Use of cognitive behavioral therapy and token economy to alleviate dysfunctional behavior in children with attention-deficit hyperactivity disorder

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Medication has proved highly efficacious as a means of alleviating general symptoms of attention-deficit hyperactivity disorder (ADHD). However, many patients remain functionally impaired by inappropriate behavior. The present study analyzed the use of cognitive behavioral therapy (CBT) with the Token Economy (TE) technique to alleviate problem behavior for 25 participants with ADHD, all children (19 boys, mean age 10.11) on long-term methylphenidate medication, who were given 20 CBT sessions with 10 weeks of TE introduced as of session 5. Their ten most acute problem behaviors were selected and written records kept. On weekdays, parents recorded each inappropriate behavior and provided a suitable model for their actions. At weekly sessions, problem behaviors were counted and incident-free participants rewarded with a token. To analyze improvement (less frequent problem behavior), a list of 11 behavioral categories was rated: inattention, impulsivity, hyperactivity, disorganization, disobeying rules and routines, poor self-care, verbal/physical aggression, low frustration tolerance, compulsive behavior, antisocial behavior, lacking in initiative and distraction. Two CBT specialists categorized behaviors and an ADHD specialist ruled on discrepancies. Statistical analyses used were Generalized Estimating Equations with Poisson distribution and autoregressive order correlation structure. In the course of the sessions, problematic behaviors decreased significantly in 7 categories: impulsiveness, hyperactivity, disorganization, disobeying rules and routine, poor self-care, low frustration tolerance, compulsive behaviors, and antisocial behaviors. Caregiver attitudes to children’s inappropriate behavior were discussed and reshaped. As functional improvement was observed on applying TE for 10 weeks, this type of intervention may be useful as an auxiliary strategy combined with medication.