BEHAVIORAL TREATMENT OF SEVERE TOURETTE’S DISORDER: A CASE STUDY

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Introduction

RJ is a 10-year-old, Caucasian male who presented to clinic with severe motor and verbal tics. The tics occur throughout the day and his parents have observed motor tics while RJ is sleeping. RJ’s parents are divorced and he lives primarily with his mother and younger brother. The visitation patterns with his father consist of 4 days with his mother, 3 with his father then 3 days with his mother and 4 days with his father. RJ’s tics have not impacted his school functioning. School reports indicate he gets good grades in all subjects. In addition, RJ reports that he is not teased about his tics by his peers. Past research has indicated pharmacological treatments, especially neuroleptics, have been effective in reducing the frequency and intensity of tics (Moore, 1999). However, RJ’s primary care physician prescribed ½ of a .1mg Diphenhydramine at bedtime to help alleviate difficulties associated with his motor and vocal tics.

Behavioral interventions such as massed negative practices (Azrin & Paterson, 1988), contingency management (Varni, Boyd, & Cataldo, 1978), relaxation training (Evers & Van de Wetering, 1994), and habit reversal (Azrin & Nunn, 1973) have also been effective in treating tics. Furthermore, Evers and Van de Wetering (1994) taught two clients to be aware of muscle tension prior to tics and how to release the tension with one client reporting elimination of the motor tic and the other reporting a significant decrease. Azrin and Paterson (1988) found that 9 months post-treatment, complete habit reversal techniques yielded a 95-99% reduction in motor and vocal tics in the clinic and a 64-87% reduction outside the clinic.

The purpose of the present study was to examine behavioral interventions that may assist RJ in reducing his motor and vocal tics. Specifically, differential reinforcement and habit reversal strategies were evaluated to determine if the combination of strategies would help RJ gain volitional control over his motor and vocal tics.

Methods

During a clinical interview, an informal baseline frequency of the motor and vocal tics was gathered. At intake, RJ exhibited 10-15 motor or vocal tics per minute. A treatment assessment was completed to determine the impact of several conditions on RJ’s motor and vocal tics. Data were collected via direct observation through a one-way mirror using a 10-second partial interval recording system. The following conditions were assessed during 5 minute observations:

- **Baseline**: RJ was left alone in a room and asked to wait for a staff person to return.
- **Self-Control**: RJ was asked to do whatever he could to control his tics. A video camera was placed in the room to count his tics.
- **Differential Reinforcement**: RJ was informed that he would earn a point for each 10-second period (DRO 10") he was able to control his tics. The points were administered via an audible click. He was able to redeem the points for a small reward at the end of the session. Tics were counted with a video camera.
- **Parent-Attend**: RJ’s father sat in the room with him and talked to him every time he engaged in a motor or vocal tic. The video camera monitored the frequency of his tics.
- **Dro produced marked reductions in vocal tics but not motor tics.**
- **Noncontingent and contingent use of a competing response did not enhance the effects of the DRO.**
- **A vocal competing response may have been more effective.**
- **Family issues (e.g., frequent moving, parental conflict) may have limited treatment success.**
- **Medication intervention may be an important adjunct to behavioral intervention in severe cases.**

**Discussion**