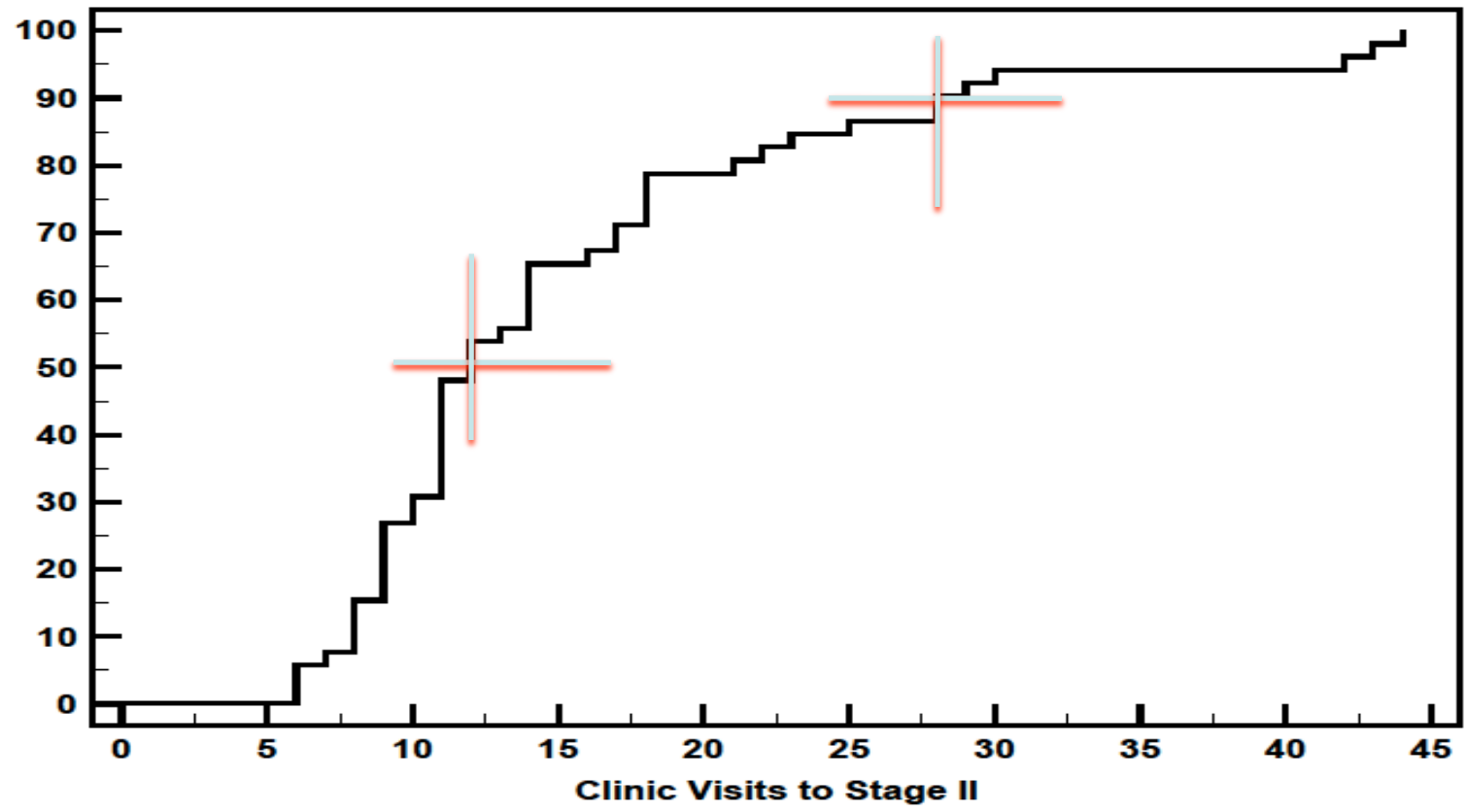
Results

Predictor variables: Age at first treatment		
	Less than 4 years	**4 years and older**
Sample Size	23	29
Median Clinic Visits	13	12

Results

Predictor variables: Gender		
	Male	**Female**
Sample Size	43	9
Median Clinic Visits	13	9

Results

Predictor variables: Onset to Treatment Interval		
	Less than 12 mths	**12 mths or more**
Sample Size	19	31
Median Clinic Visits	14	11

Comparison to Koushik et al

Age at first treatment visit (months)		
	MFC	**NA**
Sample	52	124
Median	50	49.5
Standard Deviation	11.2	9.5
Range	33 – 71	31 – 71

Comparison to Koushik et al

Onset to treatment interval (months)		
	MFC	**NA**
Sample	51	122
Median	15	13.0
Standard Deviation	9.9	10.2
Range	4 – 43	1 - 53

Comparison to Koushik et al

%SS at first treatment visit		
	MFC	**NA**
Sample	51	131
Median	5.0	5.0
Standard Deviation	4.5	5.1
Range	0.5 – 19.6	0.3 - 32

Comparison to Koushik et al

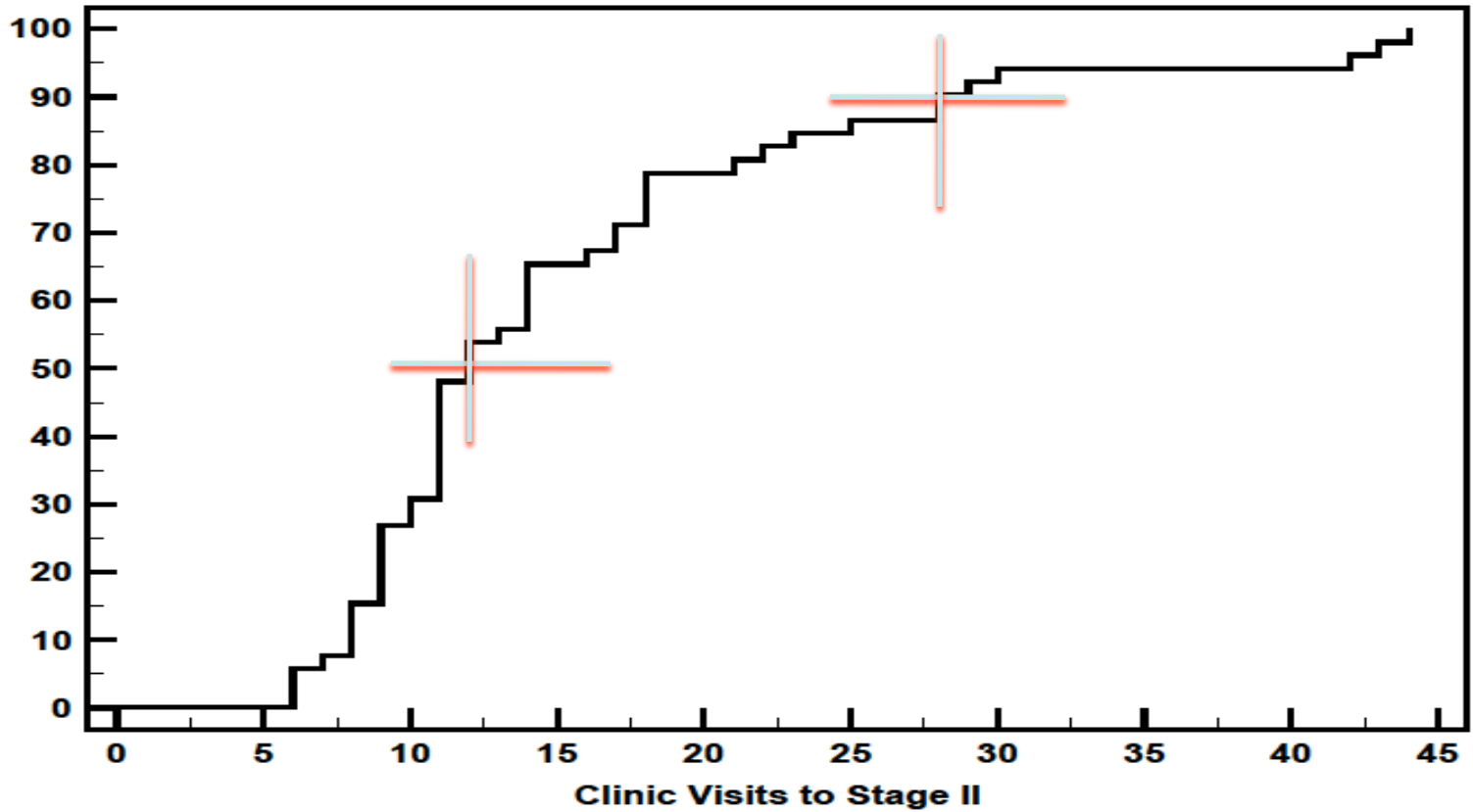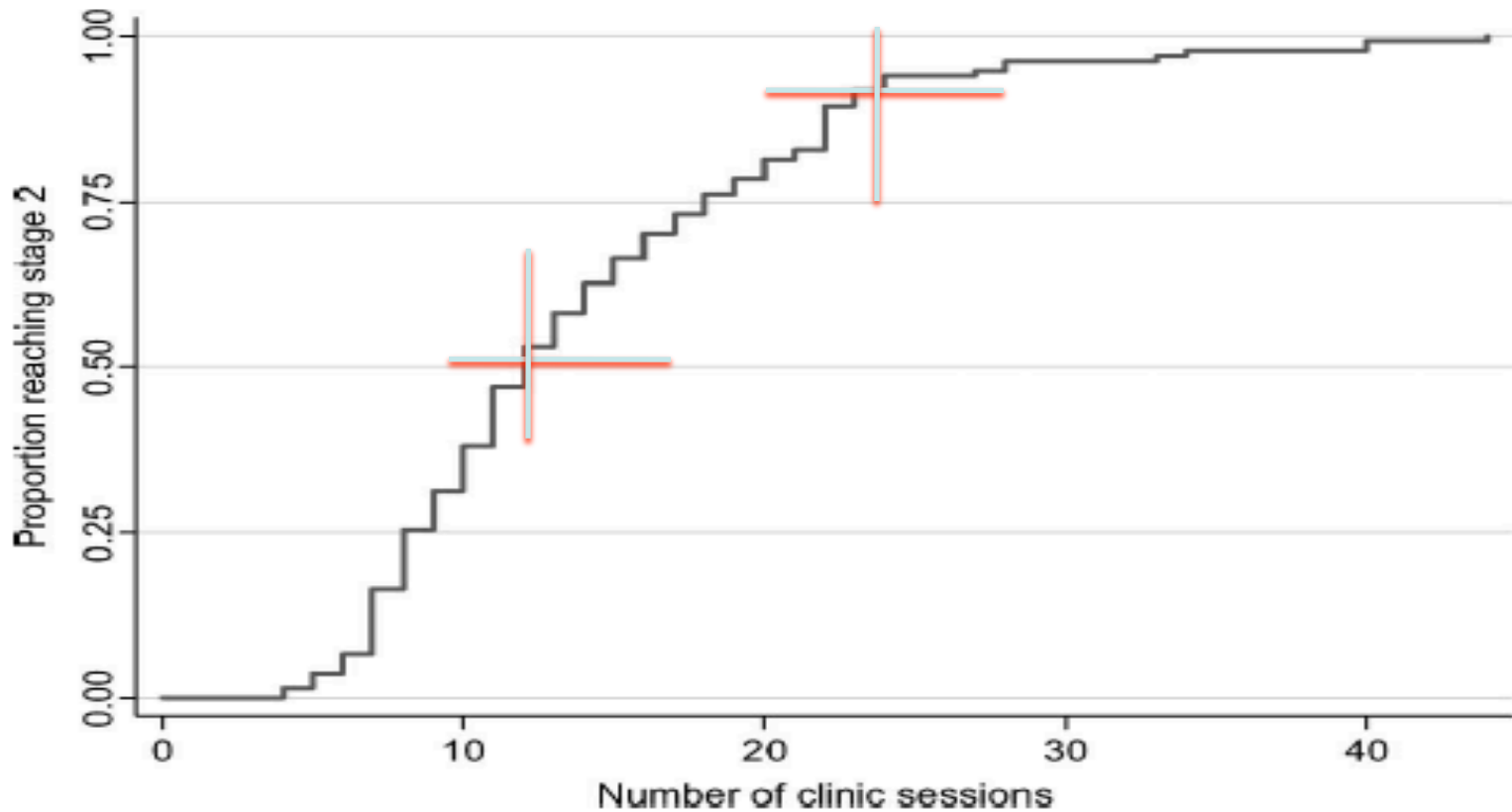| Number of visits to stage 2		
	MFC	**NA**
Sample	52	124
Median	12	11
Standard Deviation	9.2	5.8
Range	6 – 44	4 - 44

Comparison to Koushik et al

MFC File Audit

Comparison to Koushik et al

NA File Audit

Results

➤ Clinical sample shows similar benchmarks as NA, British and Australian study

➤ Linguistic diversity does not negatively impact treatment outcomes

Results

Predictor Variables

➢ Of the four predictor variables identified, only one was significant in the NA file audit

➢ NA file audit showed an association between stuttering severity and clinic visits

➢ Children with %SS greater than 5% at first treatment visit were 4 times more likely that the milder to require more than 12 visits

Results

Predictor Variables

➢ MFC file audit shows a similar association between stuttering severity and number of clinic visits as the NA file audit

➢ Children in the more severe category took an average 14 visits to complete Stage 1, and those in the less severe category took an average of 11 visits

Conclusion

➢Outcomes similar to other retrospective file audits

➢Linguistic diversity did not impact treatment time

➢Results lend support to the argument that bilingualism is not a risk factor in treatment of early stuttering