Habit Reversal Training to Treat Tics in a Young Boy Diagnosed with Tourette’s Syndrome

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Method

Participant
Kraig was a 9-year-old boy diagnosed with Asperger’s syndrome, Tourette’s syndrome, Attention Deficit Hyperactivity Disorder and Anxiety disorder. Kraig received approximately 3.5 hours of Applied Behavior Analysis (ABA) intervention per week.

Setting & Materials
The study was conducted in a small classroom at the child’s school. Materials included data sheets, a timer, and candy.

Procedure
An experimental single-subject multiple baseline design across tics was implemented.

Baseline
Rate per minute of individual tics was recorded.

Treatment (Awareness Training)
The targeted tic(s) were described by the therapist and participant followed by the simulation and identification of the target tic(s). Kraig was instructed to identify each occurrence of the targeted tic(s) throughout the session; identifying the tic occurrence resulted in the therapist providing Kraig with reinforcement.

Reinforcement included one or more of the following: verbal praise, high-five, or candy. If a targeted tic occurred and Kraig failed to label the tic, the therapist labeled the tic and asked Kraig if he detected the tic. Acknowledging the tic occurrence resulted in the therapist providing Kraig with reinforcement.

Inter-observer Agreement and Treatment Integrity
Inter-observer agreement was conducted at least 46.7% of the sessions and was 82.8%. Treatment integrity was conducted at least 46.7% of the sessions and was 100%.

Results and Discussion

Figure 1 depicts a multiple baseline design displaying baseline, treatment (awareness training), and reversal to baseline conditions across target tic (eye, facial, mouth, and shoulder) rate per minute.

Figure 2 depicts a combination of eye, facial, mouth, and shoulder tic rate per minute across baseline, treatment (awareness training), and reversal to baseline conditions.

The results of the current study indicate that awareness training is sufficient to decrease tic rate per minute. Baseline data show an increase in tic rate per minute; however, upon implementation of treatment (awareness training), tic rate per minute decreases to zero or near zero levels. Reversal back to baseline shows an increase in tic rate per minute indicating that awareness training does not maintain over time when treatment is withdrawn.

A limitation of the current study is that sessions were only conducted two times per week.

Future research could compare the maintenance of tic rate per minute for tics that receive awareness training to tics that teach a competing response in addition to awareness training.

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