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Early Identification of Dyslexia: Benefits, Challenges, and the Importance of Parental Awareness

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Abstract

Adults and children can both develop dyslexia, a chronic condition that presents numerous challenges in their social and academic environments. Children with dyslexia often struggle in school, which can lead to feelings of frustration and low self-worth, potentially impacting their long-term well-being. It is crucial for parents to be aware of dyslexia and how it affects their children in order to ensure their sustainable growth. Keep in mind that there is no universal or single method for learning, as every individual is unique and learns, thinks, and behaves differently. This understanding can help dyslexic children lead better lives and overcome the stigma associated with dyslexia. It's common for both parents and children to be hesitant to seek assistance due to the stigma surrounding dyslexia, which can hinder the child's educational progress. This paper aims to provide an overview of the benefits and challenges of early dyslexia identification. Dyslexic children often struggle with developing reliable and efficient phonemic decoding abilities, which makes acquiring a lexicon of sight words a slower process than it is for the average reader. Several factors can impact a child's ability to read, which are discussed in this paper. However, early recognition and treatment of inadequate phonologic awareness are crucial in preventing reading problems in children who are at risk of dyslexia.

Keywords: Dyslexia, Parenting, Parent's empowerment, Risk Factors

Introduction

Dyslexia is a particular type of learning disability that impacts a select group of individuals. People with dyslexia face challenges in reading, comprehending, and spelling words, letters, and symbols, as well as with understanding what they read. Dyslexia may have a genetic component, although the precise cause remains unknown. Students with dyslexia are often wrongly labelled as lazy, slow learners, distracted, unfocused, and not putting in enough effort. They may also struggle with reading, writing, basic math, copying from the board, spelling, grammar, and completing assignments on time. This can make it difficult for them to keep up with their peers and cause anxiety problems. Despite these difficulties, individuals with dyslexia can possess high intelligence and creativity, which can be harnessed to pursue fulfilling careers in a variety of fields, including engineering, science, business, and the arts. Many successful professionals, artists, innovators, and businessmen have been diagnosed with dyslexia, while others have not.



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Students can pursue any career path with the appropriate support and accommodations. They only need a substantial, progressive support network to help them learn according to their modified learning requirements and advance with assurance until they enter the workforce. It can be challenging for parents to accept and comprehend how to support their child when they are initially diagnosed with dyslexia or other covert learning disabilities. However, these two elements are crucial to providing the child with the necessary support. Therefore, parents should collaborate. Acceptance: It is essential to recognize that dyslexia and other learning disabilities are simply learning difficulties that frequently run in families. Each person learns differently, and some students may struggle with conventional learning methods. Studies have demonstrated that individuals with learning disabilities have differently wired brains, which causes learning discrepancies. To help their child succeed, parents must acknowledge that their child is simply a different learner and that they require the appropriate assistance in school and college. Confidence: The second critical area in which parents can help is fostering and preserving their child's self-esteem or confidence. It is a challenging journey for a child to navigate the demands of learning in an educational system that may not be entirely designed to accommodate learning challenges. Every day, there are new tasks at school that can be difficult. When a child struggles with their studies, interacts with peers who may not be supportive, and deals with the stigma associated with having a hidden disability, their confidence may suffer. By providing their child with the necessary support, parents can help them maintain their confidence and achieve their goals. The initial challenge that needs to be addressed is the lack of selfvalue and assurance. It's crucial for parents to be knowledgeable and take action, whether it's by contacting the school, educators, and peers, collaborating with them, or seeking additional time or help with reading and writing. The most vital aspect is to recognize the child's strengths and ensure they are emphasized. This will provide the child with more self-assurance, which will ultimately benefit their overall learning process.

Tools for Support: Many educational institutions are currently implementing inclusive teaching methods to accommodate neurodiverse learners in light of the growing support and awareness. Remedial actions and assistive technology can also be helpful in this regard. While cooperating with the school, parents must take an active role in the process. Self-advocacy can be challenging and emotionally draining, and it may not start until the child is older. Therefore, it's essential for parents to intervene during the early years by assisting in creating teaching-learning schedules, working with subject matter experts and remedial teachers, obtaining extra time, readers, or writers, or using the latest advancements in assistive technology. A parent who is emotionally stable, well-informed, and communicative, and who can act as a supportive, understanding, and cooperative partner with their child on this journey can truly transform things.

Dyslexia is a developmental disorder that is believed to have a genetic basis, and it affects a higher proportion of boys than girls, although the gender ratio is greater in referred samples. The primary issue with dyslexia is difficulty with word decoding, which in turn negatively impacts the development of spelling and reading fluency. Dyslexia persists throughout an individual's life, and adult outcomes are varied; some with dyslexia pursue higher education, while others leave school with minimal qualifications. Many adults with dyslexia report slow reading, problems with spelling, and difficulties with written expression, as well as challenges with working memory, attention, and organization.

Traditionally, dyslexia was defined as a specific reading difficulty affecting children whose reading achievement was below what was expected based on their age and intelligence quotient (IQ). However, over time, this definition has become less popular, and it is now recognized that dyslexia can occur across



the IQ spectrum, although it is important to note that those with higher IQs are likely to perform better in reading comprehension.

The most commonly accepted explanation for dyslexia is that it originates from a phonological deficit that affects the processing of speech sounds in words (Vellutino et al., 2004). Early warning signs of dyslexia include difficulties with developing phonological awareness and problems with phonological learning (Carroll and Snowling, 2004). These difficulties can lead to problems with letter knowledge, which is frequently one of the first indicators of reading difficulties. As a result, individuals with dyslexia may struggle with word recognition and phonological decoding, particularly when attempting to read unfamiliar words (Rack, Snowling, and Olson, 1992). These difficulties can further impede reading comprehension, as slow and inaccurate word reading can hinder a person's ability to fully understand what they are reading.

Definition of Dyslexia and other Reading Difficulties

It is critical to identify reading difficulties at an early stage for effective intervention, but defining dyslexia and other reading difficulties can be a complex process. The Simple View of Reading (Gough & Tunmer, 1986; Hoover & Gough, 1990) provides a useful framework for understanding why some individuals struggle with reading comprehension. According to this model, reading comprehension is the product of word reading abilities (decoding and word recognition abilities) and language comprehension abilities. Deficits in either of these areas can result in different profiles of reading difficulty, which may require different types of intervention.

The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) provides specific diagnostic criteria for dyslexia, a neurodevelopmental disorder characterized by difficulties in decoding, word reading accuracy and fluency, and spelling (American Psychiatric Association, 2013). According to the DSM-5, the term "dyslexia" is used exclusively to refer to children who struggle with reading words despite having age-appropriate language comprehension skills. Children with weaknesses in both areas are referred to as "generally poor readers," while those with age-appropriate word reading abilities but poor oral language skills are called "poor comprehenders." These children can read words without difficulty, but their reading and listening comprehension is impaired due to their oral language difficulties.

In order to diagnose dyslexia, a child must have struggled with reading for at least six months despite adequate intervention, and their difficulties cannot be attributed to other factors such as intellectual disabilities, psychosocial adversity, or inadequate instruction. This tutorial aims to identify children with word reading difficulties, including those with dyslexia under the DSM-5 definition, those who do not meet the criteria, and those with additional difficulties such as being generally poor readers. We believe that any child with inadequate word reading skills for their age should be entitled to appropriate intervention, regardless of whether their difficulties are due to neurodevelopmental issues, socioeconomic factors, inadequate early instruction, or other factors such as weak oral language skills or limited exposure to English. However, knowledge about the causes or comorbidities of these difficulties can be crucial for determining the nature and intensity of intervention. (e.g. see Al Otaiba, Rouse & Baker, this issue).

Our primary objective is to identify word reading difficulties at the commencement of formal education, which comprises the pre-school and the initial two years of schooling. It is essential to recognize that spelling is intimately connected to word reading difficulties and is often a consequence of impairments in similar fundamental skills. Nevertheless, spelling may necessitate specific focus and targeted intervention,



as expounded upon by Caravolas, Hulme, & Snowling (2001); Kohnen, Nickels & Castles (2009); and Vellutino, Fletcher, Snowling, & Scanlon (2004).

How can we determine if a child is struggling with reading?

The efficacy of early intervention largely hinges on the methods utilized to identify children at risk of encountering difficulties with literacy. These methods must be precise and sensitive. They must be precise enough to prevent over-identification of children who are not genuinely at risk, as misdiagnosis can lead to unnecessary stress and anxiety for parents or caregivers, stigmatization from being labeled as impaired, and wasted time and resources (Catts, 2017). However, it is equally important that identification methods are sensitive enough to detect all children who are at risk of developing reading difficulties, as the consequences of missing children who are at risk are severe and long-lasting. Reading is a complex skill that requires a wide range of knowledge and skills, and reading abilities vary along a spectrum. There is no objective cutoff point below which all children are poor readers and above which all children are good readers (Bishop, 2015; Snowling, 2013). Despite this, time and financial constraints may require the use of a defined cutoff point to determine which children receive additional support and intervention.

In the research literature, word reading difficulties are commonly operationalized as performance in the lowest 16% or 25% of the population (equivalent to a standard score below 85 or 90). Cutoff points may vary widely in clinical and educational settings. The choice of cutoff is critical – it will impact the sensitivity and specificity of identification methods, and should be guided by research on optimal criteria in specific populations (Catts, 2017; O'Connor & Jenkins, 1999; Speece, 2005).

Children's abilities develop rapidly due to both maturation and education, and different identification methods are more sensitive at different stages of development (Cunningham & Carroll, 2011; Speece, 2005; Thompson et al., 2015). When formal reading instruction begins, progress can be assessed using curriculum-relevant reading measures, which will be discussed in greater detail in the implementation of early identification sections. However, prior to formal instruction, measuring reading skills can be challenging or even impossible. Therefore, it is particularly crucial during the pre-school years to consider a range of reading-related skills and risk factors when determining the likelihood of future reading difficulties (Pennington et al., 2012). We will explore such factors in further detail below.

Risk factors

Reading difficulties are a complex interplay of genetic, environmental, cognitive, and non-cognitive risk factors that vary among individuals, according to Carroll, Mundy, and Cunningham (2014), Pennington et al. (2012), and Thompson et al. (2015). It is crucial to identify children at risk for reading difficulties based on multiple, probabilistic difficulties. Some risk factors, such as difficulties in underlying cognitive skills, may be directly and causally related to word reading, while others may have an indirect effect on literacy acquisition. Regardless, the greater the number and severity of risk factors, the more likely the individual is to develop reading difficulties, as reported by Snowling (2008). The following sections discuss several risk factors that may serve as early indicators of future reading difficulties.

Genetic Factors

There is a significant body of research that suggests a genetic predisposition to reading difficulties; children with a family history of reading difficulties are at a higher risk of developing reading difficulties themselves compared to those without a family history (Pennington & Lefly, 2001; Scarborough, 1990;



Snowling et al., 2003; Thompson et al., 2015). Therefore, it is essential to consider family history when monitoring the development of reading skills and to closely monitor the progress of relatives of those with reading difficulties.

Oral Language Skills

Weak oral language abilities at the onset of learning to read have been linked to an increased likelihood of encountering future reading challenges (Catts, Fey, Tomblin, & Xhang, 2002; Snowling, 2014). On the other hand, adequate oral language skills may serve as a protective factor. Children from families with a history of reading difficulties who possess age-appropriate oral language skills are less likely to develop reading difficulties. Perhaps, they can use these strengths in oral language to compensate for other weaknesses (Snowling et al., 2003; Snowling, 2008). Here, we focus on phonological skills, vocabulary knowledge, and morphological awareness impairments as risk factors for the development of word reading difficulties. Additionally, we examine the consequences of speech and hearing difficulties.

Phonological Skills and letter knowledge

At a young age, children learning to read and spell in an alphabetic language like English must first understand how letters correspond to sounds. They then progress to blending sounds together to pronounce words and segmenting sounds to spell words. This understanding of letter-sound relationships, blending, and segmenting is commonly referred to as phonics. Once children have acquired these skills, they possess a significant portion of the tools necessary to develop a mental repository of word spellings and pronunciations. For example, as Share (1995) argues in the self-teaching hypothesis, once children can decode or blend for reading, they can teach themselves to read words that they have never seen before.

Knowledge of phonology is crucial for effective phonics and early word reading. In fact, weaknesses in phonological processing are strongly associated with difficulties in decoding, word reading, and spelling (Carroll et al., 2014; Melby-Lervag, Lyster, & Hulme, 2012; Snowling et al., 2003). Assessments of the ability to manipulate and make judgments about units of sound at the phoneme level (phonemic awareness) are particularly strong predictors of future reading abilities (Melby-Lervag et al., 2012). In numerous studies, phonemic awareness is the strongest single predictor of word reading difficulties (e.g., Pennington et al., 2012; Snowling, 2000), although prediction is more accurate when other relevant factors are also considered, and phonological difficulties alone are not always sufficient to cause dyslexia (Carroll, Solity, & Shapiro, 2016; Pennington et al., 2012; Snowling, 2008, 2014).

Evidence from longitudinal and training studies suggests that there is a causal relationship between phonemic awareness and reading abilities (e.g., Melby-Lervag et al., 2012).

Letter knowledge is a critical predictor of future word reading and spelling skills (e.g. Caravolas et al., 2001; Pennington & Lefly, 2001; Thompson et al., 2015). Understanding the names and sounds of letters is essential for learning the relationship between written and spoken language, as well as phonemic knowledge. As with phonemic awareness, research from longitudinal and training studies indicates that letter knowledge may be causally related to later reading abilities (Hulme & Snowling, 2014).

Vocabulary Knowledge

In order to fully comprehend a given text, a child must possess a thorough understanding of all its words. While the link between these two aspects is not yet fully understood, two hypotheses have been proposed to explain it. Firstly, a strong vocabulary allows children to correct their incomplete decoding attempts



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(Dyson, Best, Solity, & Hulme, 2017; Share, 1995; Tunmer & Chapman, 2012). For example, a child who sounds out the word "deaf" as /deef/ may infer the correct pronunciation of the word based on its closest pronunciation in their spoken vocabulary. Secondly, good vocabulary skills may impact word reading through their influence on phonological processing. The Lexical Restructuring Model suggests that growth in oral vocabulary results in a more detailed specification of phonology, which in turn better supports word reading development (as previously mentioned). While evidence supporting this model is mixed (e.g., Goodrich & Lonigan, 2014; Lerner & Lonigan, 2016), it remains a crucial aspect of understanding the complex relationship between oral vocabulary knowledge and reading comprehension. All information and data must be considered together to gain a deeper insight into this relationship.

While certain researchers assert that a child's oral vocabulary knowledge in pre-school or during the initial year of formal schooling serves as a reliable predictor of their later word reading abilities, longitudinal studies have produced inconsistent findings (Duff, Reen, Plunkett, & Nation, 2015; Muter, Hulme, Snowling, & Stevenson, 2004). However, vocabulary knowledge assessed in the later elementary years does demonstrate a strong correlation with both word and irregular word reading ability (Nation & Snowling, 2004; Ricketts, Nation, & Bishop, 2007). Furthermore, a recent study discovered that six-year-olds' ability to read both regular and irregular words was closely linked to their understanding of the words' meanings (Ricketts, Davies, Masterson, Stuart, & Duff, 2016). In addition, a training study conducted by Wang, Nickels, Nation, & Castles (2013) revealed that children were more successful in learning to read novel irregularly spelled words when they had a grasp of the words' meanings. Thus, it is essential to closely monitor the reading abilities of children with limited vocabulary skills, particularly if they exhibit other risk factors associated with reading difficulties.

Morphological Awareness

English is a language that relies heavily on a combination of phonology, morphology, and orthography for accurate spelling. For instance, correctly spelling the word "missed" requires an understanding of past tenses. Morphological awareness, which is the ability to recognize and manipulate the morphological structure of words, is crucial for both accurate spelling and comprehension. Research has shown that children with dyslexia often have weak or atypical morphological skills. There is ongoing debate among researchers about when morphological skills become important for literacy. Some argue that children initially focus on phonology, while more recent frameworks suggest that children use their knowledge of morphology from the very beginning of their development. A growing body of evidence suggests that morphology plays a crucial role in reading and spelling from the start. It is essential to use only American English when writing, adhering strictly to its spelling, specific terms, and phrases.

Studies have shown that the teaching of morphological principles can lead to improved reading and spelling abilities, suggesting that morphological knowledge might have a causal effect on reading development (Bowers, Kirby, & Deacon, 2010). However, there is ongoing debate about whether early reading instruction should incorporate morphology (Bowers & Bowers, 2017; Rastle, 2018), with opinions differing among researchers. Although few empirical studies have directly addressed this issue, it is widely acknowledged that children who lack strong morphological skills may be at risk for reading and spelling difficulties.

Hearing Difficulties

Early identification of reading difficulties is crucial, and hearing plays a vital role in this process. Deafness



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and hearing loss can negatively impact the quality and nature of exposure to spoken language, leading to deficiencies in oral language skills, including phonological skills and vocabulary, and ultimately reading. As a result, children who are deaf or hard of hearing are at a significantly higher risk of experiencing literacy difficulties compared to their hearing counterparts. Although individual differences exist, deaf children often experience severe reading difficulties. On average, by the end of elementary school, deaf children lag behind hearing children by three years in reading, and this gap widens, with deaf children making only a third of the expected annual progress (Herman, Roy, & Kyle, 2014; Kyle & Harris, 2010). However, research has shown that factors such as phonological awareness, vocabulary, and language skills (both signed and spoken) can predict literacy attainment for deaf children (Kyle, Campbell, & MacSweeney, 2016; Mayberry, del Giudice, & Lieberman, 2011). It is not only severe or profoundly deaf children who are at a greater risk of reading difficulties. Children with mild-to-moderate or unilateral hearing loss, as well as those with a history of fluctuating hearing loss due to glue ear (repeated middle ear infections also known as otitis media with effusion), are also at a higher risk of experiencing reading difficulties compared to their hearing peers.

According to Carroll and Breadmore (2018), children with mild-to-moderate or fluctuating hearing loss are not at as high a risk for vocabulary and language difficulties as those with severe and profound deafness. However, these children may experience more specific difficulties in phonology. Despite this, it is important to recognize all levels of permanent and temporary hearing loss as risk factors for reading difficulties. To assess the level of risk and provide appropriate intervention, it is crucial to evaluate the individual child's pattern of strengths and weaknesses in literacy-related cognitive skills, such as phonological and morphological awareness and vocabulary.

Speech Sound Disorders

Children who experience persistent difficulties with speech production, without any physical issues (APA, 2013), are at an increased risk of developing reading difficulties. However, the relationship between these two is intricate. According to a recent study (Hayiou-Thomas et al., 2017), children with speech sound disorders that persist until the start of school have a small but significant risk of phonemic awareness and spelling difficulties, which decline over time. The risk of reading and spelling difficulties is much greater for children with speech-sound disorders who also have co-occurring language difficulties and/or a family history of reading difficulties. These factors accumulate to increase the risk (Hayiou-Thomas et al., 2017). Other cognitive factors

Numerous cognitive factors have been linked to reading abilities, such as rapid automatic naming (RAN), short-term memory, working memory, and executive functions (e.g., Alloway & Alloway, 2010; Gathercole et al., 2006; St Clair-Thompson & Gathercole, 2006). In particular, RAN has been found to serve as a powerful predictor of future reading achievement (e.g., Caravolas et al., 2012; Manis et al., 1999). However, the evidence supporting causal relationships between these skills and reading remains inconclusive, and programs aimed at enhancing these broader cognitive skills have not proven effective in improving reading abilities. Consequently, we refrain from delving into these risk factors in more detail.

Identify Word Reading Difficulties Early with the help of Risk Factors

Studies have shown that individual risk factors, such as a child's age, IQ, and exposure to print, are not reliable predictors of reading difficulties on their own (Carroll et al., 2016; McArthur et al., 2013; Pennington et al., 2012). Moreover, there is no single cause for word reading difficulties, as children with



such difficulties exhibit diverse patterns of impairment (O'Connor & Jenkins, 1999; Speece, 2005; Thompson et al., 2015). Importantly, the importance of different risk factors may change over time, and what may be a strong indicator of future difficulties at a young age may not be as effective at a later age (Carroll et al., 2016; McArthur et al., 2013; Pennington et al., 2012; O'Connor & Jenkins, 1999; Speece, 2005; Thompson et al., 2015). As a result, it is not possible to recommend a single risk factor or assessment that can identify all children who will develop word reading difficulties. Instead, the presence and severity of individual risk factors should be seen as warning signs that a child's emerging and developing literacy needs to be closely monitored. The following section discusses ways to monitor and assess a child's literacy development.

Process for implementing early identification

Response to Intervention (RTI) is a widely studied framework for early identification of reading difficulties. It is a multi-tiered system that combines instruction and assessment to determine which children require additional support (Fuchs & Fuchs, 2006; Fuchs, Fuchs, & Speece, 2002). RTI typically includes three tiers of instruction (Gersten et al., 2009), with the first tier providing evidence-based initial reading instruction to all students in regular classrooms, and using curriculum-relevant assessments to monitor their progress regularly. Successful response to instruction is defined as achieving a predetermined amount of progress or reaching predetermined standards on a specific assessment task. The initial stage of identification focuses on the functional consequences of reading difficulties rather than their underlying causes. Children who do not meet predetermined criteria proceed to the second tier of instruction, where they receive additional support, such as more explicit or frequent instruction or instruction in smaller groups. Regular monitoring of their progress continues, and if these children fail to meet required standards, they may be referred for in-depth assessment and/or special education services to address their specific needs.

One of the key benefits of Response to Intervention (RTI) is that it allows for early monitoring of children's progress in reading instruction, rather than waiting for students to fail before providing additional support. This approach promotes high-quality, evidence-based initial instruction, which can decrease the number of children who fail to learn to read due to inadequate instruction. However, RTI implementation faces challenges such as the complexity associated with early identification and the need for selecting appropriate criteria for growth and achievement in reading abilities and sensitive, specific, and reliable assessments. Despite differences in implementation between the US and England, both countries face similar challenges in implementing effective RTI practices.

Since its inception in 2004, Response to Intervention (RTI) has played a crucial role in the national guidelines for identifying and addressing learning difficulties in the United States (Arden, Gruner Gandhi, Zumeta Edmonds, & Danielson, 2017; Gersten et al., 2009; IDEA 2004). Although the decision to implement RTI lies with individual states and local education agencies, extensive research studies have consistently demonstrated the effectiveness of RTI methods (e.g. Burns, Appleton, & Stehouwer, 2005; Gersten, Newman-Gonchar, Haymond, & Dimino, 2017). However, recent findings from a large-scale, nationwide evaluation of RTI revealed less positive results.

The study results suggest that RTI was ineffective, but there are some criticisms to consider. Firstly, not all students below the cut-point received Tier 2 intervention, while some above the cut-point did, which raises concerns about the implementation of RTI and its comparison with those not receiving intervention (Fuchs & Fuchs, 2017; Gersten, Jayanthi, & Dimino, 2017). Secondly, some schools had extremely high



cut-points, with an average of 41% of students receiving Tier 2 intervention (Balu et al., 2015), which could mean that some students received instruction that was not appropriate for their skill level. Thus, the evaluation results should not be taken as evidence that RTI does not work, but rather, as evidence that RTI did not benefit children whose scores fell just below their school's cut-off point (Gersten, Jayanthi, et al., 2017.

Larger scale trials have yielded positive results that support the effectiveness of Response to Intervention (RTI). However, these studies often require extensive support, training, and monitoring from specialists, suggesting that investing additional resources in training and monitoring implementation at the school level may be beneficial. Before allocating resources in this manner, further research is necessary to determine the most effective assessment methods, intervention strategies, and approaches that ensure that Tier 1 and Tier 2 instructional methods work together effectively. It is also essential to identify the contexts in which specific RTI implementation methods are most effective, as different settings may require distinct approaches.

A study conducted by the Department for Education showed that the EYFS Profile is a dependable predictor of reading and writing outcomes. To address concerns about administrative burden and lack of guidance, the Department for Education is introducing statutory assessments, such as the Phonics Screening Check, and considering a baseline assessment. Despite criticisms, systematic phonics methods used in conjunction with the check have been shown to improve reading outcomes, with 81% of students achieving expected standards. England's performance in the 2016 PIRLS study was the highest among participating countries, and lower-performing students made notable gains.

What part in the early identification process can speech-language pathologists play?

The successful identification of reading difficulties at an early stage requires sensitive and specific assessments that are linked to instructional recommendations. Speech-language pathologists (SLPs) have a crucial role to play in contributing to a multidisciplinary approach to Response to Intervention (RTI). They can assist in assessment choice, screening, and progress monitoring by using a variety of assessments to highlight areas of strength and weakness. Gated assessment procedures can efficiently identify at-risk students for further intervention. Flexibility in setting cut-points is essential, as generic guidelines may not fit every context. Despite guidelines supporting SLP involvement, barriers may exist, hindering their participation in literacy identification and intervention, despite the clear link between oral language skills and reading abilities.

Despite the difficulties, speech-language pathologists (SLPs) can still play a crucial role in identifying literacy challenges. They can inform parents about potential issues and suggest assessments and interventions. In addition, some SLPs may administer screening assessments or utilize existing resources. Furthermore, they can modify interventions to incorporate written language components, such as focusing on letter-sound correspondence and integrating written text discussions into activities.

Limitations of Early Identification

Although research shows that children who receive intervention during the early years of schooling tend to have better long-term outcomes than those who receive intervention later, it is essential to monitor their progress throughout their education. In some cases, early intervention may help children catch up to their peers, particularly in areas such as letter-sound knowledge. However, early gains may not be sustained over time, and short-term intervention may not be sufficient for those with significant weaknesses in word



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reading ability or who are at the highest risk. Ongoing support may be required as the demands of the curriculum change. Therefore, early intervention should be viewed as a starting point of the intervention and support process. Moreover, it is important to note that some forms of reading difficulty may not become apparent until later in schooling due to the multifaceted nature of reading. While there is a focus on early identification of word reading difficulties, monitoring reading comprehension skills throughout the school years is crucial. Reading comprehension difficulties may not become apparent until the later elementary years when children are expected to read independently and learn from what they read. Identification of reading difficulties. Therefore, early identification of word reading difficulties can be challenging, particularly when they emerge in the absence of word reading difficulties. Therefore, early identification of word reading difficulties is crucial, but monitoring of word reading, reading comprehension, and other literacy skills should continue throughout the school years. Such monitoring should be supported by strong classroom instruction, not only in phonics but also in oral vocabulary, morphological knowledge, reading comprehension strategies, and writing skills.

Conclusion

Early diagnosis of reading difficulties is a complex and difficult process, but it is crucial to improving outcomes for children with these difficulties. Ideally, speech-language pathologists (SLPs) should collaborate with teachers to conduct early diagnosis. However, even if this is not feasible, SLPs can still play a crucial role by recognizing the risk factors associated with the development of future reading difficulties and incorporating written language into their assessment and intervention techniques as much as possible. SLPs can also work closely with parents to ensure that they are aware of the early warning signs. The Response to Intervention (RTI) model is a promising approach to early identification and service delivery, but the best way to implement it is still under debate. More research is needed to determine the specifics of early identification and RTI, but it is clear that the success of implementation depends on adequate funding and support (Arden et al., 2017; D. Fuchs & Fuchs, 2017; Gersten, Jayanthi, et al., 2017). Early diagnosis should be a priority for every school and education system, but it should not be the only service delivery option for children with reading difficulties – rather, it should be the first step in an ongoing cycle of monitoring and intervention that continues beyond the elementary years. Only then will children with reading difficulties have the opportunity to reach their full potential.

References

- 1. Andrade, O. V. C. D. A., Andrade, P., & Capellini, S. A. (2015). Collective screening tools for early identification of dyslexia. *Frontiers in Psychology*, *5*. https://doi.org/10.3389/fpsyg.2014.01581
- Boets, B., Wouters, J., Van Wieringen, A., & Ghesquière, P. (2006). Auditory temporal information processing in preschool children at family risk for dyslexia: Relations with phonological abilities and developing literacy skills. *Brain and Language*, 97(1), 64–79. https://doi.org/10.1016/j.bandl.2005.07.026
- Bonifacci, P., Montuschi, M., Lami, L., & Snowling, M. J. (2013). Parents of Children with Dyslexia: Cognitive, Emotional and Behavioural Profile. *Dyslexia*, 20(2), 175–190. https://doi.org/10.1002/dys.1469
- 4. Brante, E. W. (2013). 'I don't know what it is to be able to read': how students with dyslexia experience their reading impairment. *Support for Learning*, 28(2), 79–86. https://doi.org/10.1111/1467-9604.12022



- Castellanos, F. X., & Tannock, R. (2002). Neuroscience of attention-deficit/hyperactivity disorder: the search for endophenotypes. *Nature Reviews Neuroscience*, 3(8), 617–628. https://doi.org/10.1038/nrn896
- 6. Catts, H. W. (1991). Early identification of dyslexia: Evidence from a follow-up study of speechlanguage impaired children. *Annals of Dyslexia*, 41(1), 163–177. https://doi.org/10.1007/bf02648084
- Catts, H. W., Adlof, S. M., & Weismer, S. E. (2006). Language Deficits in Poor Comprehenders: A case for the simple view of reading. *Journal of Speech Language and Hearing Research*, 49(2), 278–293. https://doi.org/10.1044/1092-4388(2006/023
- 8. Colenbrander, D., Ricketts, J., & Breadmore, H. L. (2018). Early identification of Dyslexia: Understanding the issues. *Language Speech and Hearing Services in Schools*, 49(4), 817–828. https://doi.org/10.1044/2018_lshss-dyslc-18-0007
- 9. Flint, J. (1999). The genetic basis of cognition. *Brain*, 122(11), 2015–2032. https://doi.org/10.1093/brain/122.11.2015
- Franceschini, S., Gori, S., Ruffino, M., Pedrolli, K., & Facoetti, A. (2012a). A Causal Link between Visual Spatial Attention and Reading Acquisition. *Current Biology*, 22(9), 814–819. https://doi.org/10.1016/j.cub.2012.03.013
- Gaggi, O., Palazzi, C. E., Ciman, M., Galiazzo, G., Franceschini, S., Ruffino, M., Gori, S., & Facoetti, A. (2017). Serious games for early identification of developmental dyslexia. *Computers in Entertainment*, 15(2), 1–24. https://doi.org/10.1145/2629558
- 12. Germano, G. D., De Cerqueira César, A. B. P., & Capellini, S. A. (2017). Screening protocol for early identification of Brazilian children at risk for dyslexia. *Frontiers in Psychology*, 8. https://doi.org/10.3389/fpsyg.2017.01763
- Hutchinson, J., Whiteley, H., Smith, C., & Connors, L. (2004). The early identification of dyslexia: Children with English as an additional language. *Dyslexia*, 10(3), 179–195. https://doi.org/10.1002/dys.275
- 14. Kumari, K., & Yadav, R. K. (2024). The Impact of Cyberbullying on Adolescents: Defining characteristics, consequences, and prevention strategies. *International Journal for Multidisciplinary Research*, 6(1). https://doi.org/10.36948/ijfmr.2024.v06i01.13915
- 15. Lyon, G. R., Shaywitz, S. E., & Shaywitz, B. A. (2003). A definition of dyslexia. *Annals of Dyslexia*, 53(1), 1–14. https://doi.org/10.1007/s11881-003-0001-9
- Lyytinen, H., Erskine, J., Ahonen, T., Aro, M., Eklund, K., Guttorm, T. K., Hintikka, S., Hämäläinen, J. A., Ketonen, R., & Laakso, M. (2008). Early Identification and Prevention of Dyslexia: Results from a Prospective Follow-up Study of Children at Familial Risk for Dyslexia. In *SAGE Publications Ltd eBooks* (pp. 121–146). https://doi.org/10.4135/9780857020987.n7
- Lyytinen, H., Erskine, J., Hämäläinen, J. A., Torppa, M., & Ronimus, M. (2015). Dyslexia—Early Identification and Prevention: Highlights from the Jyväskylä Longitudinal Study of Dyslexia. *Current Developmental Disorders Reports*, 2(4), 330–338. https://doi.org/10.1007/s40474-015-0067-1
- Lyytinen, H., Ronimus, M., Alanko, A., Poikkeus, A., & Taanila, M. (2007). Early identification of dyslexia and the use of computer game-based practice to support reading acquisition. *Nordic Psychology*, 59(2), 109–126. https://doi.org/10.1027/1901-2276.59.2.109
- McGrath, L. M., Smith, S. D., & Pennington, B. F. (2006). Breakthroughs in the search for dyslexia candidate genes. *Trends in Molecular Medicine*, 12(7), 333–341. https://doi.org/10.1016/j.molmed.2006.05.007



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- Ozernov-Palchik, O., Norton, E. S., Sideridis, G. D., Beach, S. D., Wolf, M., Gabrieli, J. D. E., & Gaab, N. (2016). Longitudinal stability of pre-reading skill profiles of kindergarten children: implications for early screening and theories of reading. *Developmental Science*, 20(5). https://doi.org/10.1111/desc.12471
- 21. Pickering, S. J. (1995). The early identification of dyslexia. http://europepmc.org/theses/ETH/364303
- 22. Scarborough, H. S. (1990). Very early language deficits in dyslexic children. *Child Development*, 61(6), 1728. https://doi.org/10.2307/1130834
- 23. Schatschneider, C., & Torgesen, J. K. (2004). Using our current understanding of dyslexia to support early identification and intervention. *Journal of Child Neurology*, *19*(10), 759–765. https://doi.org/10.1177/08830738040190100501
- Shaywitz, S. E., Morris, R. D., & Shaywitz, B. A. (2008). The Education of Dyslexic Children from Childhood to Young Adulthood. *Annual Review of Psychology*, 59(1), 451–475. https://doi.org/10.1146/annurev.psych.59.103006.093633
- 25. Smith, S. D. (2007). Genes, language development, and language disorders. *Mental Retardation and Developmental Disabilities Research Reviews*, *13*(1), 96–105. https://doi.org/10.1002/mrdd.20135
- 26. Snowling, M., Hulme, C., & Nation, K. (2020). Defining and understanding dyslexia: past, present and future. *Oxford Review of Education*, 46(4), 501–513. https://doi.org/10.1080/03054985.2020.1765756
- Snowling, M. J. (2012). Early identification and interventions for dyslexia: a contemporary view. Journal of Research in Special Educational Needs, 13(1), 7–14. https://doi.org/10.1111/j.1471-3802.2012.01262.x
- Snowling, M. J., & Hulme, C. (2011). Annual Research Review: The nature and classification of reading disorders – a commentary on proposals for DSM-5. *Journal of Child Psychology and Psychiatry*, 53(5), 593–607. https://doi.org/10.1111/j.1469-7610.2011.02495.x
- 29. Torppa, M., Poikkeus, A., Laakso, M., Tolvanen, A., Leskinen, E., Leppänen, P., Puolakanaho, A., & Lyytinen, H. (2007). Modeling the Early Paths of Phonological Awareness and Factors Supporting its Development in Children With and Without Familial Risk of Dyslexia. *Scientific Studies of Reading*, *11*(2), 73–103. https://doi.org/10.1080/10888430709336554
- Van Bergen, E., De Jong, P. F., Maassen, B., & Van Der Leij, A. (2014). The effect of parents' literacy skills and children's preliteracy skills on the risk of dyslexia. *Journal of Abnormal Child Psychology*, 42(7), 1187–1200. https://doi.org/10.1007/s10802-014-9858-9
- 31. Wolf, M., & Bowers, P. G. (1999). The double-deficit hypothesis for the developmental dyslexias. *Journal of Educational Psychology*, *91*(3), 415–438. https://doi.org/10.1037/0022-0663.91.3.415