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Listen Up: Reflections on the CDI and HSE Speech and Language Services in Tallaght West: Chit Chat

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Responding To Needs, Driving Change

Listen up: Reflections on the CDI and HSE Speech and Language Services in Tallaght West



Chit Chat



2016

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Glossary:

CDI Early Years Programme	An initiative which provided a specialised, two-year pre-school programme to children aged from two and a half years in nine early years services in Tallaght West.
Healthy Schools Programme	Programme delivered in designated primary schools in Tallaght West by the Childhood Development Initiative, which aimed to improve children's health outcomes and access to services through a holistic whole-school approach to health promotion.
Early Years Practitioners	Staff trained to work with children of pre- school age.
CDI Speech and Language Therapy Service	An initiative which provided on-site, intensive speech and language intervention for children attending either the Healthy Schools Programme or the Early Years Programme and which trained their parents and educators to support speech and language development.
Doodle Den	Doodle Den is an after-school programme which uses an evidence-based curriculum featuring a balanced literacy framework. The programme is distinctive in that it focuses on improving children's literacy and it is targeted at senior infants level children (aged 5 to 7 years).
Mate-Tricks	Mate-Tricks was an after-school programme designed to promote pro-social behaviour in 4th class children (aged nine to ten years) in Tallaght West.

Acronyms

ABC	Area Based Childhood Programme
ACE	Adverse Childhood Experience
AON	Assessment of Need
ASD	Autism Spectrum Disorder
CDI	Childhood Development Initiative
CELF	Clinical Evaluation of Language Fundamentals
DCYA	Department of Children and Youth Affairs
DEAP	Diagnostic Evaluation of Articulation and Phonology
DSW	Dublin South West
EAL	English as Additional Language
ECCE	Early Childhood Care and Education
EIT	Early Intervention Team
EY	Early Years
FPSY	Free Pre-School Year
HSE	Health Services Executive
NCS	National Children's Strategy
PCF	Parent Carer Facilitator
PCP	Primary Care Paediatric
PEIP	Prevention and Early Intervention Programme
PHN	Public Health Nurse
PLS-4	Preschool Language Scale, Fourth Edition
RAPT	Renfrew Action Picture Test
RCT	Randomised Controlled Trial
REEL-3	Receptive Expressive Emergent Language Test
SAT	School Age Children Team
SES	Socio Economic Status
SLT	Speech and Language Therapy
SPSS	Statistical Package for the Social Sciences
STAP	Non Standardised Speech Assessment Tool
T1	Time One, i.e. baseline assessment
T2	Time Two, i.e. subsequent assessment
UNCRC	United Nations Convention on the Rights of the Child
WNF	Within Normal Functioning
WNL	Within Normal Limits

Minister's foreword

Speech and language development is central to children's potential to enjoy and benefit from their educational opportunities, their engagement in peer relationships and the development of individual self-confidence. We know that in disadvantaged communities, up to half of all children will require a speech and language assessment, and also that this is an area which causes great concern for parents and teachers alike. Therefore I am delighted that our Programme for a Partnership Government commits to the establishment of a new model of In-School Speech and Language Therapy.

The early intervention approach described in this report, which was developed by CDI and evaluated by Dr. Noirin Hayes and Judy Irwin, engages both parents and teachers in a meaningful partnership via a three-pronged approach, whereby the therapist works with the child and the parent/carer and the Early Years practitioner or teacher. We have long recognised in other domains, such as health promotion and youth crime prevention, that no single agency or discipline can fully resolve difficulties and this learning has been integrated here to inform an innovative and effective model that brings added value, minimises stigma and employs an early identification and engagement approach to ensure that children receive a service when they first need it and therefore require less intervention.

This 'Chit Chat' model of speech and language therapy epitomises this approach, in that it works to develop capacity amongst parents and practitioners; it identifies need at an early stage in a child's development and ensures that interventions are accessible and responsive.

We know that early intervention works best for children and families and that is why the Programme for a Partnership Government commits to the development of a new Prevention and Early Intervention Unit in the Department of Public Expenditure & Reform.

This report offers important learning and insights not only on speech and language interventions, but more widely in terms of the central role of parents, the importance of service design, the value in having services delivered through mechanisms and structures which maximise participation and the immense value of collaboration, connections and comprehensive responses.

I very much welcome this evaluation report and the knowledge it offers us about making positive change in the lives of children and families.

Mr Simon Harris, TD

Minister for Health

CDI Response

Oral language development is a key indicator of children's outcomes, and there is an increasing awareness of the need for focused strategies to maximise these developments in young children, particularly those from disadvantaged backgrounds. The evidence regarding the greater risk of difficulty amongst these populations is indisputable, yet Irish research identifying effective approaches and models, remains limited. This evaluation, and indeed the one which preceded it, was undertaken in part to address this dearth of information, and to maximise the learning from the experience of an early intervention model which utilised many innovative techniques.

Fundamental difficulties with the proposed research methodology were met early on in this research, the key being the complexity of factors impacting on children's development, and the accompanying challenges of using standardised assessment tools, both of which significantly impact on the opportunity for comparative analysis. In the absence of such data, it is not possible to draw conclusions regarding the potential cause and effect of any given model and so the findings from this study are inconclusive in that regard. The intention to build on this evaluation and undertake a cost benefit analysis, which would use proven models to calculate the savings which result from early intervention, was not possible in this context.

Despite these limitations, the report offers important insights in terms of the multiple needs of many children requiring speech and language supports; the central role parents can play in achieving these milestones; the importance of service design taking into account their needs; and the value in having services delivered through different mechanisms and structures to maximise participation.

In the context of a National Primary Care Strategy, and the increasing recognition that parents and front line practitioners can, with support, provide children with the engagement and experiences required to improve outcomes, this report offers important lessons regarding approaches and mechanisms to ensure that specialist expertise focuses on those most needing it. We very much hope that these insights inform the development and delivery, not only of speech and language services, but all primary care.

Dr. Suzanne Guerin
Chair
CDI Board

Acknowledgements

This evaluation has been a complex undertaking, and challenged all stakeholders to a far greater degree than anticipated. We are grateful to our researchers Professor Noirin Hayes and Judy Irwin (B.A.,M.Sc.,L.LM), for their tenacity and problem solving approach; to our colleagues in the HSE for sticking with their commitment to the research, and being open to new ways of addressing the methodological difficulties encountered; to the CDI staff and particularly our SLT's, Michelle Quinn and Caitriona Mulhall, whose expertise and understanding of the various perspectives were so important in shaping the ultimate research approach. We would also like to thank Dean McDonnell and Geraldine Rooney for their contributions to the evaluation.

Many children and their families participated in this evaluation, and without their engagement and contributions, the report would lack substance and significance. We are so grateful to them for their time and capacity to see beyond their particular needs, and their enthusiasm to inform future developments. The many schools and early year's services are also hugely important in this regard, supporting the researchers, and families to maximise the value of this study.

And finally, as always, CDI is grateful to our funders for their vision and commitment, and for their integrity in continuing to value evidence and rigor, even through particularly challenging years.

Executive Summary

Research Questions

The primary aim of this study was to build on the previous evaluation of the Childhood Development's Initiatives (CDI) speech and language approach and carry out a comparative evaluation of speech and language therapy services for young children across the CDI and Health Services Executive (HSE) programmes. The main research questions are organised according to (i) implementation of the programme; (ii) uptake and accessibility; (iii) and outcomes.

Key Findings

- Significantly more boys (n=26, 72.2%) were referred to the CDI Speech and Language Therapy Service than girls (n=10, 27.8%), with all children aged between three and six years of age. Similarly with the HSE group, 57.1% (n=16) were boys with fewer girls being referred at 42.9% (n=12).
- The majority of children in the study were attending preschool, with 86.12% of CDI children in pre-school and 71.4% in the HSE group.
- Children were most commonly referred to CDI by their parents with 'mother' being the main referral source. Support was provided by the CDI parent support staff in making referrals.
- HSE figures show that the Public Health Nurse (PHN) was the main source of referral (n=28) with only one instance where a parent made the referral. The remaining referral came from a category entitled 'other'.
- Speech and language outcomes for CDI children indicated an overall decrease in the severe category into the moderate and mild categories. Children moving into the within normal functioning (WNF) category also increased slightly showing a positive trend in scores and subsequent diagnosis across time for the CDI sample.
- CDI statistics from 2014/2015 show that 72% of the children referred to the CDI SLT service had not been identified to the HSE Speech and Language Therapy Service. In this study, it was found that the majority of children in the CDI sample 86.1% (n=27) did not have a previous referral.
- Families were assisted in making referrals for their children by the CDI Parent Carer facilitators on site in the pre-schools and schools. The Public Health Nurse (PHN) acted as a link person in facilitating referrals in the HSE community clinics. However, the PHN system primarily engages with families of children from birth to three years and does not, generally speaking, work with families where children are over three years of age. This may be a gap in referral opportunity, which early years services, particularly with the proposed extension of the Free Pre School Year [FPSY], could fill. The HSE also provide a monthly advisory drop-in clinic for parents who may have concerns for their child's language development.
- Parental involvement in the HSE sample differed slightly from that of CDI as participation at both assessment and intervention services are required. In the CDI model, parents are also always asked to attend, and generally they do, but children will be seen if the parents are unable to attend where children attend appointments with a therapist on their own during pre-school or school hours.
- Of the six HSE cases studied, four showed a positive and active level of parental involvement. [Given the importance of parental involvement in the process, it is important that any speech, language and communication programme is designed with them in mind. Parents play a key role in the outcomes for their children.]
- This study indicates that the HSE Speech and Language Service may be the first port of call for local PHN's who are made aware of, or observe that a child is presenting with a developmental difficulty. It was also apparent that therapists are effective in identifying indicators of other difficulties and referring on to the appropriate service.
- In two of the six HSE cases, children presented with comorbid conditions of Autism Spectrum Disorder (ASD) and intellectual disability. Therapists described how children would not co-operate with the standardised test. As a result it was deemed inappropriate to continue and individual therapists administered qualitative methods

as a way of providing an informal diagnosis/indicator of needs.

- HSE SLTs found that some of the families they work with need to attend a number of different appointments in any one week. Children with more complex needs may start education later and may not attend early years services due to difficulties they may have with toilet training and so forth.

Implications of Evidence:

- The CDI Speech and Language Therapy programme follows a social care model where the Speech and Language Therapist is embedded in local community early years settings.
- The CDI Speech and Language Therapy model provided early intervention and therapy to children, creating a greater likelihood that the CDI children, having been identified at an earlier stage in their communication difficulties, could recover. In addition CDI children receive interventions starting less than one month after assessment. Children's early language environments are critical for their cognitive development, school readiness and ultimate educational attainment.
- Research confirms that school supports are also important for both child and family. There is a need for services to be co-ordinated around a child and his or her family. In some instances parents need help in co-ordinating the family's relationship with numerous professionals.
- International research evidence indicates that supports for language learning are best undertaken in naturally occurring environments and through activities in the child's life. [Continued strengthening of the capacities of parents and staff who are in the young child's environment through information and guided support is recommended.]
- The fact that CDI children and their families did not need an external referral source removes a significant barrier to receipt of assessment and therapy. This is especially the case given the significant and complex difficulties that can exist for families in disadvantaged areas.
- For the majority of children the waiting time from the date of referral to the initial assessment in CDI was three weeks. In comparison it could take up to 17 months for the HSE children to receive assessment following referral. A delay of this kind can further impact on the child's progress. However it is important to note that, since this data was collected, waiting times for an HSE assessment have decreased to 10 months in recent months. In addition there is a 'fast-track' facility for children identified with particularly complex needs¹.
- The waiting time for the HSE speech and language service could be significantly reduced if local community early years services had access to nominated SLT services.

Key Recommendations:

- Chit Chat has been shown to provide a vital service as evidenced by its effectiveness as an early intervention and represents an effective early years, primary schools and community based model of intervention. We welcome the Programme for a Partnership Government which sets out plans to establish a new model of In-School Speech and Language Therapy to support young children, and **recommend that the CDI SLT model of early intervention is maintained and replicated.**
- Community based SLT services complement and support the more traditional clinic based medical model. In addition they benefit those children with less complex speech and language needs and their families. **We recommend the development of more outreach SLT services linked into existing quality community based provisions.**
- This study demonstrates the value of the CDI SLT model and illustrates how early years services and primary schools, with embedded SLT support, can provide a central family support, guiding parents and creating links, where necessary, between parents and other services. Such a model is particularly valuable in cases where children attending from areas of social disadvantage, where English is a second language or where children have additional needs. **We recommend that this model be integrated within services providing the Universal Free Pre-School Year.**

¹ Source: HSE Speech and Language Manager

- Given the complex nature of speech and language development in the early years and the increasing population diversity, **we recommend that assessment of speech and language is given careful consideration by appropriate professionals, with the accompanying training and supports to maximise a consistent, but child centred approach.**
- The findings from this report illustrate the important contribution that the early year's practitioner can make to the speech and language development of young children, and support of their parents. **We recommend that early year's practitioners be recognised as professionals and that due consideration be given to their contribution and expertise as a source of referral to mainstream SLT services.**
- Given the importance of parental involvement in the process, it is important that any speech, language and communication programme is designed with them in mind. Parents play a key role in determining the outcomes for their children. **We recommend that service design for SLT and other primary care services reflects the evidence regarding effective mechanisms to promote parental engagement, particularly in disadvantaged communities'.**
- This study highlights the potential of the early years setting as a family support service, particularly in relation to working with parents and their children to enhance and support early speech and language development. **We recommend that early years services be recognised and supported as family support services.**
- Early years settings are ideal points of access for parents where they can learn more about language and communication with their children. With training and support, early years settings could become a central component of intervention approaches for young children. **We recommend that early year's organisations and City/County Childcare Committees work with the HSE and TUSLA to develop and strengthen the position of early year's services as sites of parental support, prevention and early identification and referral using the CDI SLT model as a guide.**
- **We recommend the continued strengthening of parent and staff capacities for those who are in the young child's environment, through information, training and support.**

Introduction



Chit Chat



1.1 Background to the CDI Speech and Language Therapy Service

This past decade has seen significant changes in the provision and integration of children's services and programmes following a revision of government policy in the area of health and wellbeing, particularly for children living in low socio-economic areas. The *National Children's Strategy: Our Children – Their Lives* (2000) was the first to identify children as a specific group for policy attention and its publication placed children firmly on the national political agenda. It identified prevention and early identification as a key objective, with particular reference to family support systems. This later became a focus on prevention and early intervention, under the then Office of the Minister for Children, with funding from the Atlantic Philanthropies. Carried on into the *National Policy Framework for Children and Young People: Better Outcomes: Brighter Futures* (2014) the focus became much stronger and shifted to Early Identification and Prevention as one of five Transformational Goals (2014:vi). One response to the *National Children's Strategy* (2000) [NCS] was the introduction of the Prevention and Early Intervention Programme (PEIP) under Goal 3, Objective I, Action 80 which commits to '[E]xpand family support and other community-based, early intervention services under a new programme of investment' (2000:66). Evaluations of various initiatives under this programme in the last number of years have highlighted the need not only for structural change but also social regeneration in low socioeconomic areas. The main aim of the PEIP has been to integrate services already present in the targeted areas, thus providing greater support for health and educational outcomes.

The Childhood Development Initiative (CDI) in Tallaght West is one such programme. Funded by The Atlantic Philanthropies and Department of Children and Youth Affairs (DCYA), the Initiative set out to deliver services and early interventions for children and families in a community setting. The central focus of CDI's 10-year strategy was to improve outcomes for disadvantaged children in Tallaght West. The programme focused on the early years through the *Early Years Programme* and on primary education through the *Healthy Schools Programme*, *Doodle Den* and *Mate-Tricks*. It was designed based on research and needs identified in the area (CDI, 2004). Whilst initially only part of the Early Years programme, the speech and language element of the overall initiative was later added to the Healthy Schools Programme in 2009 (Smith and McNally, 2013).

The headline aims of the CDI initiative were:

- to develop new services to support children and families;
- to encourage better integration of education, social care and health provision;
- to promote community change initiatives to improve the physical and social fabric of the neighbourhoods in which children live, play and learn.

Research has shown that all children benefit from attending quality early childhood services but for children living in areas of disadvantage, the experience can be particularly beneficial (Siraj-Blatchford and Sylva, 2004). Recognising the importance of quality early years experiences for children's development, particularly their language and communication development, the Early Years element of the intervention included the provision of SLT support. Research indicates that early speech and language difficulties have a long-term negative impact on children's literacy and learning (Conti-Ramsden et al, 2001; Leitao and Fletcher, 2004) and can have negative social ramifications in the short and long term (Gallagher et al, 2000; Knox, 2002; Snowling et al, 2001). Moreover, the long-term effects of speech and language difficulties are much greater when difficulties are not resolved by the time a child attends primary school (Bishop and Adams, 1990).

Nationally, the Health Services Executive [HSE] supports Speech and Language Therapists [SLTs] to provide speech and language assessments, diagnoses and interventions for children with a variety of different needs. Speech and language services are provided by the HSE in the Tallaght West area but the demand exceeds supply with waiting times for therapy reaching 12 months (Conroy, 2014). In recognition of this need a speech and language support intervention became a core component of the CDI Early Years Programme. The CDI SLT Service currently has two full-time speech and language therapists. Both SLTs are funded by CDI and were initially employed by An Cosan, a local community-based organisation,

and subsequently by the South Dublin County Childcare Committee, but are currently employed directly by CDI. They receive role support from the HSE community SLT Service, as well as reporting to CDI's Quality Specialist. This interagency approach was borne out of evidence-based research in an attempt to further meet the needs of an ever-changing population. The delivery of the CDI Speech and Language Therapy service differs from that of the HSE model, which is 55% clinic based. By contrast CDI targets children in need of assessment and intervention from within their early years service or school and develops programmes according to need. Parents are not required to attend appointments although they are encouraged and supported to do so, and nor does the service disrupt children during pre-school or school hours to attend a clinic. The role of SLTs is to assess children and, where necessary, to provide intervention. Intervention takes one of two forms: direct therapy (provided by SLTs to individuals or groups of children within the school and early years settings) and indirect therapy (where SLTs provide parents and staff with activities to do with children in the form of home and early years programmes).

The interagency organisational structure allows for inter-professional collaboration between early years practitioners and primary school teachers. The mode of delivery allows for the sharing of information on children's needs, progress and outcomes through a feedback loop facilitated by the regular presence of SLTs in the early years services and schools. Overall the CDI speech and language service operates in 12 settings across Tallaght West with three primary schools and nine Early Years services involved in service delivery.

Introduction to project

The field of speech and language therapy is both under-resourced and under-researched in Ireland. This report follows on from the previous report on CDI's early intervention SLT model (Hayes et al, 2012,) and supports previous findings that the Service benefited the children who required intervention and had more general benefits for all of the children in the service. This was due to the increased ability to promote speech and language and the greater potential for early identification of needs.

The Speech and Language Therapy [SLT] model used within the CDI settings was designed taking account of the second headline aim of the CDI initiative: 'to encourage better integration of education, social care and health provision'. Described as a three-pronged approach by Smith and McNally (2013) the model offered an integrated and comprehensive SLT service which included three elements:

- Assessment and therapy (where necessary) to the children referred to CDI services
- Training and support to parents of children receiving therapy
- Training and support to staff of the early years settings and the primary school classes.

From the beginning parents were a central element of the CDI initiative. Parents whose children were assessed as in need of SLT received one to one support from the therapist in relation to their child's particular needs. All parents were invited to attend information sessions held throughout the lifetime of the project in order to improve their sensitivity to children's communication skills and needs, to improve the referral rate to services and support children in speech and language in general.

In addition to providing assessment and therapy to children and supporting parents, the SLTs also provided training and support to staff in the early years settings and primary school classes. This was augmented by the offer of therapist led training, taken up by the staff of the early years settings, to identify key strategies they could use to provide language rich environments, which would build children's literacy skills in a learning environment that encourages interactions and communication.

This model was designed to integrate education, health and child care provision which in turn assists in improving overall child outcomes. As well as promoting speech and language development and providing intervention, the programme also aimed to provide training to staff and parents of both the Early Years and Healthy Schools Programmes and to promote speech and language within these programmes.

The main aim of the programme was to promote accessibility of services, increase attendance rates, facilitate collaboration between educational and health staff and achieve more positive outcomes for children and their families. These aims are typical of Prevention and Early Intervention Programmes (PEIPs) (O'Connor, Mahony, Reilly and Duggan, 2012).

1.2 Background to the HSE Speech and Language Therapy Department

Drawing on information from the HSE website and discussions with HSE staff we gathered information and details pertaining to the HSE services. The HSE Community Speech and Language Therapy Service, Dublin South West [DSW] currently serves a population of approximately 152,000 operating primarily across Primary Care and Social Care divisions within the HSE. Service delivery includes the provision of therapeutic assessment and interventions as well as educational and consultation services targeting the needs of both children and adults presenting with a range of communication impairments. These can include difficulties across the domains of receptive and expressive language, speech sound acquisition, social language use, fluency, voice and swallow functioning. The SLT team works with the client, family and carer and also with other professional groups within health and social care services, as well as in some educational settings.

The SLT Primary Care Paediatric (PCP) service, DSW, is located within a variety of settings inclusive of health service clinics, mainstream schools and special schools for children with mild intellectual disabilities, specialised preschools and specialised language classes (See Appendix 6). Within the social care division, team members provide SLT within the HSE early intervention and school age multidisciplinary teams (EIT /SAT) (See Appendix 6) working alongside occupational therapists, psychologists, social workers and physiotherapists.

The service operates with high referral rates indicative of the high child population within the area as well as the high incidence of communication difficulties in young children. Resource allocation has been increased in the past number of years with waiting lists decreasing from 18-24 months in 2011 for initial assessment to the current waiting time of eight months. Waiting lists for intervention have also reduced for both priority and general status.

While there has been an obvious improvement in wait times, staffing rates still do not reach the recommended baseline numbers. The subsequent impact on service delivery to children in the area is detrimental at a stage when prompt and continuous support is needed.

1.3 Objective of the Speech and Language Therapy Evaluation

This evaluation provides a follow-up to a previous retrospective study on the impact of the SLT provision within the CDI *Early Years Programme and Healthy Schools Programme* reported on by Hayes, Keegan and Goulding in 2012. That study found that significantly more boys (n=120, 62.5%) were referred to the CDI SLT Service than girls (n=72, 37.5%). Eighty seven percent of boys (n=104) and 73.6 percent of girls (n=53) were accepted for therapy, giving a total of 157 children in SLT. Thirteen boys (12.5% of boys accepted) and 15 girls (28.3% of girls accepted) were discharged from the CDI SLT Service with their speech and language within normal limits after therapy. Significantly more boys than girls required ongoing therapy after transitioning from the CDI service. Of particular interest was the finding that 18% of children (n=28) were discharged from the CDI SLT Service because their speech and language had reached normal limits after intervention. These children required an average of six weeks speech and language therapy to reach normal limits as seen in the table below.

Table 1 Child outcomes of the CDI SLT Service (Hayes, Keegan and Goulding, 2012)

Outcome	Whole No.	Sample %	Early No.	Years %	Healthy No.	Schools %
Discharged within normal limits	28	17.8	21	17.2	7	20
Ongoing speech and language needs	78	49.7	68	55.7	10	28.6
Still in receipt of service	48	30.6	31	25.4	17	48.6
Missing data	3	1.9	2	1.6	1	2.9
Total	157	100	122	100	35	100

However, the previous evaluation study was limited in that it was retrospective and it was not possible to estimate the impact or implications of the findings or capture the potential long-term benefits of the CDI Speech and Language Therapy Service. Nonetheless, the results from the 2012 evaluation of the CDI SLT Service suggest that integration of services such as SLT within the community and/or educational system meets the needs of the community in a way that traditional clinic-based services cannot. It was found that early intervention coupled with intensive on site therapy provision using a three-pronged approach (child-parent-practitioner) increased collaboration for all concerned. Similar models have supported this approach when working with children who present with speech and language difficulties (Conti-Ramsden et al, 2001; Clegg et al, 1999; Gallagher et al, 2000; Leitao and Fletcher, 2004; Knox, 2002; Snowling et al, 2001).

Specifically informing this current study were the results from the previous evaluation suggesting that the service succeeded in receiving referrals, assessing and intervening for 192 children in the Tallaght West area at an age when they were unlikely to have been seen by any other local service without waiting for a long period of time. Of particular interest was the finding that 18% of these children no longer required speech and language therapy after the intervention, meaning that a smooth transition to school and positive longer life outcomes are likely (Conti-Ramsden et al, 2001; Clegg et al, 1999; Gallagher et al, 2000; Leitao and Fletcher, 2004; Knox, 2002; Snowling et al, 2001). It was also found that those who were referred on to other services (49.7%) were likely to have benefited from the intensive period of initial therapy that they received at an earlier than normal age (Hayes et al, 2012).

Parents echoed these findings by reporting that their children were more ready for school as a result of the intervention. Parents and staff were also in agreement that the model was a positive and welcome alternative to traditional clinic-based therapy delivery, in terms of its on-site location, which meant that the SLTs were more accessible to children, parents, practitioners and teachers. The training and information sessions offered by SLTs also assisted in de-mystifying speech and language development and therapy for all concerned.

Given that the service was located in an area where some children are at risk due to multiple factors, the service can be said to have effectively removed another risk factor from the lives of a proportion of these children. The CDI SLT Service ensured that children's speech and language needs were treated early and intensively.

Based on these results and following an engagement process with the HSE Speech and Language Therapy (SLT) Department in Tallaght, it was agreed that a follow-up evaluation would be undertaken. The objectives of the follow-up evaluation were to examine the following aspects of the SLT Services currently being offered in Tallaght West across the two models in terms of:

- Children's attendance rates
- Assessment outcomes/children's progress
- Benefits/Challenges of both CDI and HSE services
- Recommendations for future service delivery models based on findings

It was also intended that this information would inform a subsequent cost benefit analysis of the CDI service, which was not possible from the previous evaluation.

The original design of the evaluation was modified following consultation with both CDI and the HSE to address a number of issues specific to the HSE. This resulted in a change of design and a change in the focus of the research itself. While CDI data was analysed using statistical analysis to show outcomes for children attending the service, the HSE data set was analysed by means of a case study. This qualitative case study method was selected to maximise the information from the HSE data that was available.

1.4 Outline of the Report

This report provides an overview of the evaluation documenting outcomes achieved in terms of attendance and positive speech and language therapy gains for the children who participated in both models of SLT delivery. This current chapter outlines the context of the SLT evaluation and describes the benefits in attempting to integrate SLT service provision and education. Chapter 2 provides a literature review on the subject area, considering language development milestones and the different models currently being put forward in intervention. Chapter 3 outlines the method, describing the setting, design and procedure while discussing the limitations of the study. Chapter 4 charts the results from both a quantitative and qualitative perspective. Chapter 5 provides a discussion piece around the outcomes for children and identifies key findings and recommendations.

Early Speech and Language Therapy



Chit Chat



Language, without question, is the key to learning. Children who fail to develop adequate speech and language skills in the first years of life are up to six times more likely to experience reading problems in school than those who receive adequate stimulation (Boyer, 1991:12).

The classification of children's language and communication difficulties, their prevalence and the effectiveness of current models of intervention in addressing these difficulties are considered in this chapter. The debate on the influences of heredity and environment on language development has a long history. As noted by Carr (2006), the rapidity of language development suggests that the ability of the individual to apply linguistic rules is sub-served by genetics. However the finding that children who are deprived of contact and stimulation resulting in arrested language development, can in fact acquire normal levels of linguistic development when placed in a more stimulating environment in only a few years points to the importance of the environment in the development of language (Skuse, 1984). Environmentalists have focused much of their attention on the way in which parent-child interactions (particularly that of the mother) facilitate language development (Kaye, 1982).

It is likely that many factors play a role in language development. Different types of speech, language and communication needs were set out by Lindsay et al, 2008 in their report commissioned for the Bercow Report. They identified the following categories:

- A developmental difficulty relatively specific to the speech and/or language systems, a *primary* speech and/or language difficulty.
- Another primary developmental factor, such as a significant hearing impairment which detrimentally affects speech, language and communication development: in this case speech, language and communication difficulties are *secondary* to the primary difficulty (hearing impairment in the example).
- Reduced developmental opportunities limiting the child's learning of language, mainly linked to social disadvantage [2008:16].

Hart and Risley (1995) found that while children from different backgrounds typically develop language skills around the same age, the subsequent rate of vocabulary growth is hugely influenced by the home environment. The differences in the quantity of language that children are exposed to in the first years of life emphasises the fact that early spoken language creates the initial building blocks for subsequent reading and writing in their school life. However the parents of children who develop difficulties with communication often have problems in accessing the support they need for both themselves and their child. Research from Rafferty (2014) has found that while prevalence rates of language delays are high in disadvantaged areas, the rates of identification are low.

In her overall recommendations, Rafferty highlights the need for, and advocates for a multi-disciplinary and multi-departmental approach with the integration of services across health, education, social care and disability. She argues that *"The development of a common language, common practices and shared assessment and interventions across health and education systems are required to maintain a focus on the child,"* (Rafferty, 2014:28).

2.1 Prevalence of and Access to Speech and Language Therapy

Language is one of the many fascinating aspects of human development with communication playing a central role in our development even before we are born. Approximately 5% to 10% of all children will present with some form of speech or language difficulty in childhood. In areas of disadvantage, it is estimated that upwards of 50% of children are entering school with impoverished language skills (O'Connor et al, 2012). They go on to remind us that the development of speech, language and communication skills is pivotal in every child's life. In fact a child's social and emotional development as well as their educational achievement are dependent on it. Research clearly documents the link between early speech and language development and literacy attainment and academic success for the child (Bercow, 2008; Law, Reilly & Snow, 2013). Snowling et al (2011) show that children with poor language development at five years have a risk of low educational achievement by the time they reach seven years of age.

Elsewhere, there is increasing evidence suggesting that there are "critical [or sensitive] periods" for speech and language

development in infants and young children with the first three years of life being the most intensive period. This evidence shows that there is a certain window within which to maximise the impact of brain development in children. In other words stimulation is very important for brain development. The more stimulation a baby and young child receive in terms of being read to or talked to, the greater their capacity for language and literacy.

Correlations between the absence of early intervention and its subsequent impact on the lives of the children in need of therapy and their families is evident. Literature points to the fact that adverse childhood experiences (ACE's) can have negative neurodevelopmental impacts that persist over the life span (Felitti et al 1998). An inability to express needs and ideas can lead to a sense of frustration. This can manifest itself in many ways.

Marston (2013) notes that poverty significantly affects how people live their lives and what resources are available to them for addressing problems. Traditionally, lack of access to appropriate services and supports has been identified as one of the main reasons why people in poverty do not receive services to help address problems. However Porterfield & McBride (2007) show that the problem may be more the lack of recognising a need for health services than lack of access. They concluded that children from poorer families were less likely to have access to specialised health services because their parents did not recognise the need for those services.

According to the Growing Up in Ireland longitudinal study almost a fifth of children in Ireland live in poverty (18.8%). Many children from these disadvantaged families and communities have poor economic, social and educational outcomes. As noted by Carr (2006) in situations where parents are coping with the multiple stresses associated with social disadvantage, understandably they may have fewer resources available for meeting their children's needs for intellectual stimulation. Literature and the evidence base show that early intervention with children is effective and that early assessment should be followed by evidence-based interventions that are developed in partnership with the parents and the child. Early intervention can reduce support required in the long term and be more cost effective in terms of access to other services later on for the child and family concerned.

In sum the research indicates that speech and language difficulties can be of particular concern in disadvantaged areas, where children may be at more risk of suffering multiple disadvantages. Socio-economic status (SES) is a factor which has been long associated with children experiencing difficulties in language development compared with children from higher socioeconomic backgrounds.

The population of Tallaght West has experienced significant economic disadvantage with research indicating that this area has an over-representation of families affected by poverty and disadvantage. Three out of five children in the area live in poverty (CDI, 2004, 2005). Locke et al (2002) found that over half of the disadvantaged pre-school children in their study had a language delay compared with the UK prevalence rates of 5% (Law et al, 2002). Moreover, the long-term effects of speech and language difficulties are much greater when difficulties are not resolved by the time a child attends primary school (Bishop and Adams, 1990). Hayes et al. (2012) remind us of the implications of these findings not only at an individual level but also at a societal level.

Statistics from CDI (2014/2015) show that of the children with apparent speech and language difficulties identified by their services, some 72% had not come to the attention of the HSE Speech and Language Department at any stage. Not only are children living in disadvantage in Ireland at a heightened risk of suffering from speech and language difficulties but, due to the lower rates of identification within this particular population and possibly poor response rates due to under resourcing, they are also placed at a much greater risk of experiencing the long term and wide-ranging effects of such difficulties.

It is important to note that at the time of writing 139 children are waiting to be assessed by speech and language therapy in Tallaght West HSE SLT Service. It is clear that the public system cannot meet the needs of these children and their families under the current staffing constraints. Although prevalence figures across Ireland are difficult to obtain the Census of Ireland (2011) indicates that there are 53,058 children aged 14 years and under with a disability. In 2009, The National Sensory and Physical Disability Database recorded 2,656 people with a primary speech and language difficulty. Even for children who are already receiving a service, parents often note that the level of therapy is insufficient in achieving what they would consider to be the desired outcome with many resorting to private therapy for their children. Given the financial burden of private therapy, there are many families who do not have this option.

However bleak these findings are, they highlight the urgent need for greater resources and research in this area. In her key findings, Rafferty identifies this need for further research and recommends the creation of “a platform for sharing and pooling knowledge, experience, resources and evidence on oral language development” (Rafferty, 2014:31). The development of more outreach programmes as opposed to the traditional clinic-based medical model reflects an attempt to tackle the disadvantage discussed in this evaluation. These programmes endeavour to increase accessibility to services in order to increase early engagements from families and parents of children with communication difficulties in disadvantaged areas. Irish examples of these include the Speech and Language Therapy Service In-School Provision in Limerick City, the Niche Speech and Language Programme in Cork, the CDI Speech and Language Therapy Model in Tallaght and the Barnardos service, St. Agnes’ and St. Joseph’s and Scoil Eoin Service for the HSE.

2.2 Intervention Models and Assessments

Dockrell and colleagues (2012) listed a number of different models of intervention and issues surrounding them as outlined below:

- **Universal, targeted and specialist intervention**

Universal interventions are those aimed at the population as a whole. An example of a universal intervention would be a screening programme.

Targeted interventions generally involve one-to-one or group sessions carried out over a set period. These services are provided by an adequately trained and supported adult who may be an educator or a parent.

Specialist interventions are required for a small number of children for whom practice and exposure do not change or improve the problem.

It is the generally accepted approach to invest most resources to universal measure, fewer to targeted interventions and to retain specialist resources for specific and complex problems.

- **Direct versus indirect interventions**

Direct therapy to individuals or groups is more widely reported on but parent/educator training or intervention is increasingly commented on and promoted.

- **Mainstream versus special school intervention**

Policy and tradition tends to be geared towards a more clinical model of intervention. There is very little evidence of comparison between these two models of intervention. Research indicates that a wide range of speech and language therapy interventions can improve outcomes for children with difficulties. Law et al (2010) conclude that interventions may improve outcomes for children with expressive phonological and language difficulties. Boyle et al, (2009) make the assertion that interventions can be just as effective whether delivered by speech and language therapists, or trained non- therapists. Parents can be taught to implement language support strategies with assistance from therapists. The research evidence indicates that supports for language learning are best undertaken in naturally occurring environments and through activities in the child’s life (Law et al, 2012, Lindsay et al, 2010, J.E. Dockrell & Marshall, 2015).

The figure below outlines graphically a number of interventions with proven impact that are already available and existing in the infrastructure of the UK across age ranges, target groups and types of provision. In the current policy climate in Ireland where there is attention to the integration of services, this model illustrates what an effective intervention process would be like.

Figure 1: Effective Intervention Examples by Age



Findings from the previous evaluation of CDI's SLT model by Hayes et al (2012) have shown that the skills of Speech and Language Therapists are best placed in provision and capacity building (O'Connor et al, 2012). Their specialist skills can have a significant impact when used to build on the skills of others spending time with children such as parents and Early Years practitioners. Roulstone et al (2010) while emphasising the social care model over the clinical model also discuss the importance of parents and educators in creating the best environment for children to learn. Despite these findings the medical model remains the main model for Speech and Language Therapy Service delivery in Ireland (Rafferty, 2014).

The complexity of assessing oral language and the different factors that impact on assessment outcomes has been recognised. Firstly the age of the child has a significant impact and the younger the child, the more difficult to measure him or her given that younger children often do not have the skills to complete a given test. During consultation with practitioners, Rafferty (2014) noted that many SLTs are concerned about the limitations of the assessment tools available as they lack sensitivity in assessing young children. The recommendation was that composite language assessments or measures are a more accurate reflection of language ability than single assessment/measures. Some children also present with additional difficulties making the challenge of assessing greater in some instances. The role of parents in providing assessment information is of particular importance especially given that parents can provide information about a child's use of language outside of the Early Years and school setting. Staff in these services can also provide useful information.

Studies show that supports offered to parents and families before children start to talk are invaluable. Effective communication based on language skills, is a prerequisite for further learning and development in the child's life (Law et al., 2013). Baby talking groups are being offered in areas across Dublin. This is a new programme that is being offered to all parents with babies between 6 and 12 months. As part of the group, parents learn how to promote their baby's early communication skills such as looking, listening, turn taking, imitation and play skills. This approach has been influenced by the Sure Start initiative in the UK which noted that it is not sufficient to tell parents that they need to play, talk and interact with their babies and young children; many parents need to be shown how to do this. This is a key area where universal interventions can be employed to engage, empower and enhance parental involvement in their child's language stimulation and possibly remove the need for more specialist interventions down the line.

2.3 Conclusion

The literature frequently demonstrates that high quality early childhood education and care can have long lasting positive outcomes for children from both disadvantaged and non-disadvantaged backgrounds (Campbell, Ramey, Pungello, Sparling & Miller-Johnson, 2002, Peisner-Feinberg, et al., 2001; Reynolds, Temple, Robertson & Mann, 2001; Schweinhart et al., 2005). Such early intervention may help to off-set problems related to disadvantage (Schweinhart et al, 2005). Children's early communication skills are regarded as the single best predictor of future cognitive skills and throughout their life in their educational and occupational performances (Rosetti, 1996). It must be emphasised that children who display speech, language and communication difficulties do not simply 'grow out' of such difficulties as they get older or as they progress through school. On the contrary, research shows a consistently poor outcome for children who do not receive intervention at an early stage.

Overall the literature highlights the need for integration of services across health, education, social care and disability. Sharing information and creating opportunities for delivering services that are more convenient to families must be considered to ensure long-term sustainable change. The current models of providing therapies to children need to be revisited for a number of reasons including lack of sustainability as seen in the Conroy report (2014) coupled with an increased understanding of the impact of the social gradient (Law et al, 2013). To conclude there is a strong case for the delivery of speech and language therapy services to be reconceptualised and expanded to offer effective prevention and early intervention.

Methodology



Chit Chat



3.1 Design

Due to the nature of working with populations actively involved in therapeutic practice, the reliability of the research design and methodology is of great importance. Reliability can take many forms, but Sattler (2008) mentions how the core components of a reliable methodology lie in the accuracy, consistency, and stability in all facets of a research project. Within the SLT literature, one of the most frequent research methodologies used is the Randomised Controlled Trial (RCT), (Cesaro, Campos, Gurgel, Nunes, & Reppold, 2013). Under this methodology, an individual is randomly placed into an intervention or control group in order to identify factors that influence the effectiveness of an intervention (Casenhiser, Binns, McGill, Morderer, & Shanker, 2015). Often applied to various social experiment settings, the RCT allows a researcher to make causal inferences regarding variables because of its clinical nature. However, RCT methodologies are not always appropriate, for instance where there is too much variability between intervention groups or when it is unfeasible or unsuitable (Clay, 2010). In the case of this study the RCT method was deemed inappropriate and a mixed methods approach was adopted with a longitudinal design. Within this design, the participating children were to be measured at two separate points in the study, [T1 and T2 with a nine month interval] using agreed standardised instruments, for both the CDI and HSE groups at both T1 and T2.

3.2 Participants

The final sample for this study comprised 36 children and two SLTs in CDI and 28 children and six SLTs in the HSE. The participant group was selected in order to focus on a specific age-range and similar background, resulting in a participant group (n=64) with ages ranging between three and six years ($M=3.97$). Of the total initial participant sample, a number of children were removed from the final study sample for reasons outlined below.

The final CDI sample of 36 children emerged from a possible sample of 42. Two children were withdrawn due to ineligible age and four of the children's parents did not give their full consent to the study and were therefore removed. A further four were discharged at initial assessment having been found to be within normal limits. These four participants whose parents had already given consent) remained in the sample for descriptive purposes.

The final HSE sample of 28 children emerged from a possible sample of 31. Two were removed due to ineligible age and one was removed due to only partial consent being received by the parent in question. Of the 28, four were discharged following initial assessment (with three of the four children found to be within normal limits). Similar to the CDI sample, these four children have been included in the overall descriptive analysis.

Combining the two groups (n=64), there were more male (n=42) participants than female participants (n=22), with all participants being recruited from the Tallaght West and immediate surrounding areas. Almost a quarter of the participants lived in households where English was not the native language (n=15). A further group breakdown is as follows;

- Within the CDI group (n=36), 72.2% (n=26) were male and 27.8% (n=10) were female. All children were aged between three and six years of age. At the time of this study 86.12% (n=31) of children were attending Early Years Services and 13.88% (n=5) were attending School. Out of the 36 children within this sample 25% (n=9) came from homes where languages other than English were spoken.
- Within the HSE group (n=28), 57.1% (n=16) were male and 42.9% (n=12) were female. Identical to the CDI sample above, all children were aged between three and six years of age. At the time of this study 71.4% (n=20) of children were attending Early Years services, 14.3% (n=4) were attending School, and 14.3% (n=4) were not in formal education. Out of the 28 children within this sample 21.4% (n=6) came from homes where languages other than English were spoken.

3.3 Phase 1: Quantitative Data

Participants within the CDI (n=36) and HSE (n=28) groups were tested at two separate intervals, nine months apart. After parental consent, standardised assessment tools (described in 3.6) were completed by each child prior to the intervention at Time 1 and again nine months later at Time 2. In addition to the collection of outcome data, two additional strands of research were carried out. The first strand examined the referral process, uptake and outcomes of the service provided and observed the following:

- Age at time of referral
- Who made the referral
- Reason for referral
- Age at time of first assessment
- Assessment tools used at assessment
- Results of assessment
- Intervention(s) proposed
- Age at which intervention commenced.

The second strand reviewed the implementation of the services from the perspective of SLTs within the CDI and HSE groups. Unlike the previous evaluation, the research team did not speak to parents or teachers directly but took the information that parents provided to SLTs across the course of the evaluation.

The quantitative data used within this study was obtained through the child profile, excel spreadsheets, and word document score sheets. These profiles were used in the original evaluation of the SLT intervention (Hayes et al, 2013) and were used by both CDI and HSE SLTs in order to provide the required profile information.

Assessment and profile data was used by the research team, which were subject to parental consent, in order to provide an estimate of child level outcomes, thus ensuring that children were not overburdened by research participation. The participants were not directly involved with the research team.

The data which was originally obtained from HSE Speech and Language Services in order to compare outcomes between the two models of delivery was found to be incomplete. As a result it was not possible to carry out a meaningful statistical analysis of the data for the full sample of 28 children. In order to use the data that had been gathered a decision was made to carry out a qualitative case study for the available HSE data set. It was agreed that the research team would continue with the original analysis design for the CDI sample.

3.4 Phase 2: Qualitative Data

Sufficient quantitative material was gathered from the CDI sample to allow researchers examine the impact of service provision in order to establish the outcome for the child (in terms of improvement from the first assessment). However, this was not possible with the HSE sample, and with the agreement of the commissioners, a case study method was employed. Working with the HSE a sample of children for whom sufficient data was available were selected by the research team as the case study sample. The HSE case study, involving six children provided descriptive data to allow researchers to better understand the outcomes for each child within the clinical setting.

The progress of each of the six HSE children was followed from baseline (T1) assessment to Time 2 assessment nine months later. The team carried out the case studies and identified child participants for study with the assistance of HSE therapists. It is felt that sufficient material has been gathered through the template, data spreadsheet and HSE SLT interviews over the nine month period to examine the impact of this type of service provision on six children and establish the outcome for the child (based on data from the first assessment). The main purpose therefore was to examine the outcomes for the children in the clinical setting to consider the impact of that particular service on the child.

3.5 Interviews

There were no formal interviews with the parents of the children in each case study. However experienced Speech and Language Therapists from both the CDI and HSE services were interviewed and questions were asked concerning the children and any additional difficulties there may have been for any particular child. Questions were also asked around professional practice and other related issues (See Appendix 4 and 5 for outline of questionnaires). There are common questions in both questionnaires with some additional questions in the HSE questionnaire addressing specific areas for the case study analysis. As this was a change in design from the original permission was obtained from the HSE Principal Speech and Language Therapist to release the files of individual children who had consented to the evaluation. Parental consent had already been collected. Although the settings are identified, the individual children are not.

3.6 Materials

For the purposes of this study it was agreed that Speech and Language Therapists would use standardised tools. However in some instances therapists also used non-standardised tools with children.

3.6.1 Selected Standardised Tools

The *Clinical Evaluation of Language Fundamentals [CELF]* is an individually administered test for determining if an individual has a language disorder or delay. There are various types of CELF assessment that are used depending on the demographical factors. The **CELF Preschool 2** is designed to evaluate aspects of language in children between the ages of three-six years. **CELF 4**; is designed for individuals ranging between the ages of five-twenty one years, assessing four aspects of language (morphology and syntax, semantics, pragmatics, and phonological awareness).

The *Diagnostic Evaluation of Articulation and Phonology [DEAP]* measures an individual's articulation and phonological process using a diagnostic articulation assessment, a diagnostic phonology assessment, and an oral motor screening measure. The **DEAP** is used to assess children between the ages of three-eleven years.

The *Receptive Expressive Emergent Language Test [REEL-3]* is designed to measure language impairments or other issues affecting language development. The **REEL-3** is used for children from birth to three years.

The *Renfrew Action Picture Test [RAPT]* is used to assess the length and complexity of spoken sentence structure by assessing the language of a child when describing a picture in a single sentence. The **RAPT** is used to assess children from three-eight years.

3.6.2 Non-Standardised Tools

In some instances non-standardised tools were used where the SLT deemed it as not appropriate to use a standardised tool on a particular child. In these instances a child was either deemed not to have the capacity or language to complete the test and if administered it may have caused distress. For instance in one case, the REEL-3 was used for a child who was three years old but who was deemed not to have the language skills required to complete a test for a child aged three years plus. There were other instances where a non-standardised tool was used when a standardised tool could have been used. The implications of this for the study design are discussed in the limitations section below.

3.7 Procedure

3.7.1 Information and Consent Sheets

Information sheets and consent forms were agreed upon with the commissioning body and followed the design of forms from the previous study in 2012 (See Appendix 1 and 2). Completed forms were packaged for distribution by HSE and CDI SLT's. It came to our attention that some of the forms being returned by parents were only signed on the 'extended permission' sheet. Some parents had ticked 'Yes' to the multiple choice questions but had not turned over the page to sign the actual consent. In these cases it was agreed that parents would be notified by phone of the mistake and forms would be posted to them for the second time. In each instance parents were happy to sign and return forms. There were two instances where a parent (who had been followed up with) did not return a completed form.

3.7.2 Child Profile Excel Spreadsheet

Drawing on the previous evaluation (Hayes et al, 2012), an excel spreadsheet was used to collect the relevant demographics (see Appendix 3). The following details on children were recorded: Name; pre-school/school; referral source; date of referral; date of initial assessment; treatment required; tools used; diagnosis (across speech, language, voice and fluency), treatment used (across speech, language, voice and fluency); date therapy started; number of sessions offered and number of sessions attended; dates of final therapy and assessment.

3.8 Ethical Approval

Ethics approval was received from University College Dublin, Human Research Ethics Board, School of Psychology, University College Dublin. Ethical considerations were made according to the Code of Professional Ethics of the Psychological Society of Ireland (PSI, 2003). All reasonable measures were taken to ensure the confidentiality of the information provided. All data has been stored according to the stipulations of the Data Protection Act. All of the information obtained has been stored on a password-protected computer database to which only the research team will have access. Each individual entered on the database was assigned a unique numeric identifier in order to ensure anonymity.

Tests were administered on a voluntary basis and participants were informed that they could withdraw from the study at any point. If they felt that their participation in the study had become unduly stressful, they were free to discontinue at any time. This would not affect in any way the quality of care that participants received in either the CDI SLT Service or HSE SLT Service. It would also not affect the access that they would have to specialist services.

3.9 Limitations

While the current evaluation extends the work of the previous study, a number of limitations are acknowledged.

The study had been scheduled to commence in October 2013 in which a nine month timeline for Time 2 assessments could have met before the following June i.e. (within the school year). A delay in ethics approval impacted on 1.) the commencement of the study and 2.) the timely dispersal of information sheets and consent forms to parents. As a result in some instances SLTs were unable to collect the consent forms from parents at the initial assessment and requested that they be sent through the post. The return was not as high as expected.

As a result of low numbers it was agreed to include children from another HSE clinic which meant that a number of participants consented retrospectively. Some of the retrospective participants did not have standardised assessments given that the research team had not been involved with the initial assessments of these children.

It was also the case that in a number of instances a non-standardised assessment tool [STAP] was used by HSE therapists during initial assessments where a DEAP (standardised tool) had been requested tool by the research team. In other HSE

cases non-standardised tools were administered as it was deemed inappropriate to administer standardised assessments to children with complex needs (see case study analysis).

To allow for comparison across both CDI and HSE samples the original research design identified standardised measures to be used at both T1 and T2. However, it emerged that, within the HSE sample non-standardised measures were used in a number of cases which altered the sample to a degree that made comparisons difficult.

In the initial design, a six-month time frame from initial assessment (baseline) to Time 2 was agreed in 2013. However, following the commencement of the evaluation both CDI and HSE SLTs expressed concerns and suggested that the time period was too short. These concerns related to the issue of dosage and whether it would be possible to see any change in the progress of the child within such a short time frame. As a result the time frame was extended to nine months.

The extension to nine months meant that the majority of Time 2 assessment dates fell during the summer period. As a result it was sometimes difficult for parents to attend. A two-week period on either side of the Time 2 assessment date was then given to allow for greater flexibility when booking the Time 2 assessment dates.

Finally, the small sample size has impacted on the analysis of both samples. As non- standardised measures were used predominantly at Time 1 in the HSE sample, further analysis of outcomes at Time 2 was not possible. This resulted in the researchers being unable to fulfil the initial aims of the study by drawing on a comparison of outcomes between the two samples. This led to an agreed decision to carry out analysis of T1 and T2 data for the CDI data and a descriptive case study analysis of the HSE data set.

Results



Chit Chat



The following chapter contains the findings from the analysis of the data gathered by CDI and HSE Speech and Language Therapists to date. Semi-structured interviews were conducted with representatives from the speech and language teams of both CDI and the HSE (Appendix 4 and 5) and these too were analysed.

The descriptive analysis below shows the results for 36 children from the CDI data set and 28 from the HSE sample. Descriptive detail on gender, referral source, whether the child was in pre-school or school, if the child had an additional language in the home and waiting time were analysed for both groups. However CDI also shows statistics for previous referral, onward referral, treatment, assessment tools and gives the outcomes at Time 1 and 2 assessment.

A second strand of qualitative research in the form of case study analysis from the HSE sample has been completed and analysed thematically (presented in the second section of this chapter). Given that a significant number of children in the HSE cohort had been measured using non-standardised measures at Time 1, standardised tests could not be carried out with these children at the Time 2 interval. The families in question were offered a second assessment if they wished to avail of it as per ethics approval.

4.1 Demographic Characteristics of Children (CDI and HSE)

In this study 36 children were assessed and tracked within the CDI data set. Of this population, 72.2% (n=26) were male and 27.8% (n=10) were female with all children aged between three and six years of age.

In the HSE sample, 28 children were assessed and tracked. Four of the 28 were discharged at initial assessment, three of the four children were found to be within normal limits (WNL). Of the 28 children, 57.1% (n=16) were male and 42.9% (n=12) were female. Similarly all children were aged between three and six years of age.

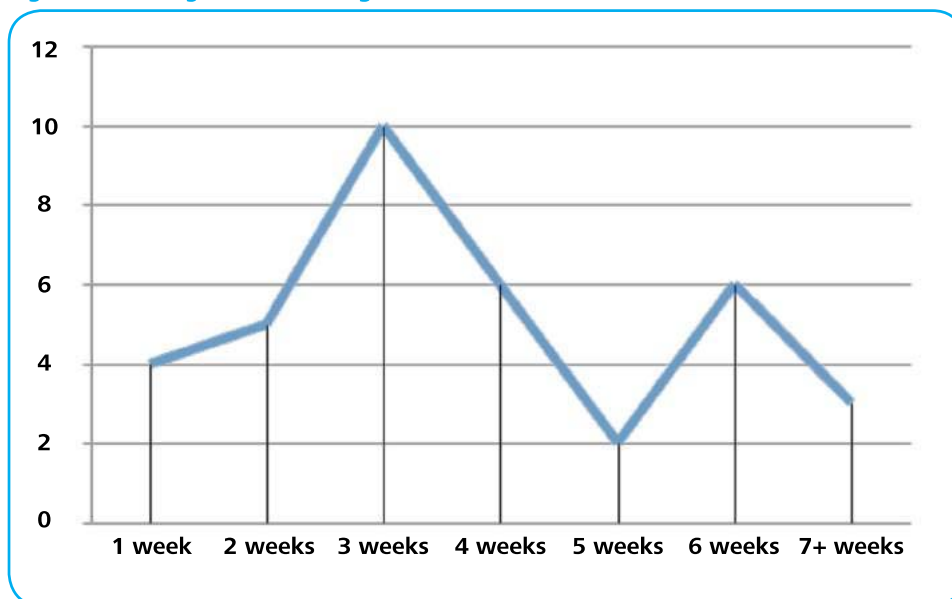
At the time of this study 86.12% (n=31) of CDI children were attending Early Years service and 13.88% (n=5) were attending school. Out of the 36 children within this sample 25% (n=9) came from homes where languages other than English were spoken.

In the HSE group, 71.4% (n=20) of children were attending preschool and 14.3% (n=4) were attending school. The four remaining children had 'no formal education' (14.3%). Out of the 28 children within this sample 21.4% (n=6) came from homes where languages other than English were spoken.

4.2 Waiting Time

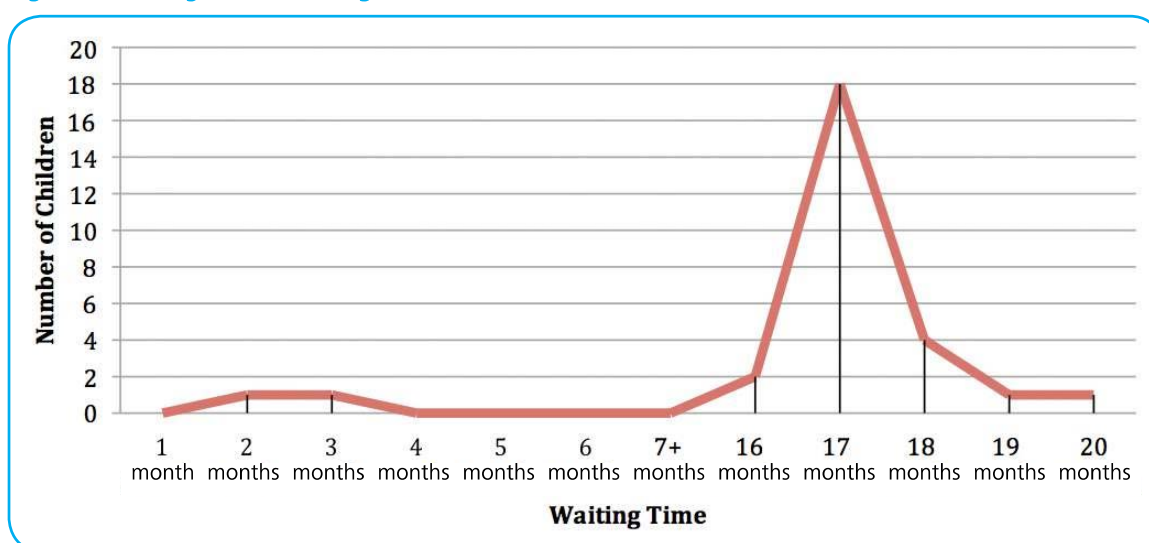
For the majority of children the waiting time from the date of referral to the initial assessment in CDI was three weeks. As shown in Figure 1, the shortest waiting time for children was one week, with four children being seen in this time; and the longest waiting time was just over seven weeks, with three children being seen in this time.

Figure 2: Waiting Time following referral to CDI SLT Service



The majority of children in the HSE sample were waiting 17 months for an initial assessment. However children who were identified with complex needs at initial assessment were placed under a priority pathway (as explained in Chapter 1) which shows a waiting time of less than three months for intervention.

Figure 3: Waiting Time following referral to HSE SLT Service



4.3 Referral Source (CDI)

Figure 3 below shows that the majority of referrals for CDI children were made by the mother (N=16), followed by the parents of a child (N=12) (these were instances where it was not identified if it was mother or father) and lastly by the father of the child (N=4). This shows that exactly one third of referrals came from 'parents' as opposed to an individual parent (either 'mother' or 'father' category selected). Within this study population, there were no referrals made on behalf of a child from a School or Preschool. It is also noted that Parent Care Facilitators working with parents as part of the approach used by CDI also assist parents in making a referral. Referrals made by a Public Health Nurse (PHN) came to 5.6%.

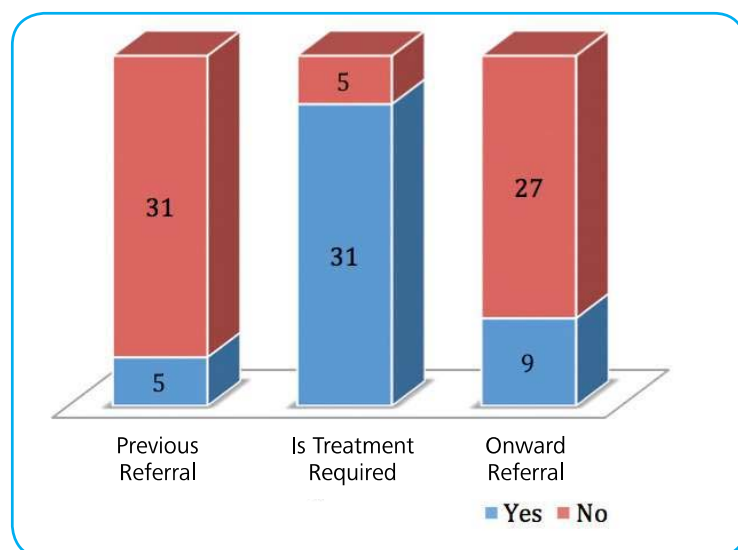
In stark contrast to CDI, HSE figures show that the PHN was the main source of referral (n=28) with only one instance where a parent made the referral. The remaining referral came from a category entitled 'other'. In this case the particular child was referred to the clinic by the Speech and Language Therapist from a hospital setting.

4.4 CDI Data Analysis:

4.4.1 Treatment and Referral:

Figure 4 (below) shows an amalgamation of three key factors: Previous Referral – which shows that 13.9% (n=5) of children did have a previous referral but the majority, 86.1% (n=31), did not have a previous referrals. Is Treatment Required – which shows that 86.1% (n=31) of children were in need of treatment; Onward Referral – which shows that 25% (n=9) of children received an onward referral, while 75% (n=27) did not receive an onward referral.

Figure 4: Treatment and Referral



4.4.2 Intervention

A key aspect of the CDI SLT Service for children was the model of implementation which involved the three elements of direct intervention; parental support and setting staff training. The CDI SLTs provided direct therapy for the children involved in this evaluation. There were different levels of intervention based on severity of difficulty. Therefore the number of sessions for each child depended on the level of need. Figure 5 outlines the Language Assessment Measures used at Time 1 (initial assessment) and Time 2 (nine months later). As can be seen below the CELF Pre- School is the most popular with the Preschool Language Scale, Fourth Edition (PLS-4) being used less; a combination of both occurred in nine instances. Figure 6 outlines the Speech Assessment Measures used at Time 1 and Time 2 as can be seen the DEAP Phonology Assessment is the most popular with a combination of both DEAP Phonology and Articulation being used in four instances.

Figure 5: Language Assessment Measures

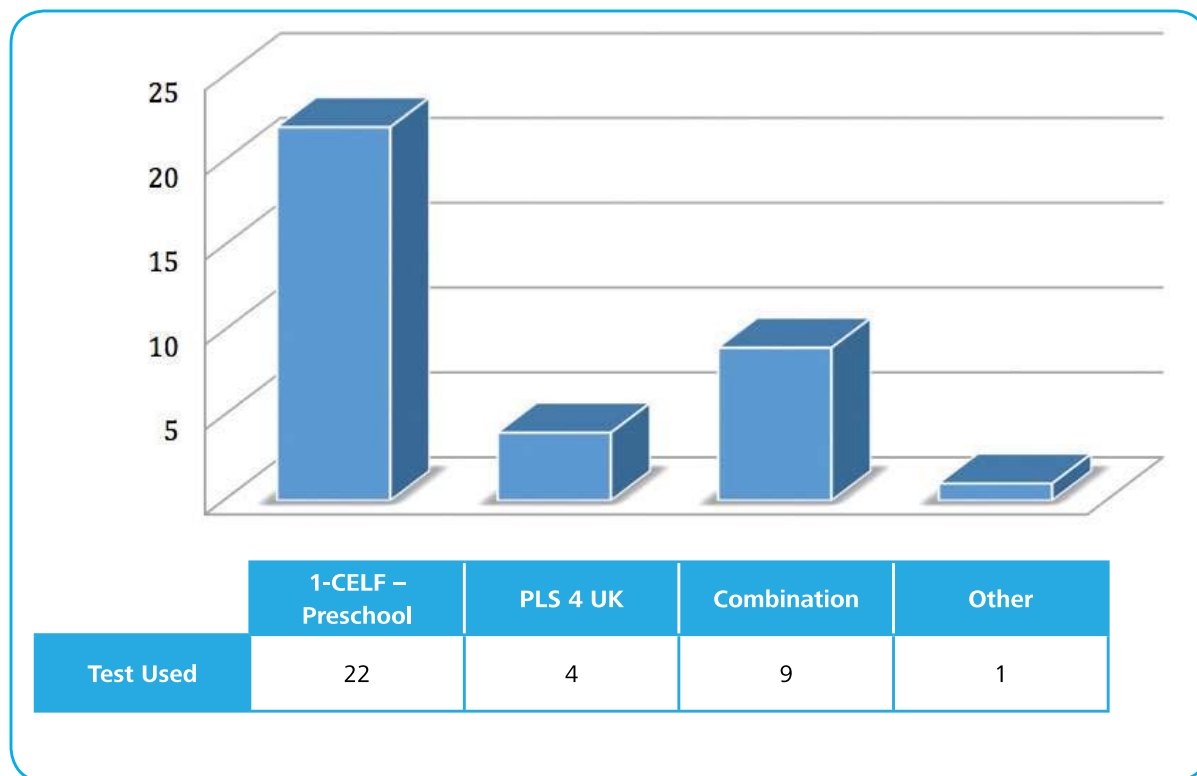
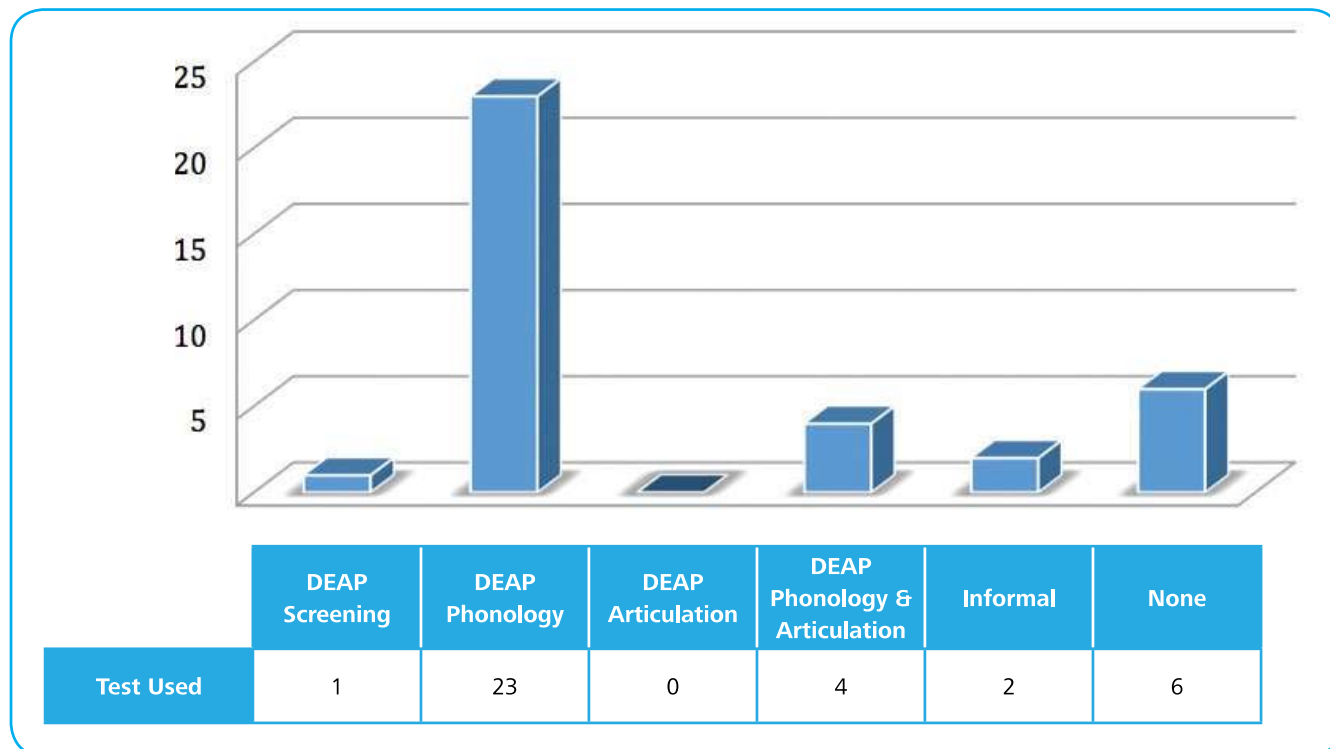


Figure 6: Speech Assessment Measures



4.4.3 Parental Involvement for CDI Sample

When examining the number of sessions offered to children with the number attended by both child and parent we find that there is a positive strong relationship between the number of sessions offered and the number of sessions attended ($r(26) = .68, p < .001$). This also indicates a similar pattern for all parents regardless of whether they were offered a low or high number of sessions.

Table 2: Parental Involvement for CDI Sample

Statistics				
		What are the number of sessions	What were the number of sessions	What were the number of sessions parents attended?
N	Valid	28	28	28
	Missing	8	8	8
Mean		10.04	8.61	7.64
Std. Deviation		3.727	3.107	3.413

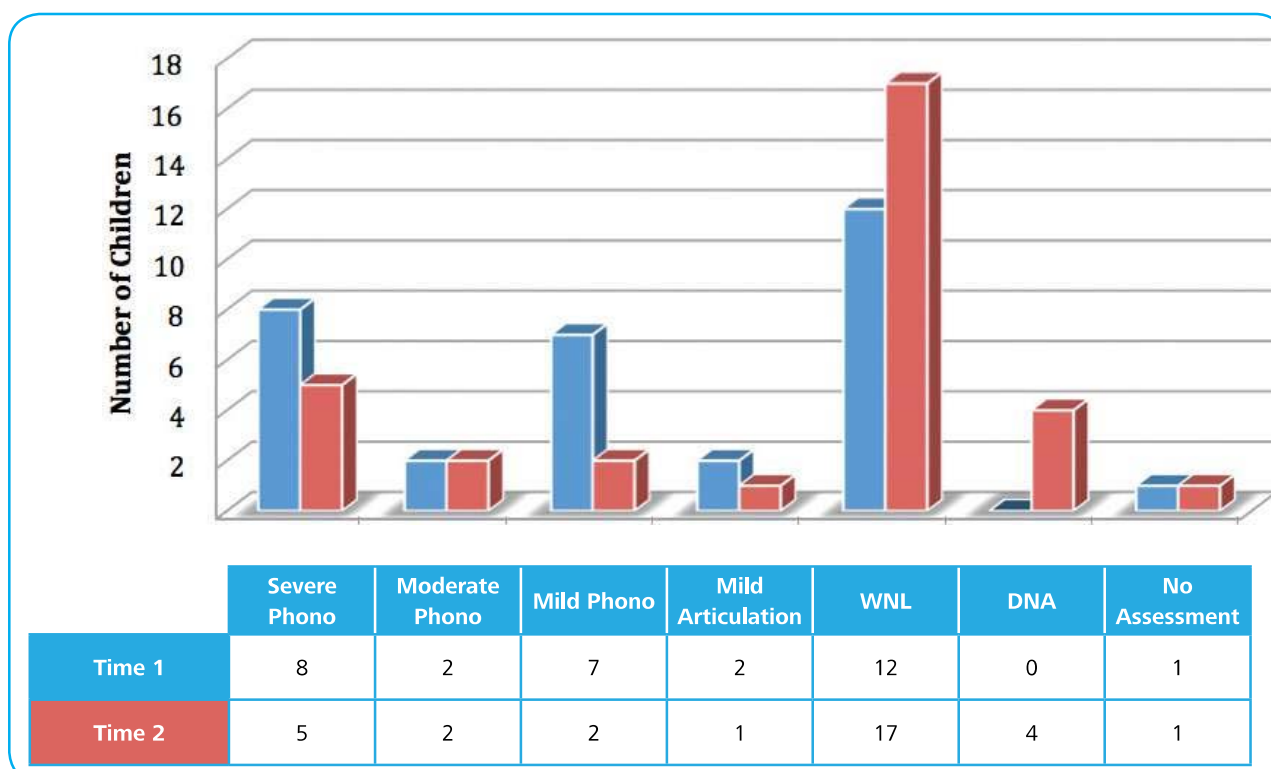
The number of sessions offered ranged from 0 to 16 with the most frequent being 10 sessions for seven children and eight sessions for four children.

4.4.4 Speech and Language Outcomes

Data was submitted for descriptive analysis in SPSS to examine if there were any significant changes over time from the initial assessment at Week 0 (Baseline, Time 1) to Time 2 (nine months later). The analysis is based on the numbers of children in each category at each time point.

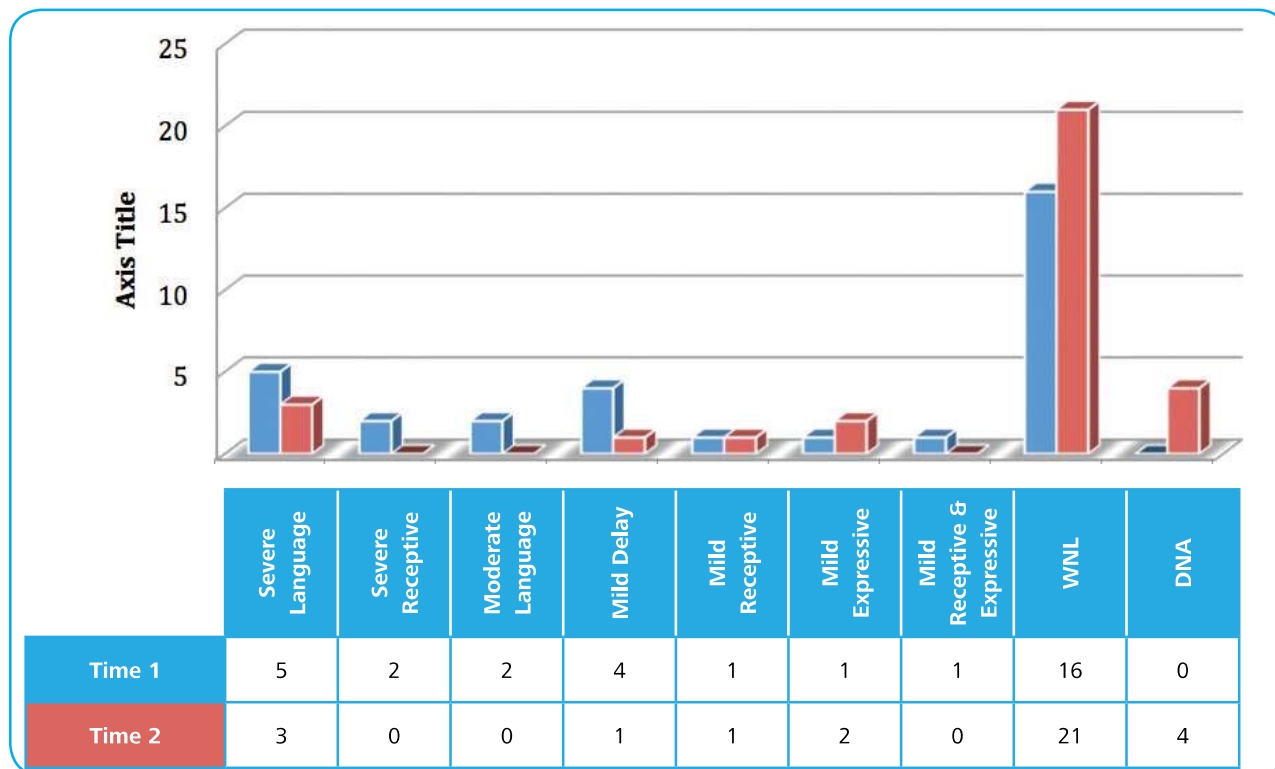
Figure 7 [below] displays the outcome in speech diagnoses for 32 children out of the original number in the CDI sample ($N=36$) at Time 1 and Time 2. Four children were removed for this analysis as they had been found to be discharged after initial assessment and subsequently did not receive any therapy.

Figure 7: Speech Outcomes²



Figures 7 and 8 indicate an overall decrease in the severe category in both speech and language with related increases into the moderate and mild categories. The number of children moving into the within normal functioning (WNL) category has also increased showing a positive trend in scores and subsequent diagnosis across time for the CDI sample. However, as a number of these children were monitored rather than receiving treatment between T1 and T2 it would be misleading to identify them as a population of children with speech and language difficulties for whom early SLT intervention was successful.

Figure 8: Language Outcomes³



4.5 HSE Data Analysis - Case Study Analysis

4.5.1 Background

For the purpose of this case study analysis additional information was obtained through a phone interview with each of the six children's Speech and Language Therapist. A case study method was employed with the HSE data set because the original method developed to allow for a comparative analysis between the two services was no longer possible.

The interviews collected information from the initial assessment mainly and also sought additional information on dosage (whether or not therapy had been provided) and the Time 2 assessment (where a second assessment had been carried out). The initial assessment involves case history taking, observations of communication strengths and challenges, formal or informal assessment, parental checklists and feedback regarding child's needs and parental concerns, with a view to determining the presence or otherwise of a communication need requiring the intervention of an SLT.

In some instances, the child and family may be referred on to a specialist service for further assessment and determination of needs. In most instances the majority of children are initially determined to require community SLT with a small number discharged as within normal functioning

² McNamara analysis was run on speech outcomes but was not found to be conclusive due to the small sample size and sub categories (see Appendix 7 for analysis).

³ McNamara analysis was run on language outcomes but was not found to be conclusive due to the small sample size and sub categories (see Appendix 7 for analysis).

4.5.2 Assessment and Outcomes

The following provides descriptive data and outcomes for each of the six children within the clinical setting:

The case study sample comprised of six children all aged between three and six years of age. The main pattern of intervention was with primary language difficulties (four of the six children). Standardised tests including the DEAP, CELF and PLS4 (see method for description of each) were administered to participants. A REEL was carried out where it was deemed inappropriate to use a standardised tool with a child who presented with significant difficulties. Non-standardised transcripts were also used.

Speech Outcomes

Two children showed difficulties in both speech and language. In one instance a standardised tool was used to measure speech (DEAP) and in the second case a non- standardised tool was used. As a result there is only a follow-up at Time 2 for one child who showed movement from moderate (Time 1) to severe (Time 2) for speech.

Language Outcomes

At Time 2, an assessment had been carried out in four of the six cases for language. In two cases language outcomes moved from severe to moderate, while in another case where the child was diagnosed with a specific language disorder, the diagnosis moved from moderate to severe.

Speech and Language Outcomes

In the remaining case the child presented with both speech and language difficulties. In this instance standardised tools were used in measuring both speech and language. This child did not have any therapy between the Time 1 and Time 2 assessment period and had deteriorated from a moderate to a severe outcome at Time 2 for both speech and language. It is noted that the child was later given six sessions of therapy and showed an improvement in both speech and language at review.

Fluency and Voice:

Four children in the group showed no concern in the areas of fluency and voice. It was not possible to measure these areas in the remaining two children as they had other complex needs and were referred to Assessment of Need for assessments.

Significant Difficulties

Two children presented with significant difficulties both of whom were significantly impaired on measures of social interaction. As a result it was not possible to complete a standardised test in these instances and the children were referred to a multi- disciplinary team and AON for assessments.

Therapy Offered

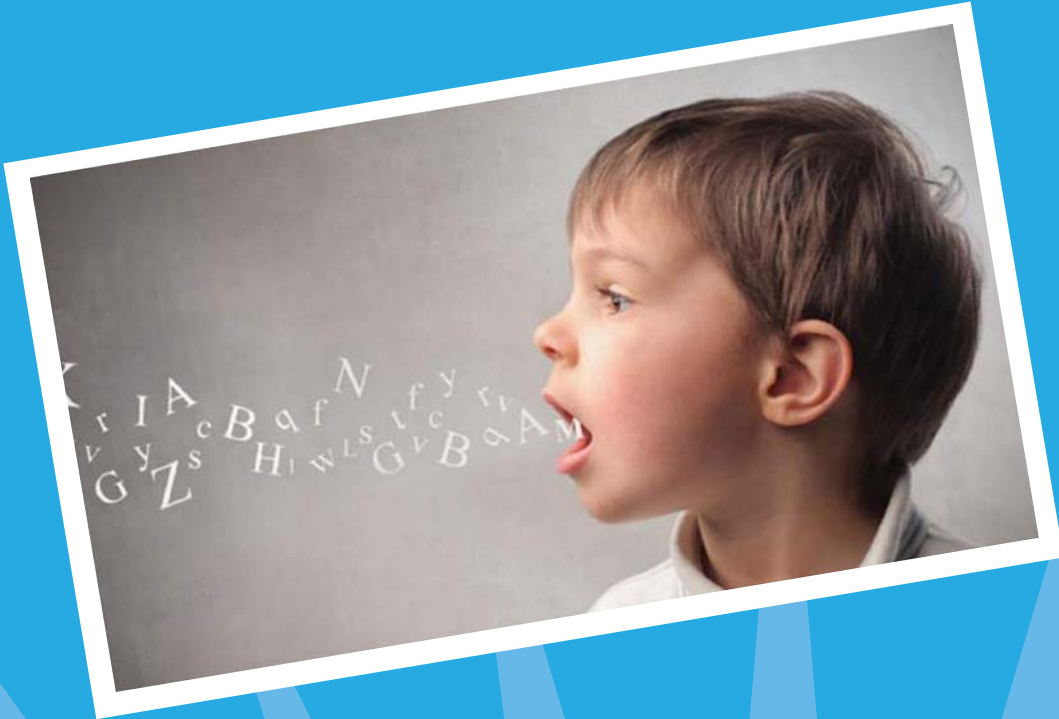
All children in the six cases studied were offered therapy. Two of the cases showed lack of parental participation and support with one child attending none of the sessions offered while another missed one third of sessions. In the first instance the family of the child were not convinced that there was a need for therapy despite the diagnosis being given in the severe range for language. In the other case, the child in question was found to have severe needs and was referred on to the early intervention team for further assessment and determination of needs after having received three separate blocks of therapy (eight, seven and six sessions).

As this child and family had been attending a number of appointments in different departments and had met a lot of professionals it was agreed that it would be preferable for the child and parent to be linked in with a multi-disciplinary team where both children and parents can become more familiar with staff and vice versa.

Continuity of Care

In four of the six cases a different therapist saw the child between assessment and therapy and again between therapy blocks. It appears that the continuity of care is impacted by staffing in the HSE. It is possible that if the centres were fully staffed this would no longer be an issue.

Discussion



Chit Chat



Investment in early years prevention and early intervention is particularly important for young children, where significant changes in their growth, development and outcomes take place within a relatively short period of time (Department of Children and Youth Affairs [DCYA], 2011).

The United Nations Convention on the Rights of the Child stipulates that *“States Parties recognise the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health,”* (UNCRC, Article 24, 1989).

Ireland is therefore obliged to *“ensure that no child is deprived of his or her right of access to such health care services,”*(UNCRC: Article 24, 1989).

Social attitudes to children have changed dramatically in recent decades, notably through the influence of the UNCRC (1989). This imposes an obligation on the state to move as swiftly as possible towards the full realisation of the rights guaranteed in the Covenant. Since the publication of the Children’s Strategy in 2000 most policy documents make a reference to the rights of the child. The National Policy Framework for Children and Young People – Better Outcomes: Brighter Futures (2014) notes specifically that Ireland will be a place *‘where the rights of all children and young people are respected, protected and fulfilled; where their voices are heard and where they are supported to realise their maximum potential now and in the future’*. This commitment has been strengthened by the recent Amendment on children’s rights, which was signed into law in April 2015. We must therefore rely on the good faith of the state to identify vulnerable groups including children, particularly those in disadvantaged areas and to provide high quality services to meet their needs. In the new Programme for a Partnership Government there is a commitment to establish a new model of In-School Speech and Language Therapy. It has been shown across the OECD as the most effective way of managing and intervening with the educational and social issues consequential to speech and language difficulties in children. It will involve greater collaboration between parents, schools and primary care services that has been proven to be effective internationally (Irish Government, 2016:92).

Despite conflicting theories there is a definite consensus throughout the literature reminding us that speech, language and communication skills are vital for the cognitive, emotional and social development of children. Socio-economic status is a factor which has been long associated with language development with children from lower socioeconomic backgrounds experiencing difficulties in language development compared with children from higher socioeconomic backgrounds. The literature shows that children living in disadvantaged areas are generally under referred and under diagnosed. As noted earlier by Snow et al (2013), rates of early identification are low and Rafferty (2014) has pointed to the fact that, while figures are hard to find for Ireland, prevalence rates of language delays are particularly high in disadvantaged areas. An additional difficulty is the fact that parents of children who develop difficulties with communication often have problems in accessing the support they need for both themselves and their child.

It is clear that some children will never get picked up by mainstream services. This is evident in the numbers of children who were assessed and treated by the CDI SLT Service in 2014/2015. Statistics show that 72% of all referrals received into the CDI SLT service were previously unknown to the HSE. 28% of referrals received were previously known to the HSE SLT department. Early assessment must therefore be offered to all children for whom there is concern regarding their speech, language, voice or fluency. Literature shows that early intervention with children works and that early assessment should be followed by evidence-based interventions that are developed in partnership with the parents and the child. Early intervention can reduce support required in the long term and be more cost effective in terms of access to other services later on for the child and family concerned.

The benefits of early intervention regarding speech and language are clear from results. Research shows that where intervention takes place at a later stage, the probability of involving a number of different agencies and/or the involvement of support in the classroom for the child can occur. Late identification of difficulties can lead to significant stress for both the young child and the family.

CDI was developed as an early intervention programme with the aim of improving the outcomes of young children through early identification of difficulties and the provision of on-site support and, where necessary, onward referral. The SLT programme was one such on-site intervention. This study was commissioned to compare the impact of an on-site SLT service with a clinic based one on outcomes for children.

For a variety of reasons the evaluation team was unable to pursue the original study design but, building on what data we could gather, the following key findings and recommendations have emerged.

Key Findings

- Significantly more boys (n=26, 72.2%) were referred to the CDI Speech and Language Therapy Service than girls (n=10, 27.8%) with all children being aged between three and six years of age. Similarly with the HSE group, 57.1% (n=16) were boys with fewer girls being referred at 42.9% (n=12).
- The majority of children in the study were attending preschool, with 86.12% of CDI children in pre-school and 71.4% in the HSE group.
- Children were most commonly referred to CDI by their parents with 'mother' being the main referral source.
- HSE figures show that the PHN was the main source of referral (n=28) with only one instance where a parent made the referral. The remaining referral came from a category entitled 'other'.
- Speech and language outcomes for CDI children indicated an overall decrease in the severe category into the moderate and mild categories. Children moving into the within normal functioning (WNL) category also increased showing a positive trend in scores and subsequent diagnosis across time for the CDI sample.
- CDI statistics from 2014/2015 show that 72% of the children referred to the CDI SLT service had not been identified to the HSE Speech and Language Therapy Service. In this study, it was found that the majority of children in the CDI sample 86.1% (n=31) did not have a previous referral.
- Families were assisted in making referrals for their children by the CDI Parent/Carer Facilitators (PCF's) on site in the pre-schools and schools. The PHN acts as a link person in the HSE.
- When examining the number of sessions offered to children with the number attended by both child and parent the research found that there is a positive strong relationship between the number of sessions offered and the number of sessions attended for both the CDI and HSE samples. Analysis of the CDI data indicates a similar pattern for all parents regardless of whether they were offered a low or high number of sessions ($r(26) = .68, p < .001$). Of the six HSE cases studied, four showed a good level of parental involvement.
- This study indicates that the HSE Speech and Language Service may be the first port of call for local public health nurses who are made aware of, or observe that a child is presenting with a developmental difficulty. It was also apparent that therapists are effective in identifying indicators in young children and referring on to the appropriate service.
- In two of the six HSE cases, children presented with comorbid conditions of Autism Spectrum Disorder (ASD) and intellectual disability. Therapists described how children would not co-operate with the standardised test. Carrying on may have caused distress to the child and as a result individual therapists used qualitative methods as a way of giving an informal diagnosis.
- HSE SLTs found that the families they work with need to be in a position to attend a number of different appointments in any one week. Children with more complex needs may start education later and may not attend pre-school due to difficulties they may have with toilet training and so forth.

Implications of Evidence:

- The CDI Speech and Language Therapy service follows a social care model where the SLT is embedded in local community early years and primary school settings.
- The CDI Speech and Language Therapy model provided early intervention and therapy to children creating a greater likelihood that the CDI children, having been identified at an earlier stage in their communication difficulties, could recover. In addition CDI children receive interventions starting less than one month after assessment. Children's early language environments are critical for their cognitive development, school readiness and ultimate educational attainment.

- Research confirms that school supports are also important for both child and family. There is a need for services to be co-ordinated around a child and his or her family. In some instances parents need help in co-ordinating the family's relationship with numerous professionals.
- International research evidence indicates that supports for language learning are best undertaken in naturally occurring environments and through activities in the child's life. Continued strengthening of the capacities of parents and staff who are in the young child's environment through information and guided support is recommended.
- The fact that CDI children and their families did not need an external referral source removes a significant barrier to receipt of assessment and therapy. This is especially the case given the significant and complex difficulties that can exist for families in disadvantaged areas.
- For the majority of children the waiting time from the date of referral to the initial assessment in CDI was three weeks. In comparison it could take up to 17 months for the HSE children to receive assessment following referral. A delay of this kind can further impact on the child's progress. However it is important to note that, since this data was collected, waiting times have decreased to 10 months in recent months.
- The waiting time for the HSE speech and language service could be significantly reduced if local community early years centers and primary schools had access to nominated SLT services.

Conclusion and Recommendations



Chit Chat



This report strongly highlights the way in which the CDI SLT model supports linkages between parents, children and the work of the HSE. The three-pronged model developed by CDI SLT offers a preventative and early intervention role for children exhibiting minor speech and language difficulties; a training role to support parents and early years practitioners in their work with young children and an early identification role in identifying children with more complex speech and language needs.

In Budget 2016, a number of key developments in the early years sector were outlined. Government has provided for a second Free Pre School Year commencing 2016. This development will allow all children access to two years pre-school before attending primary school and reflects the original CDI model of early intervention. This extended time will allow the CDI SLT model to give ongoing training and support to staff and parents, and consolidate the speech and language development of the young children attending early years services. In addition Budget 2016 also committed to improving access to early years services for children with disabilities. A likely outcome of this decision is that more children with speech and language needs will attend community based early years services. Funding has been promised to create the position of inclusion officers within settings providing the FPSY. The new Programme for a Partnership Government has included the commitment to developing a new model of In-School Speech and Language Therapy. This report finds that the CDI SLT model of support for children and families offers an additional support system which would ensure that children with language and communication difficulties and disabilities not only have access to early years services but also to the additional speech and language services they may need.

Initiatives to tackle disadvantage have become the focal point of government policy both here in Ireland and in other European countries. The Sure Start Programme in the UK is one such initiative, which set out to target areas of high deprivation and poverty across England. Its aim was to develop improved and coordinated services for families, thus working to improve the life chances of children as part of a wider initiative to fight social exclusion. Taking a lead from this approach the Irish government, through a combination of exchequer funding and philanthropy, has developed and supported targeted interventions such as the Prevention and Early Intervention Programme [PEIP] and its successor the Area Based Childhood Programme [ABC]. Unlike the Sure Start Programme, however, there is no strategy to integrate such initiatives into the mainstream so that children and families in need of such supports can access them irrespective of where they are living.

Findings from this study indicate that the CDI SLT model of service continues to provide an essential response to those young children with speech and language difficulties, evidenced by an overall decrease of children in the severe category into the moderate and mild categories. Given the gaps in current services as a result of underinvestment in the last few years, CDI has a significant role to play in identifying children with communication needs at an early age. It is clear that CDI has helped to increase access for children, reduce stigmatisation and increase parental and school involvement in the process. The three-pronged social care model developed is one that also enhances staff understanding of the need for a linguistically rich early learning environment and one that is sensitive and responsive to the specific needs of each child.

Since 2014, Tusla, the Child and Family Agency is the dedicated State agency responsible for improving wellbeing and outcomes for children. The Agency is responsible for the inspection of preschools and also has responsibility for family and parental support. In their literature on family and parental support (Tusla, 2015) the Agency does not explicitly recognise the potential of early years services as a family support service with the potential to support families and children, enhance child outcomes and link families with other community and specialist services. Studies such as this one highlight the potential impact of integrated models of early intervention such as the CDI SLT model as family support measures. The findings from this study could usefully inform Tusla developments on family and parental support.

The variation in mainstream HSE services throughout Ireland highlights the need for a renewed and strengthened national policy that will standardise services for children and families and invest in an integrated service model which recognises and builds on the potential of community settings such as those provided through the CDI initiative. For example some HSE areas (particularly in disadvantaged areas) do not have the required number of therapists to deal with the demand. In other instances, speech and language therapists work within schools and directly with teachers and assistants but not with other services, such as early years services.

The frustration experienced by parents as reported in the Conroy report (2014) regarding the lack of access to specialist assessment and support is evident. It clearly states that a child's access to speech and language therapy depends on

where they live in Ireland. It goes on to say that International standards supported by research recommend case loads of between 30-65 children for each speech and language therapist depending on the age and needs of the child. Yet an HSE therapist in Tallaght West was documented as having over 200 children on her books. The responsibility put on therapists to carry such heavy caseloads is far from the recommended number. Conroy reports that as many as 10% of speech and language therapists are on leave. Including maternity leave, leave of absence or illness leave. With many of these leave covers remaining vacant, staff are required to carry heavy case loads and responsibilities while parents are left feeling that their child's needs are not understood.

Findings from this study foreground the need to develop more outreach SLT services linked into existing quality community based provisions such as the CDI SLT Model. Such integrated, community based SLT services would complement the more traditional clinic based medical model and provide a support to clinic-based services. In addition they would be of benefit to those children with less complex speech and language needs and their families.

Key Recommendations:

- Chit Chat has been shown to provide a vital service as evidenced by its effectiveness as an early intervention and represents an effective early years, primary schools and community based model of intervention. We welcome the Programme for a Partnership Government which sets out plans to establish a new model of In-School Speech and Language Therapy to support young children, and **recommend that the CDI SLT model of early intervention is maintained and replicated.**
- Community based SLT services complement and support the more traditional clinic based medical model. In addition they benefit those children with less complex speech and language needs and their families. **We recommend the development of more outreach SLT services linked into existing quality community based provisions.**
- This study demonstrates the value of the CDI SLT model and illustrates how early years services and primary schools, with embedded SLT support, can provide a central family support, guiding parents and creating links, where necessary, between parents and other services. Such a model is particularly valuable in cases where children attending from areas of social disadvantage, where English is a second language or where children have additional needs. **We recommend that this model be integrated within services providing the Universal Free Pre-School Year.**
- Given the complex nature of speech and language development in the early years and the increasing population diversity, **we recommend that assessment of speech and language is given careful consideration by appropriate professionals, with the accompanying training and supports to maximise a consistent, but child centred approach.**
- The findings from this report illustrate the important contribution that the early year's practitioner can make to the speech and language development of young children, and support of their parents. **We recommend that early year's practitioners be recognised as professionals and that due consideration be given to their contribution and expertise as a source of referral to mainstream SLT services.**
- Given the importance of parental involvement in the process, it is important that any speech, language and communication programme is designed with them in mind. Parents play a key role in determining the outcomes for their children. **We recommend that service design for SLT and other primary care services reflects the evidence regarding effective mechanisms to promote parental engagement, particularly in disadvantaged communities'.**
- This study highlights the potential of the early years setting as a family support service, particularly in relation to working with parents and their children to enhance and support early speech and language development. **We recommend that early years services be recognised and supported as family support services.**
- Early years settings are ideal points of access for parents where they can learn more about language and communication with their children. With training and support, early years settings could become a central component of intervention approaches for young children. **We recommend that early year's organisations and City/County Childcare Committees work with the HSE and TUSLA to develop and strengthen**

the position of early year's services as sites of parental support, prevention and early identification and referral using the CDI SLT model as a guide.

- **We recommend the continued strengthening of parent and staff capacities for those who are in the young child's environment, through information, training and support.**

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Appendices:

Appendix 1: Information and Consent Forms

Information sheets and consent forms were agreed upon with the commissioning body and followed the design of forms from the previous study in 2012.

Appendix 2: Parent Guardian Consent Form

Appendix 3: Information letter for staff of Settings Participating in the Evaluation

Appendix 4: Parent Friendly Information Sheet

This information sheet accompanied the consent forms when sent by post to HSE families.

Appendix 5: Child Profile Excel Spreadsheet

Drawing on the previous evaluation (Hayes et al, 2012), an excel spreadsheet was used to collect the relevant demographics. The following details on children were recorded: Name, pre-school/school, referral source, date of referral, date of initial assessment, treatment required, tools used, diagnosis (across speech, language, voice and fluency), treatment used (across speech, language, voice and fluency), date therapy started, number of sessions offered and number of sessions attended, dates of final therapy and assessment.

Appendix 6: SLT Questionnaire (CDI)

Questionnaires were administered to both CDI and HSE SLT's during a phone interview.

Appendix 7: SLT Questionnaire (HSE including Case Study)

Questionnaires were administered to both CDI and HSE SLT's during a phone interview.

Appendix 8: HSE Guidelines (Incl. Priority Pathway Information Sheet)

Appendix 9: McNamara and Chi Square Analysis

Appendix 1: Information Letter for parents of Children Participating in the Evaluation of the Childhood Development Initiative (CDI) Speech and Language Therapy service and the HSE Speech and Language Therapy services

Appendix 1: Information and Consent Forms



Information Letter for Parents of Children Participating in the Evaluation of the Childhood Development Initiative (CDI) Speech and Language Therapy service and the HSE Speech and Language Therapy services

Dear Parent/Guardian

You and your child are being invited to take part in an evaluation study. It is important for you to understand why this evaluation study is being done and what it will involve. Whether you choose to take part in the evaluation or not will not affect your child's inclusion in the speech and Language therapy service.

An external research team will be leading the evaluation of Childhood Development Initiative (CDI) Speech and Language Therapy service and the HSE Speech and Language Therapy services, in order to compare both services. The information provided by the research will help us understand how to give the best possible service for children and their parents in the future. The research has two parts to it, one which gathers information on children's progress and one which explores speech and language therapists' views. You are being asked to take part in the evaluation of children's progress.

If you consent to your child taking part, information will be collected as usual by the speech and language therapists working with the children at the initial assessment. This involves completing standard tasks that examine your child's speech and language ability. All children taking part in the evaluation will then be reassessed by a qualified speech and language therapist nine months later in order to track the child's progress.

For the evaluation the following information will be collected: Date of referral; Age at time of referral; Who made the referral; Reason for referral; Age at time of first assessment; Results of assessment; Support proposed; Age at which speech and language support commenced (if at all); Progress reports; Final assessment report. These details will be gathered by the Speech and Language Therapist and provided to the research team using two documents, a Child Profile Template and an Information-Sharing Template. This means that the research team will not meet with your child, instead the speech and language therapists will pass information to them with your consent.

Children will be given an I.D. number at the start of the evaluation and they will be identified by this I.D. rather than by their name from then on. The speech and language therapists will know the names of the children participating. However the only people who will have access to child names and the ID numbers are the research team. Child information will not be stored with names included so there will be no way for anyone apart from the research team to tell what data goes with which child.

Children can withdraw or be withdrawn from the project up to a point. If you would like to remove your child's data from the study please contact a member of the research team. However please note that once data has been anonymised for archiving individual data cannot be withdrawn. Also it will not be possible to remove your child's information from any reports that have been published/prepared up to that point.

Reports on the progress of the evaluation will be completed by the evaluation team at regular intervals and submitted to CDI. These reports will focus on group information rather than individual children. On completion of the evaluation, a report will be published and information will be held in accordance with CDI's policy on all evaluations to allow others

to learn from the results. The findings will not be about individual children or families but will be about the overall group of children and families.

Judy Irwin of the research team will be a point of contact should parents have any additional questions or concerns about the evaluation (see contact details below).

Information on future research participation

This is an important piece of research and the research team values you and your child's participation. At the end of the research anonymised information gathered during the research (which cannot be used to identify you) will be passed to CDI who will use it for future research on speech and language services and may make it available to other researchers interested in this area.

The research team are also asking your permission to contact you again in the future if the opportunity arises to look at how children are developing later in life. A separate consent form is included to allow you to indicate whether you are agreeable to future contact.

Thank you for your valued participation

Signed: The Research Team:

Professor Noirin Hayes and Judy Irwin

Contact:	Judy Irwin,	Professor Nóirín Hayes
	Phone: 087 2147131	Phone: 087 2272015
	Email: jirwin@tcd.ie	Email: noirin.hayes@gmail.com

Appendix 2: Parent Guardian Consent Form



This is the consent form for the evaluation of the CDI and HSE Speech and Language Therapy services in Tallaght West. The research team members, Professor Nóirín Hayes and Judy Irwin will be collecting information from the Speech and Language Therapy services.

Please circle the relevant answer for each statement:

1. Have you been fully informed/read the information sheet about this study?.....YES / NO
2. Have you had an opportunity to ask questions and discuss this study?.....YES / NO
3. Have you received satisfactory answers to all your questions?.....YES / NO
4. Have you received enough information about this study?.....YES / NO
5. Do you understand that you are free to withdraw from this study?
 - at any time with the conditions described in the information sheet
 - without giving a reason for withdrawing
 - without affecting your future relationship with the speech and language service.....YES / NO
6. Do you agree to have your child's information shared by the Speech and Language Therapist with the evaluation team?.....YES / NO
7. Do you agree to CDI holding the evaluation report in a secure and confidential manner?.....YES / NO
8. Do you understand that the results of this study are likely to be published?.....YES / NO
9. Have you been informed that this consent form shall be kept in confidence by the Research team?....YES / NO
10. Do you agree that anonymised copies of your child's information can be stored for other researchers to use?.....YES / NO

Child's Name: Child's Date of Birth:
 Signed by Parent: Date:
 Name in Block Letters:
 Parent Contact Number:
 Signature of Researcher: Date:



Extended Permission

The research team members, Professor Nóirín Hayes and Judy Irwin are requesting extended permission from parents to contact them should funding become available for a further evaluation in the future. Please circle the relevant answer below:

1. Do you agree to the research team keeping your name and contact number on file should a further evaluation be undertaken?.....**YES / NO**
2. Should additional funding be made available would you be happy to be re-contacted through the contact details available to the research team?.....**YES / NO**

Child's Name: **Child's Date of Birth:**
Signed by Parent: **Date:**
Name in Block Letters:
Parent Contact Number:
Signature of Researcher: **Date:**

Appendix 3: Information letter for staff of Settings Participating in the Evaluation



Information Letter for Staff of Settings Participating in the Evaluation of the Childhood Development Initiative (CDI) Speech and Language Therapy service and the HSE Speech and Language Therapy services

The Childhood Development Initiative (CDI) and the HSE have commissioned an evaluation of the CDI and HSE Speech and Language Therapy services. Ethical approval will be provided through the UCD ethical approval process. This is an important piece of research as it will enable us to compare both services in order to determine the cost benefits of both services. Only children for whom formal parental consent is secured will take part in the evaluation.

You will be asked to pass information on specific children to the research team. Children will then be given an I.D. number and they will be identified by this number rather than by their name from then on. The only people who will have access to child names and ID numbers are the Research Team. Child data will not be stored with names so there will be no way for anyone apart from the researcher team to tell which child ID goes with which name.

Data will be collected from both the CDI and HSE speech and language therapists working with the children for whom consent is secured, in relation to : Date of referral; Age at time of referral; Who made the referral; Reason for referral; Age at time of first assessment; Assessment tools used at assessment; Results of assessment; Interventions(s) proposed; Age at which intervention commenced (if at all); Progress reports; Final assessment report.

At a later stage interviews will be held with the Speech and Language Therapists only, as the previous study captured the views of staff. You will receive a separate invitation to take part in the interviews where relevant. The only form of support we will require from you in relation to this aspect of the evaluation is your continued support of the service with the children and families you work with. Children will be assessed as usual at the point of initial assessment and then reassessed by a qualified speech and language therapist within a year of the first assessment, in order to track the child's progress.

Consent forms will be issued to all parents of children suitable to take part in the evaluation, with an accompanying information sheet. The information sheet and consent form will be explained to the parents by the speech and language therapist. Reports on the progress of the evaluation will be completed by the evaluation team at regular intervals and submitted to CDI. On completion of the evaluation, a report will be published and held in accordance with CDI's policy on all evaluations.

Thank you for your valued participation

Signed: The Research Team:

Professor Nóirín Hayes and Judy Irwin

Contact: Judy Irwin,

Phone: 087 2147131

Email: jirwin@tcd.ie

Professor Nóirín Hayes

Phone: 087 2272015

Email: noirin.hayes@gmail.com

Appendix 4: Parent-Friendly Information Sheet



Parent Information Sheet

We are inviting you and your child to take part in an evaluation study. This study is being carried out by researches: Professor Nóirín Hayes and Judy Irwin on behalf of the Childhood Development Initiative, Tallaght West. We want to look at how Speech and Language Therapy services are delivered in Tallaght West.

The information we need will be collected by your Speech and Language Therapist.

Here's what will happen:

- Each child will be given an ID number;
- Your personal information will be kept confidential;
- Each child will be given two separate assessments, within the same year;
- At the end of the study a report will be written and published;
- If you decide that you do not want to be part of the study you can stop at any time;
- We would like to keep your name and contact details on file in the event of a further evaluation study taking place in the future;
- If you would like **further information** you can call a member of the Research Team: Judy Irwin (Research Team) 01 4024172



Appendix 5: Child Profile Excel Spreadsheet

ID	Child Name	Sex	DOB	Are Languages other than English spoken at home?	Language(s) Spoken	Preschool/School Set	Referral Source
1	Sample Smith	Male	12/10/99	Yes	French	In preschool	Parents

Date of Referral	Date of Initial Assessment	Is treatment required following assessment/ diagnosis?	Is Onward Referral Required?	Has this child previously been referred for SLT Services	If NO please state reason for current referral?	What assessment tools were used to measure speech?	Initial Diagnosis
20/09/13	01/11/13	Yes	ENT	No	Language Delay	DEAP	Moderate

Final Diagnosis	What assessment tools were used to measure language?	Initial Diagnosis	Diagnosis Severity	Indicate the type of therapy provided?	Date Therapy Started?	Number of Sessions Offered	Number of Sessions attended
Mild	RAPT	Severe	Moderate	Direct One to One	01/10/13	4-8 Weeks	6

Number of Sessions Parents attended	Date of Final Therapy Session	Date of Final Assessment	Assessment Tools used to Measure Child	Assessment Tools used to measure language	Initial Diagnosis	Final Diagnosis	Assessment Tools used to measure Fluency
6					Severe	Mild	Palin PCI Case History

Initial Diagnosis	Final Diagnosis	Assessment tools used to measure Voice	Initial Diagnosis	Final Diagnosis	Additional Comments
Moderate	Mild	The Vocal Hygiene index	Severe	Moderate	

Appendix 6: SLT Questionnaire (CDI)

Questionnaire for Speech and Language Therapists (CDI)

1. Can you tell me a little about the development and delivery of the CDI Speech and Language Therapy service?
2.
 - a. Could you describe the referral process for the service?
 - b. Who do you primarily and/or predominantly receive your referrals from?
 - c. Has the team successfully accessed its intended target group?
3. What do you think is the main purpose of having such a service delivered in pre-schools and schools?
 - a. (Aims and objectives)
 - b. What were the positive outcomes
 - c. Were there any negative outcomes?
4. What are the relationships between the CDI SLT team and the participating pre-schools and schools like?
 - a. What are the relationships between the SLT therapists and the service users (children and parents) like?
 - b. What are relationships between the SLT team and the referrers like?
 - c. Have you noted any distinct positive changes in service users since the transfer of the SLT service from clinic-based to pre-school and school-based intervention? d. And any negative changes?
5. Are there challenges for the service in the pre-school and school-based delivery?
 - a. What are those challenges?
 - b. What supports can the HSE offer?
6. How do you see the future of the pre-school and school-based delivery?
7. Anything else to add?

Appendix 7: SLT Questionnaire (HSE including Case Study)

Therapist interview schedule and questions

The following questions act only as a guide for the phone interview and we will not cover all for each child:

1. Can you tell me a little about the delivery and process of the clinic based Speech and Language Therapy service?
2. Could you describe the referral process for the HSE SLT service?
3. Where do you primarily and/or predominantly receive your referrals from?
4. What are the relationships between the SLT team and the service users (children and parents/guardians) like?
5. What are relationships between the SLT team and the referrers like?
6. Can you comment on the initial assessment (Time 1) of the child? Detail requested on speech, language, fluency and voice. What tools were used and why?
7. Does the child demonstrate the social skills required to complete the task requested of them?
8. What are the implications if the child is unable to participate in the task?
9. Was therapy required?
10. If so, is the therapist who carried out the Initial Assessment also carrying out the therapy?
11. Can you indicate the type of therapy provided?
12. What date did the therapy start?
13. How many sessions were offered? And how many were attended?
14. For sessions unattended, was a reason given?
15. In your opinion, why do you think that clinic appointments are not kept?
16. How do you think children/families can be supported to keep their appointments?
17. What was parental participation like?
18. Date of Final therapy session?
19. Was a Time 2 Assessment carried out as part of the evaluation with CDI? If so can you comment on the speech, language, voice and fluency outcomes?
20. Date of final assessment?

Thank you for completing our questionnaire

Appendix 8: HSE Guidelines

Priority Pathway – Information for Therapists April 2014

The primary goal of the pathway is to offer an initial intensive therapy block with a shorter waiting time than currently exists on the local caseloads in each area. The pathway provides a diagnostic therapy block for children with complex presentations at initial assessment who meet a Priority 1 rating on the Therapy Outcome Measure (TOMS). A secondary goal is to facilitate children in accessing community based speech and language therapy prior to a language class referral being made in order to confirm a diagnosis of Specific Speech and Language Impairment.

The Priority Pathway provides therapy for children who are:

- Eligible for Community SLT services.
- Waitlisted as priority 1 on the Therapy Outcome Measure (TOMS) at initial assessment e.g. scores of between 1-10.
- Have not received therapy with the DSW SLT service to date.
- Are 5 years 11 months or younger at time of assessment.
- Not presenting with fluency as their primary difficulty.

0.6 WTE is assigned to the Priority Pathway. The pathway is open to clients from the Mary Mercer, Killinarden, Millbrook and Old County Road caseloads.

Referral Procedure:

If a child presents as eligible for the Priority Pathway at initial assessment the assessing SLT will discuss this with parents/carers using the 'Priority Pathway Information for Parents' handout.

Following assessment, files and master list data will be transferred to the Priority Pathway therapist. Clients who have been transferred to the Priority Pathway will be highlighted to Coordinating Therapists in each network on the initial assessment master lists sent to each clinic. The Coordinating Therapist will keep a record of all children from their catchment area who have been transferred to the Priority Pathway. The Priority Pathway therapist will become the child's Primary Therapist while they are on the Priority Pathway caseload.

Children will be offered appointments based on longest waiting time. If waiting times for the priority pathway exceed the waiting times for therapy in the child's local clinic then children will be transferred to the local clinic for therapy.

Children will be offered a 9 week episode of therapy: 8 weekly therapy appointments followed by a consolidation period of approximately 6-8 weeks and a cycle review. TOMS will be completed with parents at cycle review to establish the child's current priority rating. A written summary report will be provided following cycle review.

Following cycle review, clients will be transferred to their local clinic caseload with recommendations regarding further intervention. Handover via telephone conversation or in person with the receiving Coordinating SLT will take place. The child's local Primary Therapist will be identified at this time.

Therapy will be provided in Millbrook Lawns or Mary Mercer Health Centres. If families from the Old County Road or Killinarden caseloads are unable to travel to either of these centres then the child will be transferred back to their local clinic caseload and will wait the typical amount of time for therapy however they will be offered a 9 week therapy episode equivalent to the episode offered on the Priority pathway.

If there are insufficient numbers of P1 clients to fill a particular block of priority pathway then P2 clients will be offered therapy slots with the pathway. The Priority Pathway SLT will inform the coordinator of how many slots are available for each clinic. The Coordinator will then choose and prioritise P2 clients using the 'Priority Pathway P2 Prioritisation Tool'.

Lisa Kelly

Senior Speech and Language Therapist

Appendix 9: McNamara and Chi Square Analysis

McNamara Using SPSS for outcomes on speech and language

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
new_T1Speech	25	69.4%	11	30.6%	36	100.0%
* new_T2Speech						

new_T1Speech * new_T2Speech Cross tabulation

		new_T2Speech				
		WNL	Mild	Moderate	Severe	Total
new_T1Speech	WNL	9	0	0	0	9
	Mild	7	0	0	0	7
	Moderate	1	0	0	1	2
	Severe	0	2	2	3	7
Total		17	2	2	4	25

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
McNemar- Bowker Test	10.333	4	.035
N of Valid Cases	25		

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
new_T1Speech*	26	72.2%	10	27.8%	36	100.0%
new_T2Speech						

new_langT1 * new_langT2 Cross tabulation

		new_T2Speech				
		WNL	Mild	Moderate	Severe	Total
new_T1Speech	WNL	14	0	0	0	14
	Mild	3	1	0	0	4
	Moderate	0	0	2	0	2
	Severe	1	1	0	4	6
Total		18	2	2	4	26

Chi-Square Tests

Chi Square Analysis for English as an Additional Language

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Are languages other than english spoken at home? * What is the diagnosis at Time 1 for language	36	100.0%	0	0.0%	36	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi- Square	24.030 ^a	7	.001
Likelihood Ratio	24.987	7	.001
Linear-by-Linear Association	.141	1	.707
N of Valid Cases	36		

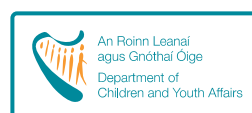
^a. 15 cells (93.8%) have expected count less than 5. The minimum expected count is .25.

Statistics

		What are the number of sessions offered	What were the number of sessions attended?	What were the number of sessions parents attended?
N	Valid	28	28	28
	Missing	8	8	8
	Mean	10.04	8.61	7.64
	Std. Deviation	3.727	3.107	3.413

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