

Developmental language disorders at preschool age: no proof of benefit from screening

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Language is a central element of social life. It is not only a prerequisite for personal relationships, but also for employment prospects. If a child's language development is impaired, this can have far-reaching negative consequences. Thus, it would be beneficial if those children who would benefit from targeted help could be identified at a very early stage.

However, the Institute for Quality and Efficiency in Health Care (IQWiG) could not find any proof of benefit from language screening before their 6th birthday for children with a specific developmental disorder of speech and language. At present, there is a lack of screening studies and also of reliable diagnostic instruments. This is the conclusion in the final report, which IQWiG published on 17 August 2009.

No study exists on screening for specific developmental language disorders

Out of the studies that IQWiG identified on early detection of language disorders, there were none that investigated in particular the effects of language screening on children of preschool age with specific developmental disorders in speech and language. IQWiG therefore included in its investigation an assessment of existing diagnostic instruments and interventions in order to answer the question of whether the necessary requirements for a screening programme are met in Germany.

Diagnostic instruments not adequately validated

Out of 17 German-language tests, there was none where the diagnostic quality was adequately investigated in relation to the indication of specific developmental language disorders. Diagnostic instruments would have to be more comprehensively validated - including, for instance, clarification of how many follow-up examinations and/or treatments would be expected after screening. A particular challenge of diagnosing lies in distinguishing between a potential disorder and normal course of development in very young children.

Few indications of short-term positive effects from therapy

In addition to the diagnostic instruments, the report also investigates the benefit of potential therapies, for which IQWiG was able to identify a total of 16 randomized controlled trials (RCTs). However, it was difficult to interpret the trial results: almost all trials were susceptible to bias. In addition, they were very heterogeneous as regards the type of therapy, the selection criteria, the degree of disorder, the intensity and duration of measure.

Children who received speech therapy displayed predominantly positive, short-term effects with regard to language development. The children who participated in intervention programmes improved their grammar, formed more complex sentences, expanded their vocabulary and sound and syllable repertoire, or were more articulate, for example. However, there is very little research on whether these effects continue long-term, and whether the therapies also have a positive effect on the quality of life of the children, their psychosocial and emotional development, and school performance. The studies did not investigate whether the treatment might also have adverse consequences.

There are also no indications or proof that the therapies have a greater benefit in younger children than in older children. None of the therapy studies analysed investigated the effects of an early start to therapy, for example at 3 years of age, as opposed to starting therapy at 6 years of age. Thus, no conclusion can be drawn from the identified studies on the optimal timing for speech therapy treatment.

Requirements for the introduction of a screening programme are not met

According to IQWiG, there is currently a lack of methodological fundament in Germany necessary to introduce universal screening for specific developmental disorders of speech and language. Extensive scientific research therefore needs to be carried out. There is firstly a need for research into validating a screening test (including subsequent diagnosis). Only then would it be possible to investigate the effects of this type of screening and to compare that with the procedure used up till now in child development check-ups.

In addition, the question whether potential therapeutic effects continue in the longer term has to be investigated. Not only the potential benefit of [screening](#) but also its potential harm must be considered here. For example, if a child was falsely diagnosed as having a language disorder, this would constitute a harm. This could have a negative impact on the parent-child relationship or involve a time-consuming therapy that produces no benefit to the child.

Report preparation procedure

IQWiG published the preliminary results in the form of the preliminary report in November 2008 and interested parties were invited to submit comments. When the comments stage ended, the preliminary report was

revised and sent as a final report to the contracting agency, the Federal Joint Committee, in mid-June 2009. Documentation of the written comments and minutes of the oral debate are published in a separate document simultaneously with the final report. The report was produced in collaboration with external experts.

Source: Institute for Quality and Efficiency in Health Care

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