ENCYCLOPEDIA on Early Childhood Development

Literacy as an Outcome of Language Development and its Impact on Children's Psychosocial and Emotional Development

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Introduction

One of the most striking accomplishments of the preschool years is the child's development of speech and language. As children enter school, they are expected to use these newly developed language skills as tools for learning and social negotiation. The important role of spoken and written communication in school-aged children's lives suggests that individual differences in these skills may entail benefits and risks, in terms of broader academic and psychosocial competence.

Subject

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Spoken language competence involves several systems. Children must master a system for representing meaning, and acquire a facility with the forms of language, ranging from the sound structure of words to the grammatical structure of sentences. This knowledge must be joined with their social competence. Much of this learning is accomplished without formal instruction, and what is known is largely tacit in nature. Preschool children begin to develop some awareness of this knowledge by rhyming words, for example, or taking a word apart into syllables. This ability to think about the sounds in words is called phonological awareness. Early reading development in alphabetic languages such as English depends on the integrity of phonological awareness and other related phonological processing abilities.[1]

Learning to read also requires several skills. It is common to differentiate between two main aspects of reading: word recognition and comprehension. Word recognition consists of knowing how a word is pronounced. Early in reading development, children need to recognize letters, be aware of and able to manipulate sounds within words, and use conventions about the relationship between letters and their pronunciation. In addition, the child needs to be able to interpret the meaning of the printed text. The skills involved in this aspect of reading are very similar to those used in listening comprehension.

Although word recognition and comprehension are often considered separately, they can influence one another over development, in a bidirectional way. For example, vocabulary knowledge contributes directly to growth in word recognition,[2,3] and later in the school years, skill in word recognition predicts the rate of vocabulary growth.[4]

Problems

Children may enter school with poor skills in listening, speaking and/or phonological processing. Children with poor listening and speaking skills are referred to as having a language impairment (LI) or developmental language disorder (DLD): current estimates are that about 10% of children entering schools in the U.S. and Canada have LI.[5-7] There are other children for whom phonological processing skills are poor, and these children are at risk for reading disorder (RD). Estimates of the prevalence of RD among school-aged children typically range between 10 and 18%.[8-10] While LI and RD in the early school years can occur alone, it is very common for a child to be affected by both.

In addition to academic difficulties, several studies have shown elevated rates of behaviour problems among children with LI, including externalizing and internalizing problems, and have an especially strong relationship with ADHD.[5,11-27] Similarly, children with a diagnosis of behavioural or emotional disorder very frequently meet the criteria for LI, as do incarcerated youth.[26,28-30] Language impairments are commonly undiagnosed in these children, possibly because professionals are not sensitive to the manifestations of language impairments in this group.[30] Another concerning social outcome for individuals with language impairment is an elevated risk of victimization, including sexual assault.[31,32]

Research Context

The relationships between spoken language development, reading development and social development have been explored by several researchers in an effort to determine the extent to which these problems are associated with each other and the bases for these relationships.

Key Research Questions

The prominent research questions have been concerned with the extent to which aspects of early language status are predictive of later reading and behaviour problems and what the possible bases might be for these relationships. Specifically, two hypotheses have figured prominently in the literature. One hypothesis is that the associations between spoken language and later outcomes are causal. Alternatively, the association of language and reading problems with behaviour problems may rest on a common underlying condition such as a neuromaturational delay that results in poor achievement in both domains.

Recent Research Results

It is clear that as a group, children with LI have poorer reading achievement and higher rates of RD.[33-37] In these studies, the prevalence of RD in children with LI ranged from 25%[8] to 90%.[11] The strong relationship between RD and LI has been shown to be attributable to the limitations these children have in both their ability to understand language and their phonological awareness.[13,14,38-41] The phonological-awareness deficits place them at risk for difficulties in learning decoding skills and the comprehension problems place them at risk for reading comprehension problems.

There are several possible causal relationships between language and behavioural disorders: language difficulties might lead to reactive behaviour problems, behaviour problems could lead

to fewer opportunities for language learning, or the relationship between language and behavioural difficulties could be bidirectional.[18] During the school years, children with poor language may encounter difficulties with the spoken and written communication demands of the classroom, such that communication failure, especially in the classroom, serves as a stressor, and behaviour problems are maladaptive responses to this stressor. In support of this notion, behaviour problems are reported by the children's teachers to a greater degree than their parents. Furthermore, teacher ratings of behaviour problems correspond more closely than parent ratings to child's language test scores.[17,33,42] Further support for this view arises from data showing that among children with LI, reading disorder further increases the risk of behaviour disorder. This supports the notion that LI in conjunction with RD results in the child facing excessive failure, particularly within the classroom, which in turn results in reactive behaviour problems. These conclusions, however, fail to explain why behaviour problems seem to be reported in preschool children with LI,[22] a finding that could be used to argue for an underlying factor such as neurodevelopmental delay that contributes to all these conditions. Another possibility is a bidirectional relationship between language and behavioural difficulties. This idea is supported by evidence that language difficulties at age three increase the risk of conduct disorders at age five, and vice versa.[23] In particular, children with language impairment are vulnerable to difficulties with self-regulation, which may in turn lead to observed behavioural difficulties.[27,43,44]

Research Gaps

Further research efforts are needed, focusing on the particular mechanisms that produce this complex of spoken, written and behaviour problems. Several recent studies have addressed the question of whether certain profiles of language weaknesses are associated with different types of behavioural outcomes.[24,25,31,45-49] This approach seems promising, as it could help focus interventions on the communication skills that are most likely to affect important outcomes. There is also a need for classroom-based studies of how children with language difficulties respond to communication demands and failure. Finally, given the risk of adverse outcomes such as incarceration or victimization, there is a need to continue to identify experiences and skills that contribute to resilience in children with early language difficulties.[48-50]

Conclusions

The existence of a strong relationship between spoken language skills and subsequent reading and behaviour development is generally supported in the literature. The basis of the relationship between early spoken language and later reading development is thought to be causal in nature, such that spoken language skills, especially phonological awareness and listening comprehension, are fundamental precursors to later successful reading. Children with limitations in phonological processing are at risk for early decoding problems, which can then lead to problems of reading comprehension. Children with problems of listening comprehension are at risk for reading comprehension problems even if they can decode words. These skills can also dynamically interact over development.

The basis of the relationship between spoken language and later behaviour problems is less clear, although it seems possible that there are multiple mechanisms that could explain the relationship. In particular, academic difficulties that result from LI may contribute to the increased risk of behavioural disorders.

Implications

The evidence is compelling that a foundation in spoken language competence is important for the successful achievement of academic and social competence. Children with poor language skills are therefore at risk for reading and psychosocial problems. Language difficulties could be identified efficiently at school entry. This identification process should be an especially high priority for children who already show signs of behavioural difficulties, given the high incidence and low identification of language difficulties in this group. Interventions are available for promoting language growth, and in particular, numerous programs exist to promote phonological awareness. Additionally, intervention efforts need to focus on approaches that provide supportive educational environments, to reduce the stressors that may result in maladaptive behaviours. Finally, early intervention efforts are warranted, to support the development of language skills prior to school entry. Where successful, such efforts could be expected to reduce a child's risk of important academic and psychosocial difficulties throughout childhood, and into adulthood.

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