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Baby talk home visits: Development and initial evaluations of a primary prevention service

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Abstract
Language delay is a common developmental difficulty. Research indicates that it is influenced by environmental factors, particularly social deprivation, but that a parent's interaction protects children's language development against these factors. It is hypothesized that by supporting parents' interaction, language development may be facilitated. This study aims to evaluate a preventative intervention for language delay. The Babytalk Home Visiting (BTHV) service was developed and delivered in Portsmouth, UK from 2003 to 2007. Two separate evaluations of the BTHV service were carried out, the first using parent questionnaires and the second using a comparative evaluation of parent ideas and child-language outcomes. In the first evaluation parents indicated that they valued the information given in the BTHV service, and 72.5% stated they would change their communication behaviour according to advice given. In the second evaluation, parents who reported receiving the BTHV service gave a significantly greater number of ideas on how to encourage language development, and reported a significantly higher child word count than parents who had not. The results of these evaluations suggest that this preventative initiative may be beneficial; however, limitations of the evaluation findings are discussed, and it is concluded that controlled comparative research is required to establish the effectiveness of such approaches.

Keywords
health promotion, language development, language delay, public health, socio-economic status

1 Introduction

1 Prevalence of primary language delay:

Primary language delay remains one of the most prevalent developmental delays in early childhood (Hall and Elliman, 1996). The exact prevalence is debated, and Enderby and Pickstone (2005) cite a number of studies that give differing levels. Law et al. (1998) reviewed the literature and found

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prevalence figures ranging from 0.6% to 33.2%. It is also recognized that in some communities this figure is higher. For example, in an area of high social deprivation Locke et al. (2002) found that over 65% of children entered nursery with a mild language delay or worse. Pickstone (2004, cited in Enderby and Pickstone, 2005) found a prevalence in a disadvantaged area of 31%, based on direct testing.

2 Long-term implications for speech and language delay

The long-term outcomes for individuals with primary language delay have also been documented. Rescorla (2005) found that late talking toddlers fare worse at school than normally developing peers, but not as poorly as children with specific language impairment. In her summary of literature on outcomes for children with speech and language difficulties Clegg (2006) cites language difficulties, low socio-economic status (SES) and low IQ as particular risk factors for poor outcomes later in life.

Educational outcomes are not the only factors affected by language delay associated with low SES. Persisting speech and language difficulties can lead to emotional and behavioural difficulties (Qi and Kaiser, 2004; Stringer and Clegg, 2006). Furthermore, there is some evidence to suggest a link between speech and language difficulties and anti-social behaviour, and between language levels and employment prospects (Clegg, 2006). In a study by Bryan et al. (2007) a much higher prevalence of communication and language difficulties was seen in a sample of young offenders than is seen in the general population, indicating that language abilities may be a potential risk factor for antisocial and criminal behaviour.

3 Language development and environmental effects

It is widely accepted that a child's environment influences his or her language development, and this is reflected in the increased prevalence of language delay reported in areas of low SES as stated above. The most significant factor in a child's environment is his/her main caregiver, and the interactions that that caregiver has with the child. Hart and Risley (1995) found that the amount of language that children heard from their caregiver, and subsequently produced, was directly related to their SES. The negative effects of low SES, however, can be minimized by a protective caregiver environment. In a regression analysis Raviv et al. (2004) found that parenting factors (maternal sensitivity and cognitive stimulation) were partial mediators of the relation between SES and language skills. These findings are supported by other studies. For example, Gutman and Feinstein (2007) found that whilst parenting factors are influenced by SES, increased parental facilitation of language acted as a protective factor for language against the effects of SES. Sylva et al. (2004) also reported that parental participation outweighed the effects of social class or parental education. Blanden (2006) concurs that the level of parental interest is important in determining what enables those who are disadvantaged in childhood to succeed later in life, with this being linked to higher early test scores in children.

4 Facilitative factors in the caregiving environment

The studies discussed above illustrate that aspects of the parenting environment can support language development. Specifically, the amount of language spoken to children is shown to be related to their language development (Hart and Risley, 1995; Hoff and Naigles, 2002). The effect of interactional style has also been shown to influence language development, such as following a child's lead in interaction, and commenting on a child's topic of interest (Tomasello and Todd, 1983;

Table 1 Butler's (1989) three levels of prevention

1.	Primary prevention	focus on health promotion, in order to prevent the onset of a disease/ impairment
2.	Secondary prevention	focus on early detection and intervention, to shorten the duration of impairment and therefore limit its effects on an individual
3.	Tertiary prevention	Focus on reducing the impact of longer term impairment on an individual

Hoff-Ginsberg, 1987; Tamis-LeMonda et al., 1996). For example, in an experimental setting Tomasello and Farrar (1986) found that 17-month-old children learned words more easily when an item in their focus of attention was labelled, rather than an item not in their immediate focus. The effects of child-directed speech (CDS) are also debated in the literature. Tomasello (2003) concluded that CDC is not necessary for language acquisition, but it may speed up the process. Matychuk (2005) argues that CDS is the most important factor related to successful language development that an infant encounters.

There are also certain parenting activities that families engage in that are considered to support language development. These may link intrinsically with aspects of interaction in the parenting environment as described above. Ginsborg (2006) discusses the importance of play to a child's cognitive, physical, social and emotional development, highlighting that play offers the opportunity for parents to engage fully with their children. Singing nursery rhymes has been associated with increased language outcomes (Bryant et al., 1989; Roulestone et al., 2002). Whilst the benefits of sharing books are debated in the literature (for a review, see Scarborough and Dobrich, 1994), sharing books with young children has been positively associated with language development, and with later academic achievement at school in a number of studies (Morag et al., 1998; Moore and Wade, 2003; Boyce et al., 2004). Dunning (1994) argued that it is aspects of adult–child interaction that takes place during book sharing that may be significant in promoting language development, a factor that had been overlooked in many studies.

5 Challenges for intervention

There is clearly therefore a need to address the speech and language needs of children in order to reduce the prevalence of persisting language delay, and therefore ameliorate the longer-term effects. Law argued that given the negative consequences of speech, language and communication difficulties on so many factors, the promotion of language development is a 'public health issue requiring a public health response' (Law, 2006: 141). Public health services have indeed been interested in the language development of young children, and universal health services such as health visiting have given advice on supporting language as part of their role for some time.

Speech and language therapy services have also been aware of the need to support language development at an early stage. The effectiveness of early intervention has been highlighted (Gibbard, 1994; Law et al., 2003). However, speech and language therapy advice has historically been available only for children for whom there is a developmental concern. To illustrate using Butler's (1989) three levels of prevention (see Table 1), speech and language therapy has historically intervened at levels 2 and 3, with level 1, that is primary prevention, being provided by the universal services without speech and language therapy support.

Development of primary prevention initiatives within the speech and language therapy service in the UK has taken place within the last decade, largely as a result of external funding from government

sources, such as Sure Start. The nature of these services is diverse, consisting of training courses, work within nurseries, parent and toddler groups, large-scale public relations initiatives and home visits.

This article aims to describe the development, delivery and evaluation of a primary prevention speech and language therapy initiative that has taken place in a local Sure Start programme in Portsmouth, UK: the Babytalk Home Visiting (BTHV) service.

The BTHV service was developed in 2003 by the authors as part of the speech and language project for Sure Start Somerstown, a Sure Start programme in Portsmouth City, UK. Sure Start is a UK government funded multi-agency programme aiming to support parents and young children in order to reduce the negative effects of child poverty and social exclusion (Department for Children, Schools and Families, 2010).

It was hypothesized that by giving parents information about language development and how this can be facilitated at home through a preventative advice giving service, parents would increase their knowledge and skills in this area and would adapt their parenting environment to facilitate language development in their child. It was also hypothesized that this would lead to increased language levels in their child.

II Method

1 Procedure and service delivery:

The BTHV service was developed following initial consultation with local health and social care professionals with the following aims:

1. to increase caregivers' awareness of language development, in particular developmental milestones;
2. to illustrate to primary caregivers the reasons why it is important to encourage language development in children;
3. to illustrate ways in which language development can be facilitated through interaction and parenting activities;
4. to support families in accessing the speech and language therapy service when appropriate.

2 Staff development

The service was delivered by the speech and language therapist (SLT) and a speech and language therapy assistant (SLTA) employed for the Sure Start Programme. The SLTA followed a development programme in line with a knowledge and skills profile, which outlined the following areas:

1. communication development from 0–2 years of age, covering play, attention and listening, non-verbal development, comprehension, expressive language and speech;
2. the effect of the environment and SES on language development;
3. aspects of interaction and activities highlighted in the literature as supporting language development;
4. the SLTA's own communication skills, and engaging with parents;
5. administrative procedures and awareness of relevant policies, including lone working, confidentiality and safeguarding children.

A copy of the knowledge and skills profile is included as Appendix 1. Knowledge and skills in these areas were gained through attendance at courses, reading, workshops with the SLT and shadowing

other Sure Start programmes. The SLTA shadowed the SLT delivering the initial BTHV services. Her competence was then assessed using role-play sessions with the SLT and through a BTHV service delivered by the SLTA and shadowed by the SLT. At this stage, the SLTA was signed off as competent and began delivering the majority of the BTHV services. Over 90% of the BTHV service were delivered by the SLTA (the remainder by the SLT).

3 Participants

The service was marketed to all parents in the area through baby clinics and other parent groups, and referrals were received from Health Visitors. From 2004, the SLTA also attempted to contact all families on Health Visitor's birth lists of children aged 6 months registered with the Sure Start programme who had not already been referred or requested a BTHV service. Whilst the aim of the service was to offer the visit to all families in the area with a baby, due to the high levels of transfer in and out of the area (25% mobility), this was not possible. It was also only possible to contact families registered with Sure Start Somerstown (due to data protection and information-sharing guidelines). However, as registration levels in Somerstown were high (over 80%), this meant that a large number of families were contacted.

4 The nature of the visit

The SLTA contacted families when the child was 6 months of age, and offered a home visit at a mutually convenient time. She then visited the family and spent around 60 minutes with the primary caregiver. The baby did not have to be present, but if he/she was, the SLTA would model activities with the baby. Advice was given to the parent on the following areas:

- normal language development from birth to two years, covering eye contact, non-verbal communication, turn–taking, cooing and babbling, comprehension of language and expressive language;
- benefits of caregivers encouraging language development, including increased vocabulary, increased attention and listening skills, narrative development and educational and social benefits;
- information on facilitative interaction, including following the child's lead, copying babbling, special time, talking through everyday routines and child-directed speech;
- parenting activities that encourage language development, including sharing books, singing nursery rhymes, with examples of age-appropriate toys and books.

Families were given a CD of nursery rhymes, books and information leaflets to support the advice given in the BTHV service. They were also given information about local parent and baby groups. Finally, parents were advised how to contact the speech and language therapy department if they were concerned about their child. A record of the visit was completed for file in the health visitor's case notes.

5 Monitoring and evaluation of the service

Monitoring of the number of BTHV services offered took place via the Sure Start monitoring database. The effectiveness of the BTHV service was evaluated in two ways:

a Method 1: Parental feedback questionnaires: Parents who received a BTHV service were given a questionnaire to complete (verbally or in writing) at the end of the visit. Translators or bilingual co-workers were involved when needed. Questions included whether the parent felt they knew more about language development and how to facilitate it, and whether they might do anything differently as a result of the visit. The questionnaire included an open section where parents were invited to record what they might do differently. The questions asked are provided in Appendix 2. Frequencies of response types were calculated for the yes/no questions. Responses to the open questions were grouped into themes (e.g. responses about talking to their child, looking at books, singing nursery rhymes), and percentages of overall responses calculated. Parents were also given an opportunity to give additional comments about the service.

b Method 2: Language measures and additional questions: The Revised Sure Start Language Measure (SSLM-R; Sure Start Unit, 2003) is a parental report of language that is carried out when a child is aged 22–27 months. The SSLM-R was developed for evaluation of Sure Start Programmes in the UK, and is derived from the Parental Evaluation of Developmental Status (PEDS;Glascoe, 1997) and the MacArthur parental inventory (Fenson et al., 2000). It contains questions about parental concern about general and language development as well as a list of 50 sample words. Parents report whether their child is able to say each of the 50 words. Additional information was also collected, such as educational level of parent and age of child in months. Collection of data on children's language levels using the SSLM-R was required by all Sure Start programmes up to and including 2007 for regional and national evaluation of Sure Start targets.

During one financial quarter each year between 2004 and 2008 families living within the Sure Start area with a child aged between 22 and 27 months were contacted for the purpose of carrying out the SSLM-R. Families were selected from a database of families registered with the programme with children at the appropriate age. A minimum of 60 completed SSLM-Rs was required per year for the Central Sure Start Evaluation purposes (Sure Start Unit, 2003). In order to achieve this figure, all the children on the Sure Start Somerstown database aged between 22 and 27 months during that financial quarter were contacted. As the primary requirements for collection of data using the SSLM-R were not to evaluate the BTHV service, families were not selected on the basis of receipt of a BTHV service, and the persons administrating the SSLM-R did not know whether the families had received a visit or not prior to asking the parents.

In order to gain a more objective measure of the effect of specific initiatives developed by the speech and language project, however, including the BTHV service, additional questions were added to the SSLM-R in Portsmouth. These included questions such as 'Have you had a Babytalk visit?' The additional questions also included an open question 'What do you think parents/carers can do to help their child learn to talk?' A copy of the additional questions is provided in Appendix 3.

Responses to the question 'What do you think parents/carers can do to help their child learn to talk?' were assigned one mark for every different idea a parent gave that was in accordance with consensus from the speech and language therapy service (i.e. a parent would get one mark for 'talk to your baby', but not for 'correct their speech'). Consensus was achieved through discussion between therapists within Portsmouth City, and with reference to the literature on facilitating language development. Table 2 outlines ideas that were considered by consensus to be beneficial or not beneficial for language development. A total score for number of different parent ideas was then given for each questionnaire.

In Portsmouth, all reports were gained verbally, with over 95% being obtained by face-to-face interview with the parent. Face-to-face interviews are reported to contribute to increased reliability

Table 2 Outline of consensus for beneficial / non-beneficial parental ideas for facilitating language development

Beneficial comments	Non-beneficial comments
Talk to baby	Buy more toys
Look at books	Non-specific comments about play
Sing nursery rhymes	Correct speech
Special time	Watch TV
Follow lead	
Go to groups	

of the report (Roy et al., 2005). These interviews were carried out by a range of professionals who worked for projects commissioned by Sure Start Somerstown (seven separate projects with up to 10 staff). Inter-rater reliability tests were not carried out, but all staff involved followed the administration guidance stated in the SSLM-R guidance manual (Sure Start Unit, 2003). Furthermore, staff were advised when asking the additional questions not to prompt parents or suggest ideas in response to the open question.

6 Data analysis for evaluation method 2

Data from the SSLM-R and additional questions was entered, verified, and analysed using SPSS (version 14). Analysis of covariance (ANCOVA) was selected to assess the effect of receiving a BTHV service on the reported word count in the SSLM, and the number of appropriate parent-generated ideas about language facilitation. This statistical test was selected because it enabled comparison of 2 groups (i.e. participants who had reported receiving a BTHV service with participants who had not), whilst partialling out the effects of covariates reported in the literature as influencing language development. A regression analysis was not selected due to the uneven group sizes, but ANCOVA was possible as the data in each group were normally distributed. To assess reported word count, the ANCOVA partialled out the effects of age of child, gender of child and education level of the main carer. Roy et al. (2005) found that gender and age in months had a significant effect on word count on the SSLM-R. Furthermore, education level of the main carer is a widely reported influencing indicator of SES, which is also reported to affect language development (Hart and Risley, 1995).

To assess the number of appropriate ideas on language facilitation, the ANCOVA partialled out the effects of gender of child, education level of main carer, and position of child in family. The position of the child in the family was included as it was postulated that previous experience of parenting may contribute to increased knowledge of child development. The gender of the child was also included as a covariate as it has a significant effect on the child's own language development (Roy et al., 2005), and therefore may affect the reciprocal interaction from the parent.

III Results

1 Monitoring

Between January 2003 and December 2007 350 visits were delivered in the Sure Start Somerstown area. This results in an average of 70.2 visits per year. A breakdown of number of visits given per year is as follows:

- 2003 = 40
- 2004 = 65
- 2005 = 82
- 2006 = 83
- 2007 = 80

2 Evaluation method 1: Parental questionnaire

Of the 351 visits that were carried out, 349 questionnaires were completed by parents. When asked if they felt that they knew more about Language Development, 94.6% respondents answered that they did. 72.5% respondents stated 'yes' to the question 'Will you do anything differently as a result of this visit?', and 62.2% stated on the evaluation form what they would do; responses included talking more to their baby, spending a special time with their baby each day, singing nursery rhymes and reading books (see Figure 1). When asked if they knew how to get help if needed, 96.8% of respondents stated that they did.

When asked how satisfied parents were with the BTHV service, 91.1% rated their satisfaction at 5 out of 5, where 5 is most satisfied. Comments given by parents included: 'I feel more confident about what I'm doing and have lots of ideas about new things to do' and 'Very helpful and I've learned a lot about baby language.'

3 Evaluation method 2: SSLM-R with additional questions

Between 2003 and 2008 135 SSLM-R reports with additional questions were collected for children living in the Sure Start area aged 22– 27 months. Of these, 46 parents reported that they had received a BTHV service when their child was younger, and 87 parents reported that they had not.

a Effect of reported BTHV service on parent ideas to encourage language: One hundred and thirty-two SSLM-R papers with additional questions were valid for analysis (three were not valid due to missing data). Parents who reported that they had received a BTHV service gave significantly more ideas to encourage language (mean = 3.15, SD 1.738) than those who reported that they did not (mean = 2.03, SD 1.536), when controlling for education level, gender of child, and position of child in the family ($F(1,127) = 8.00$, $p = 0.005$). Additionally, parents with a higher level of education had significantly more ideas than less educated parents ($F(1,127) = 8.192$, $p = 0.005$). There was no evidence to suggest that gender of child ($F(1,127) = 0.897$, $p = 0.345$) or position of child in the family ($F(1,127) = 1.820$, $p = 0.18$) had an effect on the amount of parent ideas given. The means of number of ideas with standard deviations for each group are shown in Table 3.

b Effect of BTHV service on child's reported word count: A total of 133 questionnaires were analysed (with 46 stating that they had had a BTHV service, and 87 stating that they had not). Two questionnaires were not valid due to missing data. Children of parents who reported receiving a BTHV service had a significantly higher reported word count (mean = 30.70, SD 13.625) than children of parents who reported that they had not (mean = 25.38, SD = 11.755), when controlling for gender, age and parental level of education ($F(1,128) = 4.859$, $p = 0.029$). All covariates were also found to be significant: girls had a significantly higher word count than boys ($F(1,128) = 17.169$, $p = .000$); older children had a higher word count than younger children ($F(1,128) = 13.795$, $p = .000$), and children of parents with a higher level of education had a higher word count ($F(1,128) = 4.132$, $p = 0.044$). The means of reported child word count with standard deviations for each group are shown in Table 4.

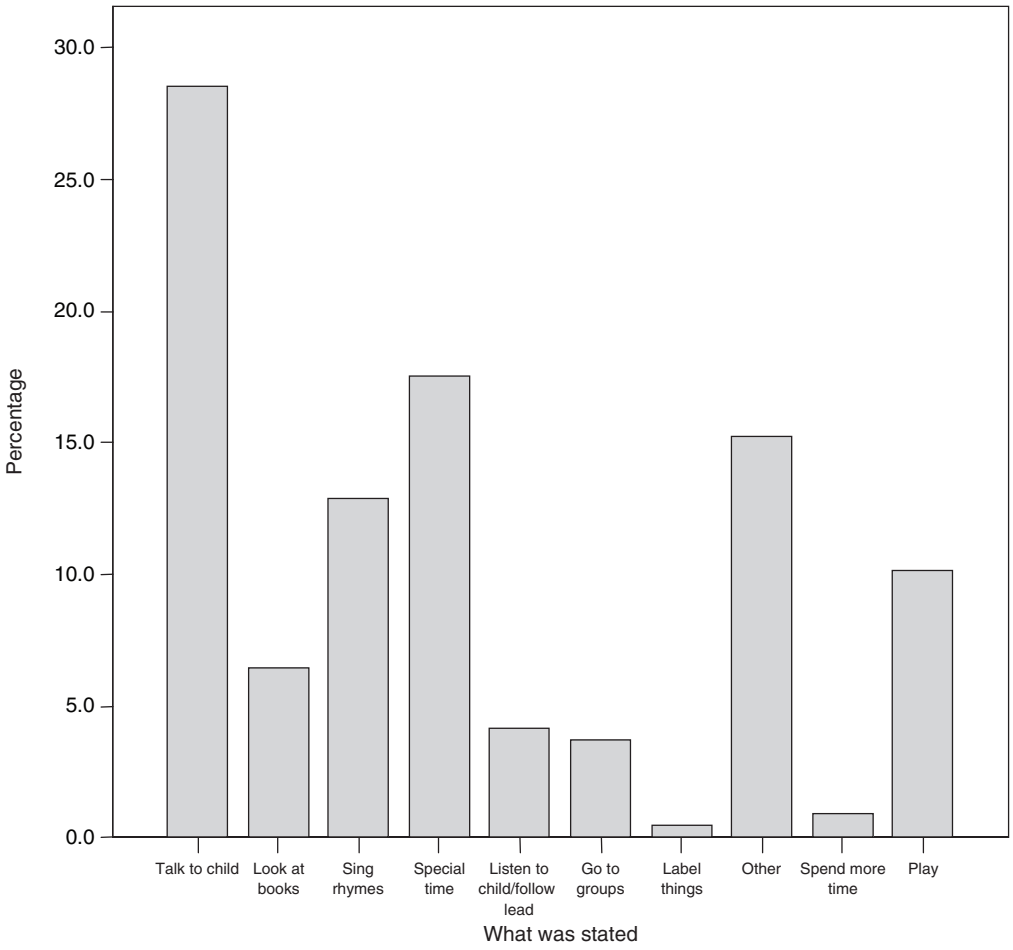

Figure 1 Types of responses given to the question: 'What, if anything, will you do differently as a result of this visit?'

Table 3 Mean parental ideas with standard deviations

	Mean number of ideas to support language development	Standard Deviation
Reported receipt of BTHV	3.15	1.738
Reported no receipt of BTHV	2.03	1.536

IV Discussion

There is a case in the literature for facilitating language development through supporting the home environment. The BTHV service was developed with this aim in mind by giving parents or carers information about their child's language development, and how they can support this in their daily lives. The BTHV service was also developed in response to a need to address the increased prevalence of language

Table 4 Mean reported word count with standard deviations

	Mean reported child word count at 22–27 months	Standard Deviation
Reported receipt of BTHV	30.70	13.625
Reported no receipt of BTHV	25.38	11.755

delay found in areas of social deprivation. Based on findings such as those of Hart and Risley (1995), it was postulated that the increased prevalence of language delay in areas of low SES was based in part on factors in the home environment. The service therefore targeted the home environment for support.

The results of both evaluation methods indicate subjective and objective benefits of the BTHV service and support the hypotheses. The results of the comparative evaluation (method 2) support the perceptions given by parents in method 1. This was, however, a service evaluation, and not subjected to the controls of a research study. A number of methodological limitations should be considered and are discussed below.

1 Evaluation method 1: Parental feedback questionnaire

This is a report of parents' own perception of the benefit of the BTHV service. Whilst many parents report that they felt that they had learned more about language development and how to facilitate this in their child, the evaluation does not give an objective measure of increase in knowledge and skills, as no baseline and post-intervention measures were taken. Furthermore, whilst many parents reported that they would change their behaviour in some way as a result of the BTHV service, and the changes suggested by parents were behaviours that are supported in the literature as being beneficial for language development, the evaluation does not indicate whether parents actually did implement this change in behaviour.

The questionnaire was given to the parent at the end of the BTHV service by the SLTA. This resulted in a high level of returns (over 99%). Parents indicated that they valued the service, and high levels of satisfaction were reported. It is possible, however, that parents felt compelled to write positive comments as the SLTA was present at the time. Whilst the positive additional comments received on the form suggest that the service is valued by parents, the use of third-party evaluators in the future may validate parental responses further.

Parents gave a number of responses to the open question 'What will you do differently as a result of this visit' as illustrated above. Responses were grouped into themes, and these are given in Figure 1. This open question method was selected (over a tick list) to ensure that the response was a genuine response, and not simply a response to prompts. The allocation to the themes was carried out by one SLT. Inter-rater reliability tests were not carried out. A test of reliability of the rating method would enable the method to be replicated, and future evaluations might include intra- and inter-rater reliability tests to validate the ratings of the responses.

2 Evaluation method 2: Comparative analysis using SSLM with additional questions

The results of the comparative analysis indicate a positive effect of report of receiving a BTHV service on parental ideas for language development and on reported child word count. As with method 1, however, there were methodological limitations, which are discussed below.

a Parental report: An adequate language measure?: The SSLM-R is a parental based report of their child's expressive language. Past studies have documented high correlations between parent report and children's language development (Dale, 1991; Sure Start Unit, 2003). Future research might, however, examine the effect of the BTHV service on other measures of language, for example, standardized assessment or on direct observation of language development as used by Hart and Risley (1995).

b Control in the evaluation method: The two groups compared (i.e. families who had reported receiving a BTHV service and families who had not) were not controlled groups. There is, therefore, potential for additional variables to have influenced the results. Known factors, such as parental level of education were partialled out in the analysis. Other factors, however, such as a greater willingness to access services, or prior knowledge of language development, may also have influenced the outcomes. Furthermore, the evaluation relied on the parents' report of whether they received a BTHV service or not. It is possible that some of the parents who had reported not receiving a visit may have actually forgotten receiving one. This may have biased the results, as a parent who did not remember receiving the visit may also not remember the advice given. Another factor that may introduce bias into the results is blinding to conditions. The staff involved in carrying out and analysing this evaluation were not blind to which parents reported receiving a BTHV service. Due to the order of questioning, when carrying out the SSLM-Rs staff were not aware of whether a parent had received a BTHV service when asking about word count, but would have been told about receipt of BTHV service by the time they asked about parental ideas to support language. There is, therefore the risk of evaluator bias in these results, particularly concerning the parent ideas. Whilst this evaluation indicated a positive effect of receipt of the BTHV service for both child word count and parent ideas, a comparative research study with controlled groups, baseline measures and blinding to conditions is required before the effect of the BTHV service can be fully established.

A comparison was not made between the BTHV services carried out by the SLT and those carried out by the SLTA. As over 90% of visits were made by the SLTA, the results support service delivery by a team involving SLTs and assistants. Future research, however, could investigate the relative impact of services delivered by SLTs as compared to delivery by SLTAs.

V Conclusions

Primary prevention of language delay is a relatively new clinical area. Due to the emergence of new funding streams in the UK, such as Sure Start, this area is rapidly developing. There is little reported in the literature on the development, delivery and evaluation of primary prevention services that target the home environment. This is a report of such a service. The evaluations indicate benefits of the service, but are limited methodologically, and the results must be interpreted in the light of these limitations.

This report, however, provides a contribution to the literature for preventative services. It is hoped that more research on primary prevention takes place. If found to be effective, primary prevention would provide a valuable tool for tackling the inequalities in language abilities according to socio-economic status.

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References

Blanden J (2006) 'Bucking the trend': What enables those who are disadvantaged in childhood to succeed later in life? Leeds, Department for Work and Pensions. Working paper No. 31.

Boyce L, Cook G, Roggman L, Innocenti M, Jump V, and Akers J (2004) Sharing books and learning language: What do Latina mothers and their young children do? *Early Education and Development* 15: 371–85.

Bryan K, Freer J, and Furlong C (2007) Language and communication difficulties in juvenile offenders. *International Journal of Language and Communication Disorders* 42: 505–20.

Bryant PE, Bradley L, Maclean M, and Crossland J (1989) Nursery rhymes, phonological skills and reading. *Journal of Child Language* 16: 407–28.

Butler J (1989) *Child health surveillance in primary care: A critical review*. London: HMSO.

Clegg J (2006) Childhood speech and language difficulties and later life chances. In: Clegg J and Ginsborg J (eds) *Language and social disadvantage: Theory into practice*. Chichester: John Wiley, 59–73.

Dale P (1991) The validity of a parent report measure of vocabulary and syntax at 24 months. *Journal of Speech and Hearing Research* 34: 565–71.

Department for Children, Schools and Families (DCSF) (2010) About Sure Start Children's Centres. Retrieved from: http://www.dcsf.gov.uk/everychildmatters/earlyyears/surestart/aboutsurestart (December 2010).

Dunning DB (1994) Reading to preschoolers: A response to Scarborough and Dobrich (1994) and recommended future research. *Developmental Review* 14: 324–39.

Enderby P and Pickstone C (2005) How many people have communication disorders and why does it matter? *Advances in Speech–Language Pathology* 7: 8–13.

Fenson L, Pethick S, Renda C, Cox JL, Dale PS, and Reznick JS (2000) Short form versions of the MacArthur Communicative Development Inventories. *Applied Psycholinguistics* 21: 95–115.

Gibbard D (1994) Parental-based intervention with preschool language delayed children. *European Journal of Disorders of Communication* 29: 131–50.

Ginsborg J (2006) The effects of socio-economic status on children's language acquisition and use. In: Clegg J and Ginsborg J (eds) *Language and social disadvantage: Theory into practice*. Chichester: John Wiley, 9–27.

Glascoe F (1997) *PEDS Parental Evaluation of Developmental Status*. Nashville, TN: Ellsworth and Vandermeer Press.

Gutman L and Feinstein L (2007) *Parenting behaviours and children's development from infancy to early childhood: Changes, continuities and contributions*. London: Centre for Research on the Wider Benefits of Learning.

Hall DMB and Elliman D (eds) (1996) *Health for all children: Report of the 3rd Joint Working Party on Child Health Surveillance*. 3rd edition. Oxford, Oxford University Press.

Hart B and Risley TR (1995) *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Paul Brookes.

Hoff E and Naigles L (2002) How children use input to acquire a lexicon. *Child Development* 73: 418–33.

Hoff-Ginsberg E (1987) Topic relations in mother-child conversation. *First Language* 7: 145–56.

Law J (2006) Interventions to promote language development in socially disadvantaged children. In: Clegg J and Ginsborg J (eds) *Language and social disadvantage: Theory into practice*. Chichester: John Wiley 141–45.

Law J, Garrett Z, and Nye C (2003) Speech and language therapy interventions for children with primary speech and language delay or disorder. *Cochrane Database of Systematic Reviews* 3. Article number: CD004110. DOI: 10.1002/14651858.CD004110.

Law J, Boyle J, Harris F, Harkness A, and Nye C (1998) *Screening for speech and language delay: A systematic review of the literature*. Health Technology Assessment 2. London: National Institute for Health Research.

Locke A, Ginsborg J, and Peers I (2002) Development and disadvantage: Implications for the early years and beyond. *International Journal of Language and Communication Disorders* 37: 3–15.

Matychuk P (2005) The role of child-directed speech in language acquisition: A case study. *Language Sciences* 27: 301–79.

Moore M and Wade B (2003) Bookstart: A qualitative evaluation. *Educational Review* 55: 3–13.

Morag S, Dixon M, Masterson J, and Quinlan P (1998) Learning to read at home and at school. *British Journal of Educational Psychology* 68: 3–14.

Qi CH and Kaiser AP (2004) Problem behaviour of low income children with language delays: An observation study. *Journal of Speech, Language and Hearing Research* 42: 561–78.

Raviv T, Kessenich M, and Morrison F (2004) A mediational model of the association between socioeconomic status and three-year-old language abilities: The role of parenting factors. *Early Childhood Research Quarterly* 19: 528–47.

Rescorla L (2005) Age 13 language and reading outcomes in late-talking toddlers. *Journal of Speech, Language and Hearing Research* 48: 459–72.

Roulestone S, Loader S, Northstone K, and Beveridge M (2002) The speech and language of children aged 25 months: Descriptive data from the Avon longitudinal study of parents and children. *Early Child Development and Care* 172: 259–68.

Roy P, Kersley H, and Law J (2005) The Sure Start Language Measure Standardisation Study. Retrieved from: http://www.dcsf.gov.uk/rsgateway/DB/RRP/u014628 (December 2010).

Scarborough H and Dobrich W (1994) On the efficacy of reading to preschoolers. *Developmental Review* 14: 245–302.

Stringer H and Clegg J (2006) Language, behaviour and social disadvantage. In: Clegg J and Ginsborg J (eds) *Language and social disadvantage; Theory into practice*. Chichester: John Wiley, 93–105.

Sure Start Unit (2003) *The Revised Sure Start Language Measure (SSLM-R): Monitoring language development of two year olds*. Data Information Pack, version 3, 2003–2004. London: Sure Start Unit.

Sylva K, Melhuish E, Sammons P, Siraj-Blatchford I, and Taggart B (2004) *Effective Provision of Pre-school Education (EPPE) project*. Final report. London: DfES.

Tamis-LeMonda C, Bornstein M, Baumwell L, and Damast A (1996) Responsive parenting in the second year: Specific influences on children's language and play. *Early Development and Parenting* 5: 173–83.

Tomasello M (2003) *Constructing a language: A usage-based theory of language acquisition*. Cambridge, MA: Harvard University Press.

Tomasello M and Farrar M (1986) Joint attention and early language. *Child Development* 57: 1454–63.

Tomasello M and Todd J (1983) Joint attention and lexical acquisition style. *First Language* 4: 197–212.

Appendix 1 Knowledge and skills profile for sure start speech and language assistant

Language Development	
1. To understand the pattern of normal language acquisition 2. To understand the importance and role of non verbal communication 3. To be aware of issues surrounding language development and deprivation 4. To be aware of language development in bilingual families 5. To understand the concept of information carrying words 6. To understand a range of approaches for working with language: – EIP – Hanen – Babytalk/Wilstaar – Use of Makaton – Baby signing	Portfolio, Observation reports, Role play Shadowed visits
Sure Start	
7. To understand the aims of Sure Start 8. To be aware of the products and services offered by Sure Start Somerstown	Portfolio
Communication skills	
1. To show an ability to communicate with parents in a way that: – is non judgmental – is informative – uses simple language – is non prescriptive – lacks jargon – is not patronising – shows an awareness of differences in background and culture – is flexible to the needs of different situation – respects confidentiality	Observation Role play Shadowed visits
Administration	
1. To understand and develop the administrative system for obtaining Babytalk referrals in designated area. 2. To show knowledge of guidance as set out in Babytalk protocol 3. To show awareness of communication with Health Visitors regarding all babytalk visits 4. To understand the trusts policies on lone-working, confidentiality and consent 5. To be able to maintain a clear filing system for all Babytalk documentation 6. To undertake training in Safeguarding Children	Discussion with SLT Reading Training course

Appendix 2 Parental feedback questionnaire for evaluation method 1

Tell us what you think of the baby talk visit

Was the visit at a convenient time for you?

yes no not sure

Did you find the information useful?

yes no not sure

Do you feel you know more about how babies learn to talk?

yes no not sure

Do you feel you know more about how to help your baby learn to talk?

yes no not sure

Do you think you will do anything differently with your baby because of this visit?

yes no not sure

If yes, please write what you would do below

……

Do you know how to get help if you are worried about your child's talking?

yes no not sure

Overall, how satisfied are you with the service provided by this project?

How did you find out about the baby visit?

……

Please write any comments below:

……

Appendix 3 Additional questions for evaluation method 2

Before this visit, had you received any of the following products/services?

1. Babytalk visit YES/NO
2. Come and sing YES/NO
3. Nursery rhyme CD YES/NO
4. Talking with your baby/toddler information leaflets YES/NO

What do you think parents/carers can do to help their child learn to talk?
(do not prompt the parent, if a parent says don't know, that's okay)

……

……

Name of staff member carrying out SSLM ……..