Reading is a multifaceted skillset that has the potential to profoundly impact a child's academic performance and achievement. Mastery of reading skills is often an area of difficulty for children during their academic journey, particularly for children with Attention Deficit/Hyperactivity Disorder (ADHD), Specific Learning Disorder with Impairment in Reading (SLD-R), or children with a comorbid diagnosis of both ADHD and SLD-R. ADHD is characterized by executive functioning and impulse control deficits, as well as inattention and impulsivity. Among the academic struggles experienced by children with ADHD are challenges with word reading, decoding, or reading comprehension. Similarly, children with SLD-R frequently encounter difficulties in the development of appropriate reading skills. SLD-R incorporates dysfunctions in basic visual and auditory processes that result in difficulties with decoding and spelling words. There have been limited empirical studies investigating the efficacy of interventions to improve the reading ability of children with both ADHD and SLD-R. Research studies that have focused on reading interventions for children from this population have predominantly included the use of medication treatments with stimulants (e.g., methylphenidate) and non-stimulants (e.g., atomoxetine). The aim of this review paper is to present and integrate findings from empirical studies on successful medication treatments for children with comorbid ADHD and SLD-R. Furthermore, this paper will extend findings from empirically successful medication treatments to provide directions for future research.