

Developmental Verbal Dyspraxia Service: meeting the needs of children and young people more effectively

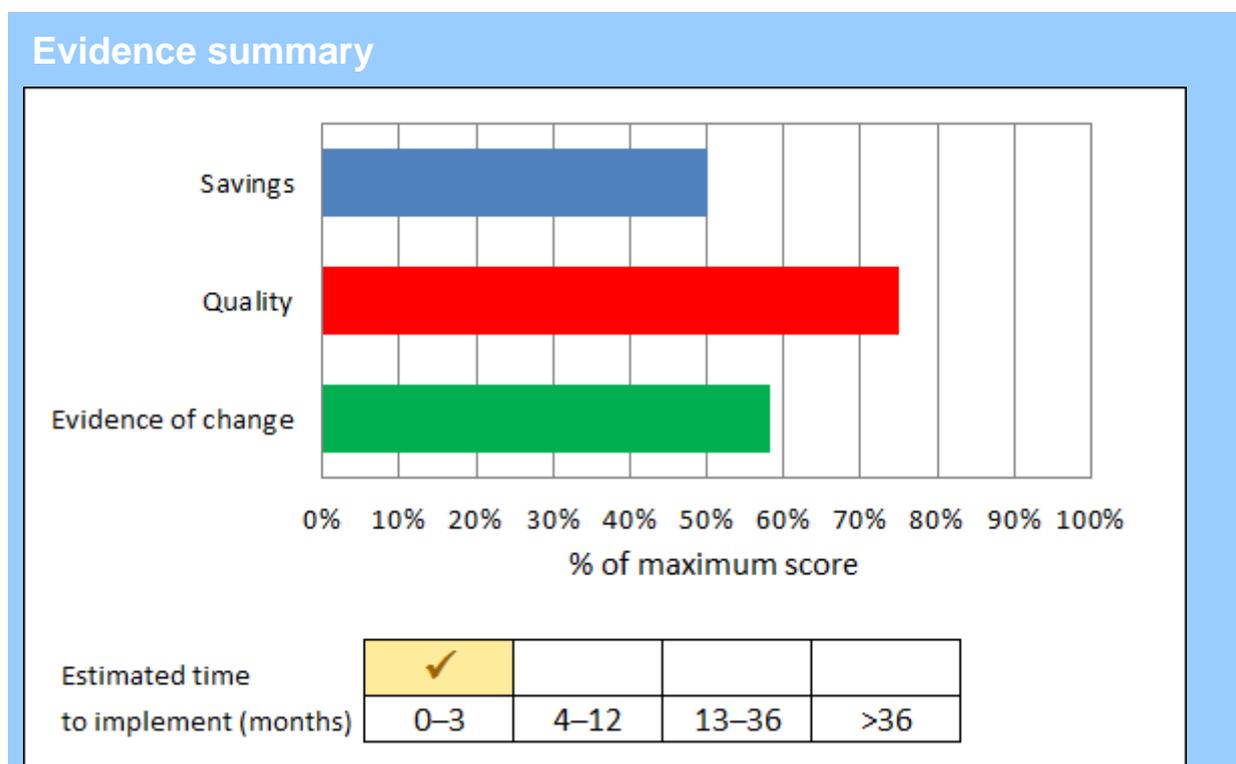
Provided by: Eastern and Coastal Kent Community Services

Publication type: Quality and productivity example

Sharing good practice: What are 'Proven Quality and Productivity' case studies?

The NICE Quality and Productivity collection provides users with practical case studies that address the quality and productivity challenge in health and social care. All examples submitted are evaluated by NICE. This evaluation is based on the degree to which the initiative meets the Quality and Productivity criteria: savings, quality, evidence and implementability. The assessment of the degree to which this particular case study meets the criteria is represented in the summary graphic below.

Proven Quality and Productivity examples are case studies that show evidence of implementation and can demonstrate efficiency savings and improvements in quality.



Details of initiative

Purpose

To more effectively meet the needs of Children and Young People with developmental verbal dyspraxia (DVD). DVD is a rare speech disorder and management of cases is not currently standardised across the UK. Cases are significantly different in terms of their presenting characteristics.

The aims of this initiative are:

- To enable Children and Young People to express themselves as clearly as possible by improving their speech performance and clarity by providing an intensive therapy based on research and clinical experience. Improved speech clarity would enable and/or facilitate their access to the Early Years Foundation Stage and National Curriculum, reduce frustration and promote wellbeing.
- To offer an effective approach to Children and Young People with DVD both clinically and financially. An in-service evaluation report (Developmental Verbal Dyspraxia Specialist Service: Evaluation Report, December 2010) supported the view that the DVD service provides greater clinical effectiveness by resolving difficulties sooner and results in financial savings when comparing it to the department's previous service model.
- To reduce barriers to access by taking the service to the users (i.e. home, school, nursery) and offering flexibility. The neighbourhood encompasses rural and urban areas, making it difficult at times for the service users to access community clinics.
- To increase the level of satisfaction with the service delivered to service users, carers, schools and nurseries.
- To assist parents and schools in supporting the needs of their children in a collaborative way.

Description (including scope)

The Team Managers of the Paediatric Speech and Language Therapy Service within Eastern and Coastal Kent Community Services (ECKCS) have now merged into Kent Community Health NHS Trust. It found through caseload audit and service users' feedback that the needs of the children with DVD were not met through the 'usual' clinic-based service model offering 30 minute sessions, once a week for six weeks. If further therapy was required the Children and Young People were added to the waiting list.

A new service, the DVD specialist service, commenced in January 2009 and specifically works with Children and Young People who meet the inclusion criteria with a suspected or clear diagnosis of DVD. The service, working in healthcare, community and home settings, offers an intensive therapy package to each child that meets the service criteria. This takes the form of

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ongoing twice weekly, 20-30 minute therapy taking place for Children and Young People at school, nursery and/or home, delivered by a Band 7, Highly Specialist Speech and Language Therapist (SLT) and carried over on a daily basis by school/nursery staff and parents.

Both parents and school/nursery staff are required to attend at least one therapy session per week delivered by the SLT in order to develop their knowledge and confidence in supporting the Children and Young People's needs.

Regular reviews of treatment targets monitor progress and therapy is tailored to the individual's needs.

This example describes how to improve productivity and quality – it is not about cash releasing savings.

Topic	Right care, children, planned care and primary care.
Other information	The rationale for the initiative included: <ul style="list-style-type: none">• Evidence-based research suggested that children with DVD require ongoing, intensive input (American Speech-Language-Hearing Association [ASHA] 2007; Strand et al, 2000, 2006).• Verbal reports and previous service evaluation questionnaires show dissatisfaction from families regarding the progress of their children being treated for DVD.• Concerns raised by mainstream schools and nurseries regarding understanding the speech of Children and Young People with DVD as well as the disorder itself.

Savings delivered

Amount of savings delivered	The savings identified have limited detail, and are calculated over a number of years and focus on one case. However, publications have supported that Speech and Language therapy intervention results in savings to the nation. These include 'The cost to the Nation of Children's Poor Communication' (ICAN, 2006) and 'The economic case for speech and language therapy' (RCSLT, 2010) which indicated that with every £1 invested in a child with a speech and language impairment there is a generated return of £6.43 in enhanced lifetime earnings.
Type of saving	The savings are non cash releasing. The submission highlights a more productive service in terms of quality, effectiveness and prompt access to ongoing therapy, for the Children and Young People who meet the criteria for the DVD service.
Any costs required to achieve the savings	This submission delivered a change in service by redeployment of existing resources i.e. a vacant Band 7 post.

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Programme budget

Other.

Supporting evidence

Population size:

Eight cases initially - now 15.

DVD is an extremely rare condition (Shriberg et al, 1997; Law et al, 2000). Studies based on children's referrals estimate its prevalence between 0.2 per cent (Law et al, 2000) and 3.4-4.3 per cent (Delaney and Kent, 2004).

In order to provide some information regarding the children's population in the area of ECKCS, the following is summarised:

- 2006 data: total number of children aged 0-18 yrs in ECKCS=61,500. Seven per cent of these are predicted to have a long term disability, including Speech, Language and Communication Needs (SLCN).
- In December 2008, the number of children known to the Clinic Speech and Language Therapy Team in ECKCS was 635 (children with SLCN).

When the DVD service was first set up in January 2009, 14 cases, already open to the SLT service, were identified as having a diagnosis of or suspected DVD. Eight of these met the inclusion criteria for the DVD service (see Appendix A). The remaining six cases were directed back to the clinic service as they did not meet the criteria. In addition to the initial eight cases, new cases were added over time bringing the total to 15 cases (July 2010).

It is a very small population that benefits from this initiative but the impact based on clinical outcomes, clinical experience and service users' views is very positive (see 'Quality Outcomes').

Type of savings:

The initiative reduced waiting times for assessment and treatment in Community Speech and Language Therapy Clinics to meet the standards set by the Department of Health (DH) and to meet Children and Young People's needs who require a less intensive input. It also allowed Children and Young People identified with DVD at the specialist assessment to access intensive therapy promptly.

Cost of change:

At the time of implementation, redeployment of existing resources allowed a full time Band 7, Highly Specialist SLT post to be created.

A cost-effective approach:

Children with DVD were receiving the 'usual' therapy service model in clinic once a week for six weeks and were then added to the waiting list for further therapy.

- Example of ineffective service ('traditional' clinic therapy):
Cases: 8
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Total clinic contacts: 457(from referral to SLT Service to date of inclusion on DVD caseload).

Total Cost: £58,039

Closures: 0

Requiring further therapy: 8

- Example of effective service (DVD Service - twice weekly therapy):

Cases: 8

DVD service contacts: 333 (over 16 months – including 2 review periods prior to a closure of a case)

Total Cost: £42,291

Closures: 6

Requiring further therapy: 2

The costs are calculated according to the Service Reference Cost for the Year 2008-2009 which comes to approximately £127 per contact.

Additional information:

Long term cash savings can be achieved if speech, language and communication needs are targeted early and effectively (RCSLT, 2010)

Case study:

Comparison of cases with DVD is difficult as each case involved in the DVD service is very different in terms of speech disorder characteristics; rate of progress and most importantly family and school/nursery support makes direct comparison challenging. However, there are two cases that can be used as a way to showcase cost effectiveness. Both cases had very similar characteristics at their speech and language development, very supportive families but received a very different package of intervention at different ages.

Child A was referred to the speech and language therapy service at two years and six months. He presented with DVD and expressive language difficulties. Child A accessed the clinic-based service model until he was nine years of age - by that time he had received 124 direct therapy contacts. At the age of nine, he was transferred to the newly-established DVD service. There, he received a further 60 direct contacts.

Up to that point the total cost calculated was approximately £23,000.

On the other hand, Child B was referred at two years and ten months and she also presented with DVD and expressive language difficulties - very similar characteristics to Child A. Child B received 29 direct contacts in clinic and she was transferred to the new DVD Service when she was five years old. She received a further 42 direct contacts and now, a year on, her case is now closed.

Total cost calculated was approximately £9,000.

Based on this example, the savings made are approximately £14,000.

Quality outcomes delivered

Impact on quality of care or population health

An improvement in clinical quality is expected. The traditional speech and language service at the trust did not meet the needs of Children and Young People with DVD. The DVD service was established in January 2009. The rare prevalence of DVD makes it difficult to produce more evidence in the short time since the service was established.

Impact on patients, people who use services and/or population safety

There is a hypothetical improvement in patient safety if communication skills in Children and Young People improve, but at present no evidence is available to support this theory.

Impact on patients, people who use services, carers, public and/or population experience

Patient forum feedback indicates high satisfaction from both parents and children (examples detailed below).

Supporting evidence

Clinical quality outcomes:

Clinical effectiveness was measured using the East Kent Outcomes System (EKOS), a tool to help set aims and objectives for episodes of therapy and to evaluate the outcomes set by the Highly Specialist SLT.

EKOS is nationally recognised and is used not only throughout the Specialist SLT team but by other teams across the country (Johnson and Elias, 2010; Metcalfe, 2010).

A parent forum was organised which collated feedback from both the children and their parents regarding service delivery, therapy packages and frequency for instance. Feedback was positive, for example:

Parents:

'Just to say thank-you for making such a difference to our lives'

'The school have been actively involved in therapy. Mrs D communicates effectively via the folder and Child V feels confident receiving therapy in school. All staff members are aware of Child V's needs and act accordingly'

Child:

'You get more practice; proper practice. It's really good because before I learnt it, I would always forget stuff. With the other

speech therapist, you got six lessons and after that I would forget everything she had taught me'.

Evidence of effectiveness

Evidence base for case study	The DVD specialist service model is based on published research and clinical experience (see 'Contacts and resources' for references).
Evidence of deliverables from implementation	It is difficult to determine how deliverable this service would be in other health communities given the small numbers in the current study with this diagnosis.
Where implemented	ECKCS, now Kent Community Health NHS Trust, England.
Degree to which the actual benefits matched assumptions	More than expected. The in-service evaluation report (Developmental Verbal Dyspraxia Service Evaluation report, December 2010) of the DVD service used data including the current and closed DVD caseload managed between January 2009 and October 2010. During this period, a total of 24 cases were seen for therapy, ten of which were closed by October 2010.
If initiative has been replicated how frequently/widely has it been replicated	<p>The initiative has not yet been replicated to our knowledge.</p> <p>The DVD service is in the initial stages of becoming nationally recognised. In October 2010, following submission of the service outline and evidence, the Royal College of Speech and Language Therapists (RCSLT) invited us to present a case study about the service as part of a national event focusing on Effectiveness and Efficiency. The case study described above is included as an example for the RCSLT's Giving Voice Campaign (2010). Also, in October 2010, the RCSLT submitted the case study as part of the Graham Allan Review on Early Intervention (2010) and will potentially include it in an upcoming resource, 'A compendium of effective speech, language and communication interventions' led by the Communication Trust.</p> <p>The DVD service has been involved in the development of a policy statement for Children and Young People with DVD being written and led by RCSLT. The service has also attracted interest by one of the special interest groups in speech disorders, local interest groups and other speech and language therapy professionals across the country as an example of best practice.</p>
Supporting evidence	The intensity of the initiative was determined by clinical experience and has shown that the needs of children with DVD can only be met through intensive input. This view was also supported by ASHA 2007. The DVD specialist service, described here, does not offer 3-4 times weekly input as recommended by ASHA due to resources.

However, the specific management of DVD (which is part of the initiative) was based on all of the references provided. These were critically evaluated and consulted to enable the service delivery model.

Details of implementation

Implementation details

Supporting literature was presented to the commissioners and the trust who in turn allowed the DVD service to be created.

The post is shared by two Band 7, Highly Specialist SLTs. Prior to the DVD specialist service commencing, the following searches were performed:

- A literature search to collate information and examples of good practice in the field of DVD to inform service delivery.
- A case load review to identify case load size and level of need within the department to predict the potential response.
- Extensive searches of current literature on DVD definition and criteria for diagnosis.

Consequently:

- Clear entry/exit criteria were created for clients to receive twice weekly input.
- Once the care pathway was established and the appropriate caseload selected, the twice weekly therapy package commenced. This included offering therapy in school to school-aged Children and Young People and a nursery and home visit to pre-school children. Treatment approach potentially includes traditional phonological and articulation therapy, Nuffield Dyspraxia Programme, Core vocabulary, Dynamic Temporal Tactile Cueing (DTTC), MORE (Suck, swallow, breath synchrony) and Electropalatography (EPG). Treatments are selected to suit the needs of individual children and furthermore are eclectic in using combinations of approaches, as required.

Therapy is delivered by a Band 7 Highly Specialist SLT and carried over on a daily basis by school/nursery staff and parents. Parents and school/nursery staff are required to attend at least one therapy session per week delivered by the SLT in order to develop their knowledge and confidence in supporting the Children and Young People's needs. To facilitate and ensure continuity of therapy delivered by all involved, children have their own individual folders. These include the worksheets for the parents and school/nursery staff to carry out on a daily basis and a 'case note section' which is updated after each therapy session by the person delivering the therapy i.e. SLT, parents/carers, school/nursery staff.

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The Children and Young People's therapy targets are reviewed every 12 weeks and a detailed assessment is carried out initially and then at six monthly intervals to monitor progress and to ensure the therapy is tailored to the individual's speech, language, and communication needs. Targets may be reviewed earlier if progress is quicker than planned.

Time taken to implement

ECKCS took 2 months to set up the initiative.

Ease of implementation

The initiative operates across the healthcare, community and home settings.

Level of support and commitment

The senior management team of the service supported and developed the initiative from existing budgets. The service design and framework was agreed with the Lead Commissioner for Children with Disabilities.

Barriers to implementation

No barriers were recognised at the time of implementation.

Risks

Risks considered:

- The service delivery model could have been found ineffective; for example, caseload too small to warrant investment or outcomes not of clinical significance.
- Possible increased caseload numbers for this client group, due to more accurate identification of need, which may lead to an unmet need. This risk was managed by providing training and clinical supervision to Junior SLTs in a development role.
- Possible decreased caseload numbers for this client group, due to more accurate identification of need, which may lead to this investment deemed unnecessary. However, the DVD Service Evaluation Report found these risks unfounded.
- Long term leave, sick leave and maternity leave would be managed through the Paediatric Speech and Language Therapy Service's Vacancy Policy.

Supporting evidence

Opportunity and time to set the service up was finite, therefore we could not invite service users to participate in the development of the DVD Service from the beginning. However, we used the literature as well as our post-therapy questionnaires from the 'usual' clinic service to inform the delivery model as parents were unhappy with the progress of their children and waiting times, i.e. breaks between blocks of therapy as described above.

The DVD Service is now evaluated through a parent forum consisting of all families, Children and Young People presently on the DVD Care pathway, providing direct feedback. School/nursery staff feedback is collected through the use of post therapy questionnaires. Annual service evaluation is now standard.

Further evidence

Dependencies

- Extensive literature searches were performed to collate information and examples of good practice to inform our service delivery.
 - Defining the characteristics of appropriate cases for the service as well as time to search the literature was necessary.
 - DVD Service to conform with SLT framework agreed with commissioners from the Lead Commissioner for Children with Disabilities.
 - Clear entry/exit criteria for clients to receive twice weekly input, following the defined DVD care service model.
 - Parents and schools to feel confident in the service offered, as identified from the service users' feedback.
 - Support parents and schools in supporting the needs of their children in a collaborative way.
 - This service delivery model is worth further development under audited conditions to determine if the benefits identified in this small study are achievable elsewhere.
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Contacts and resources

Contacts and resources

If you require any further information please email: qualityandproductivity@nice.org.uk and we will forward your enquiry and contact details to the provider of this case study. Please quote reference 10/0043r in your email.

Resources: Assessments

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Resources: Therapy

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ID: 10/0043

Originally Published: August 2011

Last reviewed: March 2016

Next update due: March 2017