Introduction to Special Topic: Serving Children With Disabilities Within Multitiered Systems of Support

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Since the conception of the Education for All Handicapped Children Act in 1975, there has been substantial progress regarding the education of learners with disabilities. Nevertheless, significant challenges remain for addressing the diverse needs of these learners and improving in- and out-of-school outcomes. This special topic focuses on an approach that holds promise for the delivery of interventions that are aligned to learners’ social, emotional, behavioral, and learning needs—multitiered systems of support (MTSS). The four articles that comprise the special topic highlight the need for actionable information for schools implementing MTSS, early intervention for children with or at risk for disabilities, and an enhanced focus on intensive interventions. This introduction to the special topic provides information on the meeting that motivated the special topic, a summary of each of the four articles, and paths forward for early and sustained intervention for learners with or at risk for disabilities.

Keywords: multitiered systems of support, learners with disabilities, prevention, intervention

Understanding and embracing diversity in education necessitates systematic and systemic approaches to ensure high standards and expectations for all learners. This special topic focuses on exploring inclusive practices within one such systemic educational approach designed to address students' social, emotional, behavioral, and learning needs—multitiered systems of support (MTSS). The roots of this systemic approach in the U.S. education system stem from the intersection of public health and education prevention-based models with the goal of improving outcomes for all learners. Specifically, MTSS is a team-based framework characterized by universal screening, multiple tiers of intervention, progress monitoring, and data-based decision making (e.g., Batsche, 2014; McIntosh & Goodman, 2016). MTSS typically includes the following three tiers of increasingly intensive intervention: Tier I universal supports for all students, Tier II targeted supports for students who may need additional intervention, and Tier III intensive support for students who need additional and more individualized intervention.

The motivation for this special topic on MTSS grew from a technical working group (TWG) meeting held by the U.S. Department of Education’s Office of Special Education Programs and National Center for Special Education Research at the Institute of Education Sciences in collaboration with the Eunice Kennedy Shriver National Institute of Child Health and Human Development and the Office of Behavioral and Social Sciences Research, U.S. National Institutes of Health. The purpose of the meeting was to reflect on the prior successes and remaining challenges in improving the education of and outcomes for students with disabilities and highlight the need for continued emphasis on the original and evolving goals of the Education for All Handicapped Children Act (EAHCA; 1975). The EAHCA required public schools that accepted U.S. federal funds to provide equal access to education for individuals with disabilities. Specifically, it required schools to evaluate individuals with disabilities and develop educational plans, in concert with families, with a broad goal of ensuring equal access to quality education services to learners with disabilities. These goals live on today through the Individuals with Disabilities Education Act (IDEA; 2004).

In the spirit of EAHCA and IDEA, the TWG meeting framed disabilities broadly to be inclusive of learners with or at risk for receiving a disability classification under IDEA. The meeting emphasized connecting research to practice and practice to research to improve education and broader life outcomes for learners with disabilities. The specific topic areas covered emphasized a candid reflection on the impact of research and practice on screening, identification and classification, and intervention approaches for learners with disabilities, including whether our current instructional...
models provide opportunities to significantly improve learner outcomes. The meeting also emphasized the role of families as well as the various education and health providers that interact with learners and families and the potential value of closer communication, sharing of ideas, and coordination across providers and families. Although the full scope of the meeting is beyond this special topic, we focus on some themes that align with the goals of the meeting and connect the articles submitted as part of this topic. Specifically, the need for:

- practical, actionable information for schools implementing MTSS;
- early intervention and prevention for learners with or at risk for disabilities;
- research on more intensive interventions (e.g., interventions aligned with Tier II and Tier III).

**Articles in This Special Topic**

This special topic is composed of four articles, including two conceptual pieces focused on MTSS, how it works for students with disabilities, and how it can be leveraged to better meet the needs of these students. The other two articles are empirical studies focused on Tier II interventions that can be incorporated into an MTSS framework to improve outcomes for students with or at risk for disabilities.

The first article by Lewis, McIntosh, Simonsen, Mitchell, and Hatton (2017) describes the use of schoolwide positive behavior support (SWPBS) for learners with emotional/behavioral disorders (EBD) and its evidence for supporting these children and youth. As context, compared to typically developing learners and learners with other disabilities, children and youth with EBD experience some of the poorest in-school and post-school outcomes, including high rates of school failure, suspension, and dropout (e.g., Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). These negative outcomes represent a significant cost to society and may lead to additional problems later in life (e.g., Christle, Jolivette, & Nelson, 2005). To improve proximal and distal outcomes for these learners, the authors argue that there is a critical need for the implementation of schoolwide systems that support both the prevention and treatment of problem behavior. SWPBS is one such system that is based on the principles of MTSS in that it provides multiple tiers of evidence-based supports and promotes the use of data for decision making. SWPBS is a multiterritorial framework that aims to improve school climate and learners’ social and behavioral outcomes by providing a continuum of supports ranging from universal practices to support all learners (Tier I) to increasingly intensive supports for those who are not responsive to universal prevention efforts (Tiers II and III). Prior research on SWPBS has shown strong support for the impact of universal-level supports on positive schoolwide and learner outcomes (Lewis, Mitchell, Bruntmeyer, & Sugai, 2016). Although evidence of the positive effects of receiving a continuum of supports and of SWPBS on children and youth with EBD specifically is emerging, it is still limited. Based on their review of the literature, Lewis et al. (2017) highlight several future directions and implications for research, practice, and policy, including the need for additional research on the impact of Tier II and III supports for learners with or at risk for disabilities and additional support for the implementation of SWPBS at the district, state, and federal levels.

The second article, by Morningstar, Lombardi, and Test (2018), discusses the implementation of MTSS within secondary schools and proposes expanding the framework to incorporate evidence-based practices for promoting college and career readiness. Like Lewis et al. (2017), the authors review the evidence for MTSS approaches; however, they specifically focus on response to intervention (RTI) and positive behavior interventions and supports (PBIS) and their evidence when implemented in secondary schools. MTSS approaches such as RTI and PBIS are increasingly being adopted by secondary schools, and there is an emergent, albeit limited, literature showing their positive impacts on educational outcomes (e.g., Freeman et al., 2016). Nevertheless, researchers have emphasized that careful consideration should be given to the school context and learners’ developmental level when implementing MTSS in secondary schools. Morningstar and colleagues advocate for aligning college and career readiness and transition practices and incorporating these practices into existing MTSS to better meet the needs of all secondary students, including those with disabilities. Morningstar et al. describe a framework for college and career readiness for youth with disabilities that includes the following six academic and nonacademic elements: (a) academic engagement, (b) mindsets, (c) learning processes, (d) critical thinking, (e) interpersonal engagement, and (f) transition competencies. The authors provide practical examples of how these elements can be addressed across multiple tiers of MTSS. For example, to promote mindsets, all learners could complete individual learning plans as part of Tier I universal-level supports, learners with more intensive support needs or those at risk of school failure could receive more targeted Tier II supports through an evidence-based intervention (e.g., Check-In Check-Out; Crone, Hawken, & Horner, 2010), and youth with disabilities who receive special education could receive an evidence-based intensive intervention to promote positive mindsets (e.g., self-directed individualized education program [IEP] intervention). Overall, Morningstar and colleagues suggest that the blending of college and career readiness into existing MTSS efforts would improve school engagement for all secondary students, including those with disabilities, and prepare them for life outside of school.
The next two empirical articles, by Clarke et al. (2017) and Conroy, Sutherland, Algina, Werch, and Ladwig (2018), address two critical needs identified in the article by Lewis and colleagues (2017) for increased attention to prevention and early intervention and more research on the impact of Tier II targeted interventions for learners with or at risk for disabilities. Clarke and colleagues highlight results from a randomized controlled trial investigating the efficacy of ROOTS, a Tier II whole number intervention for kindergartners with or at risk for mathematics difficulties. Previous studies have established the efficacy of ROOTS for improving math outcomes (Clarke, Doabler, Smolkowski, Baker, et al., 2016; Clarke, Doabler, Smolkowski, Kurtz Nelson, et al., 2016). The purpose of this study was to extend this line of work by replicating the overall impact of the intervention as well as investigating the differential impact between ROOTS implemented in larger versus smaller groups. ROOTS utilizes explicit instruction strategies to teach whole number concepts and skills and includes a professional development component comprised of workshops and coaching to support intervention implementation. Findings from the efficacy study indicated that overall, ROOTS showed significant positive impacts on three out of six mathematics outcomes. Although there were some differences in the practice opportunities between the two treatment groups (i.e., the small group included a higher rate of individual practice opportunities, and the large group included more group practice opportunities), there were no significant differences between the two treatment groups with respect to achievement outcomes. This study is among the few (e.g., Doabler et al., 2017) that have systematically investigated intervention delivery options with the goal of better meeting the needs of children and the resource-limited settings in which they are educated. Findings from this study have important implications for the way that schools allocate resources in that the lack of significant differences between different group sizes suggests that schools can serve significantly more children without compromising the intervention’s effectiveness.

Relatively, the fourth article by Conroy et al. (2018) extends previous research on an efficacious Tier II intervention to address research questions that are relevant and practical for educational settings. More specifically, the article reports results from a randomized controlled trial to evaluate whether a Tier II prevention program, Behavioral, Emotional, Social Training: Competent Learners Achieving School Success (BEST in CLASS), produces clinically meaningful impacts for children at risk for EBD. BEST in CLASS is designed to reduce problem behaviors and improve social skills for young children at risk for EBD by providing teachers with professional development training and practice-based coaching to support their use of instructional practices that are effective for improving interactions and decreasing problem behaviors during typical classroom activities. This study expands on previous work demonstrating the efficacy of BEST in CLASS in decreasing problem behaviors and increasing social skills (Sutherland et al., 2018) by examining the degree to which the program results in clinically meaningful improvements in these outcomes for young children at risk for EBD. In other words, the study investigated whether children who received the intervention demonstrated healthier social, emotional, and behavioral skills compared with children in the comparison group. Following the intervention, there were significantly fewer children in the BEST in CLASS condition who scored in the clinical or borderline range on measures of problem behavior relative to children in the business-as-usual comparison condition. Thus, findings suggest that BEST in CLASS not only results in statistically significant outcomes but also clinically meaningful outcomes for children at risk for EBD. In terms of resource allocation, these findings suggest that targeted prevention programming for young children at risk may be a good investment as it could reduce the need for more resource-intensive interventions in the future.

Discussion

The individual papers and the broader special topic underscore some of the key themes generated during the TWG meeting by highlighting areas of continued or new need and areas of progress for learners with disabilities. Specifically, they highlight the need for practical, actionable information for schools implementing MTSS, particularly in secondary settings; the potential value and promise of early intervention and preventive services for children at risk for disabilities; and the need for an enhanced focus on intensive interventions (see also Fuchs, Fuchs, & Vaughn, 2014, for a discussion of intensive interventions). In the following paragraphs, we highlight some of the major themes that came out of the TWG meeting with the goal of aligning with and expanding the emphasis of the papers in this topic.

A consistent theme of the meeting and the papers by Clarke et al. (2017), Conroy et al. (2018), and Lewis et al. (2017) is the need for early and sustained intervention and service delivery for learners with or at risk for disabilities. A core component of this type of delivery model involves a treat then test approach. Such an approach aligns with prevention-based systems such as MTSS and involves systematic screening for the purpose of identifying individuals at risk for a disability, intervening early, and developing sustained intervention and service delivery options, particularly for learners with disabilities who may need ongoing services to support success in school and beyond. This approach necessitates inclusion of strong universal supports for all learners to reduce the incidence and/or severity of disability when possible and the unnecessary reliance on more intensive supports such as those provided under higher tiers of an MTSS framework. The goal would be to benefit from greater
plasticity and responsiveness to early intervention efforts in relation to long-term health and education outcomes (e.g., Lovett et al., 2017) but not at the expense of providing more intensive services early on to children with particularly high-risk profiles. In other words, this focus on early intervention is comparable to primary prevention in public health models where the aim is to prevent disease or injury and promote healthy/safe behaviors (e.g., Durlak & Wells, 1997). In the education context, raising the quality of early intervention or primary prevention efforts should benefit all learners, including those with or at risk for disability, and potentially free up resources for those in need of more intensive services. As demonstrated in the Clarke et al. (2017) article, evaluations of interventions within tiered models should explore the most efficient ways to improve learner outcomes while not putting unnecessary strain on schools’ limited resources.

To be most effective, this primary prevention framework to improved education and health would need to cut across service delivery systems (e.g., Miller, Esposito, & McCardle, 2011) and consider that what constitutes early intervention can vary by disability and outcome. For example, for learners with autism spectrum disorder, early intervention and service delivery could involve early and enhanced screening beginning prior to 1 year of age (e.g., Davidovitch, Stein, Koren, & Friedman, 2018; Samango-Sprouse et al., 2015) and during regular well-child visits through at least 30 months (Plauché Johnson, Myers, & the Council on Children with Disabilities, 2007). In addition, early intervention would also involve an early diagnosis (i.e., within the first 2 to 3 years of life) and a referral for intervention services by a health care provider. For other conditions like learning disabilities that are identified somewhat later in childhood, early intervention could mean identifying children who are likely to struggle in the acquisition of reading, writing, or math skills and delivering high-quality, explicit instruction to these children while monitoring their progress and potentially moving toward more intensive intervention and referral for formal evaluation (see Fletcher, Lyon, Fuchs, & Barnes, 2019). This type of framework relies on the linking of early screening, assessment, and intervention services and necessitates collaboration across education and public health systems so that services are complementary and providers can collaboratively work to enhance student outcomes.

For such efforts to succeed in practice, there needs to be concerted attention to define what is meant by risk in the context of academic, social, and behavioral outcomes and for specific disabilities. Thinking broadly across disability categories, defining and determining risk will likely involve the confluence of behavioral, neurobiological, and/or genetic indicators and consideration of multidimensional data in informing the degree of risk specific to a disability or combination of disabilities in relation to an outcome (e.g., reading). Part of the challenge of defining risk is our limited understanding of the developmental course of specific behaviors or outcomes, what constitutes a meaningful deviation from this trajectory, and the underlying causes of this deviation. An enhanced understanding of risk factors could support better and earlier intervention to ameliorate difficulties and reduce the educational and broader health impact of disabilities.

To improve outcomes for individuals with disabilities, the field will need to rethink the intensity, complexity, comprehensiveness, and level of individualization of current intervention efforts (e.g., Fuchs, Fuchs, & Compton, 2010; Vaughn, Denton, & Fletcher, 2010). Many learners with disabilities require ongoing services and interventions, and their needs are as variable as their strengths and challenges. A systemic and systematic approach to service delivery, such as MTSS, can and should accommodate the different needs of learners with disabilities and how they can change over time with the course of development. For instance, as Morningstar and colleagues (2018) suggest, tiered systems at the secondary level should address learners’ varied needs regarding the transition to independent living, postsecondary education, and/or workplace opportunities. It is essential to reevaluate the level of intensity of interventions particularly for individuals that are minimally responsive to evidence-based interventions and for older children and youth who are already well below expected performance levels and closer to exiting the k–12 education system. More comprehensive, coordinated, and wraparound services that cut across providers could facilitate enhanced outcomes for learners and provide services that align with individuals’ multifaceted needs. This requires coordination among professionals providing intervention for learners with disabilities and in some cases would necessitate cutting across service venues (e.g., health and education). Finally, additional data from research and practice settings should inform the balance between standardized intervention protocols and more individualized protocols to ensure optimal improvement for all.

Sustaining Efforts

Despite successes with early intervention, many individuals need sustained intervention over the course of schooling and beyond. For learners with certain disabilities, long-term intervention can enhance education, health, and social outcomes and falls in the realm of standard service delivery protocols. In other cases, intervention efforts for older learners are either not present or delivered with low intensity and/or of insufficient duration to significantly enhance performance and begin to close the achievement gap. Previously, we discussed the need to revisit the intensity, complexity, comprehensiveness, and individualization of intervention efforts; critical to this effort is sustaining these efforts over time and monitoring performance to ensure interventions are having
the expected impact. To do this, the education system needs to systematically integrate screening, progress monitoring, and intervention in an iterative model over the course of a learner’s tenure in the education system. There is a concomitant need to link these sustained services and develop appropriate systems and support structures to prepare learners for independent living and postsecondary education and workplace opportunities (see also National Research Council, 2012). Models need to be flexible enough to permit nontraditional pathways to independence and postsecondary experiences and facilitate access to resources for all learners. Development of enhanced technology tools are needed to allow learners with disabilities access to a fuller range of education opportunities while also providing opportunities for life-long learning among individuals with disabilities who face barriers to in-person educational opportunities for reasons specifically related to their disabilities and/or challenges of balancing life, work, and education.

Final Summary

The TWG meeting and the set of papers here highlight the need to think holistically about service delivery for learners with (and without) disabilities. For learners with disabilities, the complexity increases because this can involve multiple service providers split across venues and extended over time. Prevention-based models such as MTSS hold promise for the delivery of high-quality interventions aligned to learners’ needs with ongoing progress monitoring to inform changes in practice over time and promote student achievement (e.g., Algozzine et al., 2012; Stewart, Benner, Martella, & Marchand-Martella, 2007). This type of coordinated, multietiered prevention framework that connects learners with disabilities and their families to public health, education, labor, and independent living activities remains an area of significant need and promise.

Authors’ Note

The opinions and assertions presented in this article are those of the authors and do not purport to represent those of the Eunice Kennedy Shriver National Institute of Child Health and Human Development, U.S. National Institutes of Health, U.S. Department of Health and Human Services, or the Institute of Education Sciences, Office of Elementary and Secondary Education and Office of Special Education Programs, U.S. Department of Education.

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