The Effects of Stimulant Medication and Training on Sports Competence Among Children With ADHD.

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Abstract

The current study examined the relative efficacy of behavioural sports training, medication, and their combination in improving sports competence among youth with attention-deficit/hyperactivity disorder (ADHD). Participants were 73 youth (74% male; 81% Hispanic) between the ages of 5 and 12 diagnosed with Diagnostic and Statistical Manual of Mental Disorders (4th ed.) ADHD enrolled in a Summer Treatment Program (STP). The study consisted of a 2 (medication: methylphenidate, placebo) × 2 (sports training: instruction and practice, recreational play) between-groups design and was conducted over a 3-week period during the STP. Sports training was conducted with a novel sport, badminton, to limit previous sports knowledge and to differentiate it from concurrent sports training that occurred within the STP. Objective and subjective measures of sports skills, knowledge, and behaviour were collected. Results indicated that, relative to recreational play, brief sports training improved observed and counselor-rated measures of sports competence including sports skills, knowledge, game awareness, effort, frustration, and enjoyment. During sports training, medication incrementally improved children's observed rule following behaviour and counselor-rated sportsmanship relative to placebo. In the absence of sports training, medication improved behaviour, effort, and sports knowledge. Training in sports skills and rules produced the largest magnitude effects on sports-related outcomes. Therefore, skills training, rather than medication alone, should be used in conjunction with behavioural intervention to teach sports to youth with ADHD. It is recommended that medication is used only as an adjunct to highly structured sports skills training for youth who display high rates of negative behaviour during sports activities.