



Behavioral Interventions in the Management of Tics Disorder in Junior High School Students

KEYWORDS

Behavioral interventions – Tics – junior high school students

Dr. A. Gayathri

Department of Psychology,
S.V.University, Tirupati-2

Dr. A. Hemalatha

Department of Psychology,
S.V.University, Tirupati-2

Prof. D. Jamuna

Department of Psychology,
S.V.University, Tirupati-2

ABSTRACT *The present study is an attempt to examine the effect of behavioral interventions in the management of habit disorder viz., Tics. Habit Disorders Schedule for tics was used on 180 junior high school students to assess the nature and intensity of Tics. A select sample (N=48) from the main sample (N=180) with moderate levels of Tics are subjected to interventions with an objective of reducing the intensity of Tics in junior high school students. The interventions through a pre and post test design were found to be effective.*

Introduction:

Attitude and action are intertwined in the production of undesirable behavior. Although most therapists consider negative attitudes to be responsible for unwanted actions, the reverse relationship also holds that unworthy actions cause distressed feelings (Anker, 1961). Parents and teachers also can train the child to modify undesirable behavior by utilizing reward to strengthen wanted actions and punishment to weaken unwanted ones. They can apply known learning principles of conditioning, extinction, generalization, practice, discrimination, and social imitation to the instruction of the child in acceptable behavior (Sears, 1944). Tics, a set of self focused repetitive behaviors (eg: eye blinking, dry coughing, clearing the throat, sniffing, head banging and rocking, hair pulling) that cause physical distress (or) can result in a problem if left untreated for extending interventions.

Trichotillomania, a behavioral problem, forms the part of tics, which is often referred to as a habit disorder, but it is important to consider the cognitive and emotional components of the behavior. Tourette syndrome (TS) is characterized by chronic motor and vocal tics. Habit reversal therapy (HR) is a behavioral treatment for tics which has received recent empirical support. Deckersbach, Rauch, Buhlmann, Wilhelm (2006) compared the efficacy of HRT in reducing tics, improving life-satisfaction and psychosocial functioning in comparison with supportive psychotherapy (SP) in outpatients with TS. In addition, investigations carried out to see whether impairments in response to inhibition in patients with TS predict response to HR treatment which specifically aims to inhibit tics. Thirty adult outpatients with DSM-IV TS were randomized to 14 individual sessions of HR or SP. HR but not SP reduced tic severity over the course of the treatment. Both the groups improved in life-satisfaction and psychosocial functioning during active treatment. Reductions in tic severity (HR) and improvements in life-satisfaction and psychosocial functioning (HR and SP) remained stable at the 6-month follow-up. The extent of pre-treatment response inhibition impairment in the HR group predicted reductions in tic-severity from pre- to post-treatment. Results suggest that HR has specific tic-reducing effects although SP is effective in improving life-satisfaction and psychosocial functioning. Assessments of response inhibition may be of value for predicting treatment response to HR (Woods et al., 2006).

Cognitive behavior therapy (CBT) and medication can be administered in combination in treating tic disorders but there are no studies evaluating the effectiveness of CBT with and without medication. Kieron et al., (2009) compares the efficacy of CBT in combination with medication and without medication. CBT was administered in a consecutively referred sample of 76 people

diagnosed either with Gilles de la Tourette syndrome or chronic tic disorder. The sample was divided into a medicated and a non-medicated group (Kieron et al., 2009). Original HRT procedures described by Azrin and Nunn (1973) were modified for use in a group context to examine the efficacy of Habit Reversal Training (HRT) in a group format for the treatment of trichotillomania. Treatment included self-monitoring, awareness training, competing response training, and homework assignments. Post-treatment data indicated decreases in measures of global severity of symptoms, severity of thoughts about hair-pulling, and severity of hair-pulling behavior, relative to pretreatment measures. Three of the five patients maintained improvement at 1-month follow-up, and two patients maintained treatment gains at six months. Follow-up scores for all patients continued to be lower than pretreatment scores. These case illustrations replicate and extend prior data, lending support to the viability of HRT in a group format as a meaningful approach to treating trichotillomania (Melinda & Mouton, 1996). Crosby et al., (2012) attempted to replicate the effectiveness of the ACT/HRT treatment package for trichotillomania and to provide practical clinical guidance on how to deliver the treatment. This guidance is presented in the context of an empirical study in which 5 participants demonstrating high levels of pulling at pretreatment were treated with 8 sessions of a combination of ACT and HRT. Treatment resulted in an 88.87% reduction in pulling across participants from pretreatment to post treatment, and all 5 responded to the treatment (Crosby, Dehlin, Mitchell & Michael, 2012). The review suggests the significance of certain behavioural interventions in the reduction of severity of tics in different age groups.

Studies reported in the foregoing indicate a need for further studies to examine the efficacy of certain procedures viz., use of reinforcement, anger management and cognitive behavior therapy (CBT) in the reduction of intensity of Tics habit disorder in the Indian context.

Keeping this in view the present study is contemplated with an objective to assess the role of behavioral interventions by using pre and post design in the management of habit disorder viz., tics in a sample of junior high school students.

Sample, Method and Tools:

A select sample of 48 boys and girls with moderate intensity levels of tics in the age group of 11-14 years were drawn from a total sample of 180 students in four Zilla Parishad High Schools located in Chittoor district of Andhra Pradesh. Children with moderate intensity of tics were randomly divided into two groups viz., Experimental group (N=24) which was subjected to intervention programme and other was as Control group (N=24) which was not exposed to any intervention. An Intervention package consisted of behavior modification techniques viz., Interval Schedule Reinforcement, Oral in-

struction but no reinforcement, Anxiety management methods and Cognitive Behavior Therapy.

The subjects who were in Experimental group were divided into four small groups (Group A, B, C & D with .N=6) and were given the interventions for Tics and no interventions to the subjects in four small sub groups in the control group (Group A, B, C & D).

Intervention package details:

At the beginning of interventions, the child and the investigator made a list (the Tic Hassles list) of all the negative features associated with his or her tics (i.e., embarrassing, painful, disruptive, need to overcome the habit etc.). The hassles list is revisited occasionally when improvement in the child's tics behavior. In addition, to break down the child's denial of symptoms and enhancing motivation for treatment, the hassles list also serves as a step toward an exploration of consequences of their tic disorder and a more realistic acceptance of their condition.

For the subjects in the Intervention sample four procedures were followed i.e. one group of children (N=6) with tics were reinforced for the absence of tic, on a fixed interval schedule of reinforcement in the presence of alarm. In the second group of six children (N=6) with tics were instructed orally to suppress their tics but were not reinforced for doing so in the presence of alarm.

The third condition was introduced to another group of six children (N=6). Anxiety is commonly observed among children with tics in the present study. Therefore the anxiety management techniques were used for tic control on the basis of observation that increases in stress and anxiety and concomitant increases in tic frequency, intensity, and duration. Also deep breathing, progressive muscle relaxation, and imagery were used as anxiety management techniques for tic disorders in the present study.

CBT was given to another group of Experimental group sample of six children (N=6) with tics. The subjects were exposed to CBT using cognitive and emotional components of behavior i.e. acceptance and commitment. CBT was extended in four (4) sessions per week over 8 weeks with a focus in developing self-regulated behavior including self monitoring, awareness training, competing response training, and homework assignments.

Different Behavioral Interventions in the Management of Tics Habit Disorder

Type of Habit disorder	Type of behavioral intervention given	Experimental group			Control Group		
		Pre	Post	t	Pre	Post	t
Group A	1. Interval Schedule Reinforcement (N=6)	17.0	11.2	2.23*	17.0	17.2	1.5@
Group B	2. Oral instruction No reinforcement (N=6)	17.0	11.4	2.26*	17.0	16.9	1@
Group C	3. Anxiety management methods (N=6)	17.4	11	2.25*	17.4	17.5	1@
Group D	4.CBT(N=6)	16.8	10.9	2.08*	16.8	16.9	1@

RESULTS & DISCUSSION:

For the habit disorder Tics, four different interventions viz., oral instruction with the use of reinforcement, oral instruction without reinforcement; anxiety management methods and CBT were used.

As the Experimental group (EG) was exposed to behavioral interventions, the mean trends of habit disorder Tics in pre and post intervention sessions in Experimental group were examined separately and Control group (CG) to check whether the overall effect of interventions.

The results indicate that the pre and post intervention scores differed significantly, this clearly demonstrates that the behavioral interventions used, on the subjects in Experimental group in the present investigation were found to be effective. The present study results on the efficacy of Behavioral interventional strategies for tics habit disorder clearly demonstrated the significance of Behavior modification interventions in reducing the intensity of tics in children of 11-14 years. These interventional sessions indicated variability in the expression of tic symptoms. The first condition viz., interval schedule reinforcement was found to be effective in reducing the tic symptoms.

Post CBT assessment demonstrated decrease in the measures of global severity of symptoms, severity of thoughts about tics like disturbing sitting postures, hair pulling, fingers in nostrils etc.,. The present study results on efficacy of behavioral interventions in the reducing the intensity of tics are concurrent with some of the western studies carried out by Crosby et al., 2012; Kieron et al., 2009, woods et al., (2006).

As the severity of habit disorders would significantly interfere with social, emotional and educational opportunities of subjects, the present study would be a meaningful addition for school going children in early puberty years and late adolescence. The knowledge on efficacy of interventions is helpful for school guidance and counseling programmes. The results suggest that there is a need to develop awareness on habit disorders especially for parents. It helps in promoting well being of children.

REFERENCE

1. Anker, J., and Walsh, R. (1961). Group psychotherapy, a special activity program, and group structure in the treatment of chronic schizophrenics. *Journal of Consulting and Clinical Psychology*, 25(6), 476-481. | 2. Copper J.B., and Lewis, J.H.: Parent evaluation as related to social ideology and academic achievement. *J. Genet. Psychol.*, 1962, 101, 135-143. | 3. Crosby, John P. Dehlin, P.R. Mitchell, Michael P. Twohig. (2012). Acceptance and Commitment Therapy and Habit Reversal Training for the Treatment of Trichotillomania, *Cognitive and Behavioral Practice*. 3 (4), 499-618. | 4. Deckersbach, Scott Rauch, Ulrike Buhlmann, Sabine Wilhelm. (2006). Habit reversal versus supportive psychotherapy in Tourette's disorder: A randomized controlled trial and predictors of treatment response. *Behaviour Research and Therapy*, 44(8), 1079-1090. | 5. Kieron P. O'Connor, AnickLaverdure, Annie Taillon, Emmanuel Stip, François Borgeat, Marc Lavoie. (2009). Cognitive behavioral management of Tourette's syndrome and chronic tic disorder in medicated and unmedicated samples. *Behaviour Research and Therapy*, 47(12), 1090-1095. | 6. Melinda A. Mouton, Suzanne G.; Stanley. (1996). Habit reversal training for trichotillomania: A group approach *Cognitive and Behavioral Practice*, 3 (1), 159-182. | 7. Sears, R.R.(1944). Experimental analysis of psychoanalytic phenomena. In hunt, J. McV., ed.: *Personality and the Behavior Disorders*. New York: The Ronald Press Co., 1, P. 329. | 8. Woods, D., Flessner, C., & Conelea, C. (2008). Habit disorders. In M. Hersen (Series Ed.) & D. Reitman (Vol. Ed.) *Handbook of Psychological Assessment, Case Conceptualization, and Treatment*, 7. Children and Adolescents, 542-570. |