## Article Analysis

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**Introduction**

Neurodevelopmental disabilities, such as attention deficit hyperactivity disorder (ADHD) and specific learning disorder (SLD), pose significant challenges to children and adolescents, impacting their cognitive functioning, academic performance, and psychosocial well-being. Understanding the unique characteristics and cognitive profiles of individuals with these disorders is crucial for developing effective interventions and support systems. In this analysis, we will delve into the article "Intellectual functioning and executive functions in children and adolescents with ADHD and SLD" by Faedda et al. (2019), which explores the similarities and differences between ADHD and SLD by examining executive and intellectual profiles. By critically evaluating the study design, sample size, data analysis methods, and strength of the evidence, this paper aims to gain insights into the implications of this research for clinical practice, the importance of specialized knowledge in neurodevelopmental disabilities, and potential shifts in perspective regarding the treatment of ADHD and SLD. This analysis highlights the significance of specialized care and tailored interventions for individuals with neurodevelopmental disabilities, ultimately contributing to improved outcomes and enhanced quality of life for affected individuals. Furthermore, an analysis of the article concurs with Wolraich et al. (2019) study as one relevant National Guideline or Best Practice Recommendation for children and adolescents. This guideline emphasizes the importance of comprehensive evaluations that consider multiple domains, including cognitive and executive functions, in assessing and managing ADHD. It highlights the need to assess for coexisting conditions such as specific learning disorders (SLD) and recommends tailored interventions based on individual strengths and weaknesses. The study conducted by Faedda et al. aligns with this guideline by analyzing the executive and intellectual profiles of children and adolescents with ADHD and SLD, contributing to the evidence base for personalized interventions and supporting the implementation of best practices outlined by the AAP.

**Summary**

The article by Faedda et al. (2019) is a quantitative study that considers the lacking study of similarities and differences between attention deficit hyperactivity disorder (ADHD) and specific learning disorder (SLD) by analyzing the executive and intellectual profiles among children and adolescents. ADHD is a neurodevelopmental disability marked by the persistence of a pattern of inattention and hyperactivity-impulsivity that affects development and psychosocial functioning negatively. On the other hand, SLD is a neurodevelopmental disorder linked to biology that limits school skills like writing, reading, and making calculations. The authors note the research gap in analyzing the neuropsychological profiles of children with ADHD and SLD, comparing executive and intellectual functions, even though numerous studies highlight neuropsychological deficits over multiple domains. Investigating the differences and similarities between ADHD and SLD groups helps outline interventions that are more specific to the individual child's characteristics.

The study sample included 72 children and adolescents aged between 5.1 and 15.4 years, with one group diagnosed with ADHD (36) while the other was diagnosed with SLD (36). Intellectual ability was measured using the WISC-IV, while executive functioning was measured using the NEPSY-II. Out of the six cognitive domains of NEPSY-II, the research utilized two: attention and executive functioning and memory and learning. A series of multivariate covariance analyses and a single covariance analysis, using age and gender as covariates, were used to analyze the collected data.

The study results show that the two groups were balanced by age and ethnicity, while the ADHD group had more males than the SLD group. Only 2.8 of the study population was from a different ethnic group. The results also reveal a significantly higher score for the SLD group on the NEPSY-II in various domain like inhibition and cognitive flexibility. The ANCOVA also revealed differences in the FSIQ of WISC-IV, where the SLD group scored higher than the ADHD group. The study findings also reveal that children with ADHD are more impaired among the two groups. Ultimately, an educational and clinical intervention focused on specific executive and intellectual functioning of children and teenagers is enabled by the identification of strengths and weaknesses of the population with SLD and ADHD.

**Rate and grade the article**

The article by Faedda et al. (2019) can be evaluated using the Johns Hopkins Nursing Evidence-Based Practice (EBP) Guidelines. The study utilized a quantitative design with a sample size of 72 children and adolescents, which meets the criteria for level III evidence. However, based on the information provided in the article, several factors suggest that it aligns with Level III evidence. The study used a non-experimental design to compare the executive and intellectual profiles of children with ADHD and SLD. Non-experimental studies, such as comparative descriptive or case-control studies, typically fall under Level III evidence. The study also included a sample of 72 children and adolescents, 36 diagnosed with ADHD and 36 diagnosed with SLD. While sample size alone does not determine the level of evidence, smaller sample sizes are more common in Level III studies than larger, randomized controlled trials (RCTs) often seen in Level I and II studies. The study further employed MANCOVA)and ANCOVA to analyze the collected data. These statistical methods are commonly used in Level III studies. The study also aimed to compare the performance of the ADHD and SLD groups on various measures of executive.

**Application**

Based on the evidence presented in the article by Faedda et al. (2019) and considering the Johns Hopkins Nursing Evidence-Based Practice Guidelines, the rating for incorporating the findings into practice would be "strongly recommended.” Also, the grade assigned to the article would be above average. An explanation for the above assignment is that the study provides valuable insights into the specific executive and intellectual profiles of children and adolescents with ADHD and SLD. The findings indicate that ADHD children exhibit more impairments compared to SLD children. This information is highly relevant to psychiatric mental health nurse practitioners (PMHNPs) who work with children and adolescents with ADHD and SLD. One way the Psychiatric Mental Health Nurse Practitioner can incorporate the findings mentioned in the article into practice is by using the information on specific cognitive domains affected by ADHD and SLD to guide their **assessment process**. They can assess executive functions, attention, memory, and learning abilities more comprehensively, focusing on the areas that are particularly affected in the study. Understanding the differential cognitive profiles between ADHD and SLD can also assist PMHNPs in developing individualized treatment plans. Interventions can be tailored to target the specific cognitive weaknesses identified in each child or adolescent. For example, interventions that promote cognitive flexibility, working memory, and inhibition skills may be emphasized for ADHD patients. In contrast, interventions focused on reading, writing, and calculation skills may be prioritized for SLD patients. Additionally, PMHNPs can collaborate with educators to ensure appropriate accommodations and strategies are implemented in educational settings. Sharing the findings with teachers can help them understand the cognitive strengths and weaknesses of students with ADHD or SLD and enable them to implement targeted educational interventions. Furthermore, PMHNPs can educate families about the specific cognitive challenges associated with ADHD and SLD. This knowledge can empower parents and caregivers to provide appropriate support and advocate for their child's needs at school and home. By integrating the findings from this study into their practice, PMHNPs can enhance their assessment, treatment planning, and collaboration with other professionals involved in the care of children and adolescents with ADHD and SLD.

**Perspective**

The article by Faedda et al. (2019) has changed my perspective on the differences in neurodevelopmental disorders by highlighting the importance of considering the specific cognitive profiles of children and adolescents with ADHD and SLD. Treatments for ADHD and SLD may have followed a standardized approach without considering each individual's unique cognitive strengths and weaknesses in the past. However, this study emphasizes the need for an individualized treatment approach, concurring with Hauser et al. (2018). Recognizing that ADHD children may struggle more with cognitive inhibition, cognitive flexibility, and working memory. In contrast, SLD children may have reading, writing, and calculation difficulties. Practitioners can tailor interventions to address these specific areas of impairment. This perspective shift can lead to more targeted and effective treatment plans. The study's findings demonstrate that ADHD and SLD affect academic performance, executive functions, and intellectual functioning. This broader understanding of the impact of these disorders has encouraged a multidimensional treatment approach. Rather than focusing solely on academic remediation, practitioners may now consider interventions that target executive functions, such as working memory training or cognitive-behavioural interventions to improve cognitive flexibility and inhibition. Treatment outcomes may be improved by addressing multiple domains affected by these disorders. The article also emphasizes the importance of collaboration among healthcare professionals, educators, and families in addressing the challenges faced by children and adolescents with ADHD and SLD. The study's findings have encouraged the importance of closely working with educators to implement strategies and accommodations that address the specific cognitive deficits identified in each child. Additionally, involving families in treatment planning and providing education about the cognitive profiles associated with ADHD and SLD have proved useful in helping them better support their child's needs at home and advocate for appropriate interventions in educational settings.

**Discussion**

After discussing the article with one of my colleagues, their impression stresses the importance of specializing in neurodevelopmental disabilities and the need for practitioners with expertise in this area. My colleague stressed that the study's findings provide valuable insights into the specific cognitive profiles of children and adolescents with ADHD and SLD, demonstrating that these disorders have distinct neuropsychological characteristics. As a result of my colleague’s impression, an understanding of the unique challenges of individual conditions is attained. The article emphasizes that ADHD and SLD are not homogenous conditions but encompass a range of cognitive impairments. By specializing in neurodevelopmental disabilities, my colleagues can gain a deeper understanding of the unique challenges faced by individuals with ADHD and SLD. This specialized knowledge allows for more accurate assessments and tailored interventions. My colleague's impression underscores the significance of tailoring interventions to the specific cognitive impairments associated with ADHD and SLD. This perception implies that a one-size-fits-all approach may not be effective and that practitioners need specialized knowledge to develop and implement appropriate interventions. This perspective shift emphasizes the need for practitioners with a deep understanding of neurodevelopmental disabilities who can apply evidence-based strategies and techniques that address the unique challenges faced by those with ADHD and SLD. Additionally, my colleague’s impression also stresses the vitality of collaboration among healthcare professionals, educators, and families. It indicates that addressing the needs of individuals with ADHD and SLD requires a comprehensive and interdisciplinary approach. This perspective emphasizes the value of specialized practitioners working with other professionals to provide holistic care. Ultimately, this impression of the article has shifted my colleague’s practice to focus on the importance of specializing in neurodevelopmental disabilities. It emphasizes the complexity of these disorders, the need for specialized training and expertise, and the value of interdisciplinary collaboration. This perspective shift highlights the importance of having specialized practitioners who can provide tailored interventions and comprehensive care to individuals with ADHD and SLD, ultimately improving outcomes and enhancing the quality of life for these individuals and their families.

**References**

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