

Behavioral Sciences Consortium: A TSA Success Story

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on behalf of the TSA *Behavioral
Sciences Consortium*

TSA Gets Involved

- TSA Research Award Program was funding a number of researchers to do smaller behavior therapy studies
- TSA recognized a need for well-tested and effective nonpharmacological treatment options

Sample of Behavior Therapy Studies Being Funded by TSA Research Award Program

- Azrin & Peterson, 1986
- Wilhelm et al., 1997
- Piacentini., 1997
- Deckersbach et al., 2001
- Sukhodolosky et al., 2001
- Piacentini & Woods., 2002

Creation of the Behavioral Sciences Consortium

- TSA brought together a multidisciplinary group of researchers to inform TSA about the development of nonpharmacological treatment options
- John Piacentini, Ph.D. (UCLA) named as chair
- Other members of the BSC included...
 - John Walkup (Johns Hopkins)
 - Lawrence Scahill (Yale)
 - Doug Woods (UW-Milwaukee)
 - Sabine Wilhelm (Mass. General Hospital/Harvard)
 - Alan Peterson (U. of Texas Health Sciences Center)
 - Golda Ginsberg (Johns Hopkins)
 - Thilo Deckersbach (MGH/Harvard)
 - Susanna Chang (UCLA)

Activities of the BSC

- TSA funded initial BSC meetings
- BSC decided that current behavioral treatments...
 - Were promising
 - Could be enhanced by modifying them
 - Needed to be tested in large studies
 - Needed to be tested in children and adults

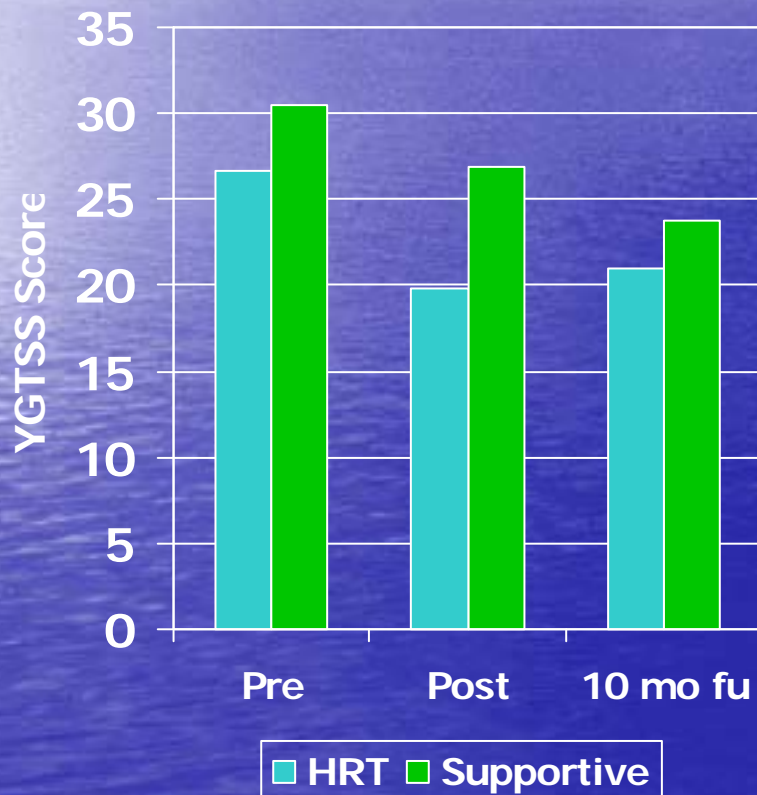
What the BSC found when looking at current nonpharmacological treatments...?

- Only nonpharmacological treatment with any empirical support was Behavior Therapy.
- Behavior therapy is a treatment that teaches tic management skills
- Habit reversal training (HRT) was an early type of behavior therapy for tics developed in 1973

Does HRT Work?

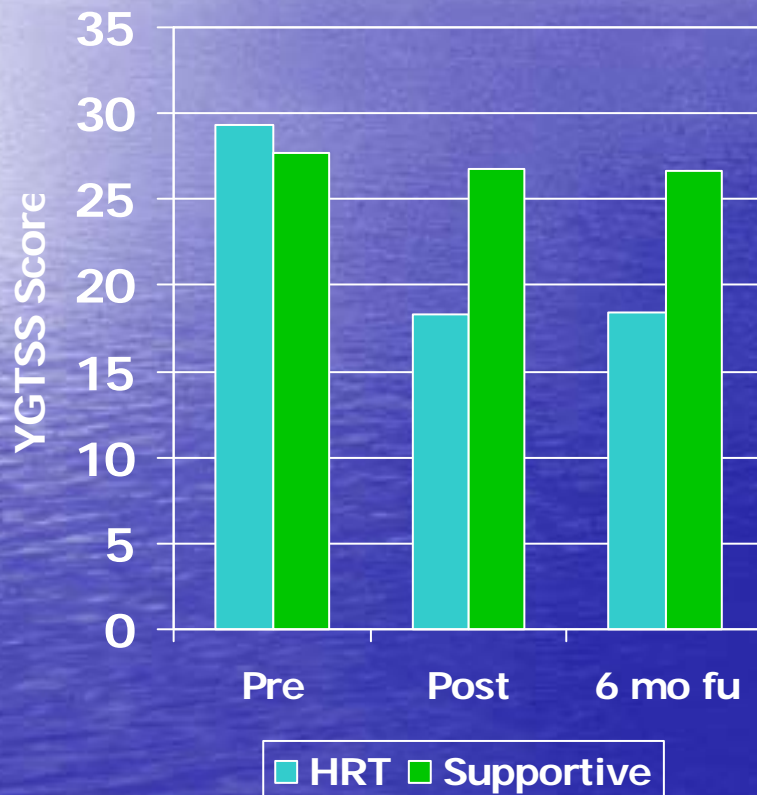
- HRT has been studied for over 30 years using small-n and group experimental designs
- To date, 6 Randomized Controlled Trials (RCTs) have been conducted
- Results have been promising in both children and adults, but....
- The samples were small

HRT vs. Supportive Therapy (Wilhelm et al., 2003; Am J Psychiatry)



- 32 adults with TS received HRT or supportive therapy
- 14, 1 hour sessions
- 29 completed at least 8 sessions
- HRT more effective than ST at post treatment
- HRT maintained gains at 10 month follow-up
- No difference between supportive therapy and HRT at follow-up

HRT vs. Supportive Therapy (Deckersbach et al., 2006; Behav Res Ther



- 30 adults with TS randomly assigned to HRT or ST
- 14, 1 hour sessions
- 2 subjects dropped from the study
- 10/15 in HRT were much improved at post treatment
- 2/15 in ST were much improved at post treatment
- HRT more effective than ST at post treatment and 6-mo follow-up
- Poor pretreatment performance on a go-no go task predicted poorer response to HRT

How the BSC Enhanced HRT

- Psychoeducation about tics
- Functional Intervention
- Reward System
- Relaxation Training
- The result was a new treatment called Comprehensive Behavioral Intervention for Tics (CBIT)

The BSC Designed Large Studies to Test CBIT in Children and Adults

- Two separate studies were proposed (one for adults, one for children)
- All six sites represented by the BSC were involved in each study
- Child Study
 - JHU, UCLA, and UWM were primary sites
- Adult Study
 - Yale, MGH, and UTHSC were primary sites
- Both grants were prepared with assistance from the TSA over the course of 2 years
- Both grants were funded (approximately \$3 million per grant)

Treatments Being Compared

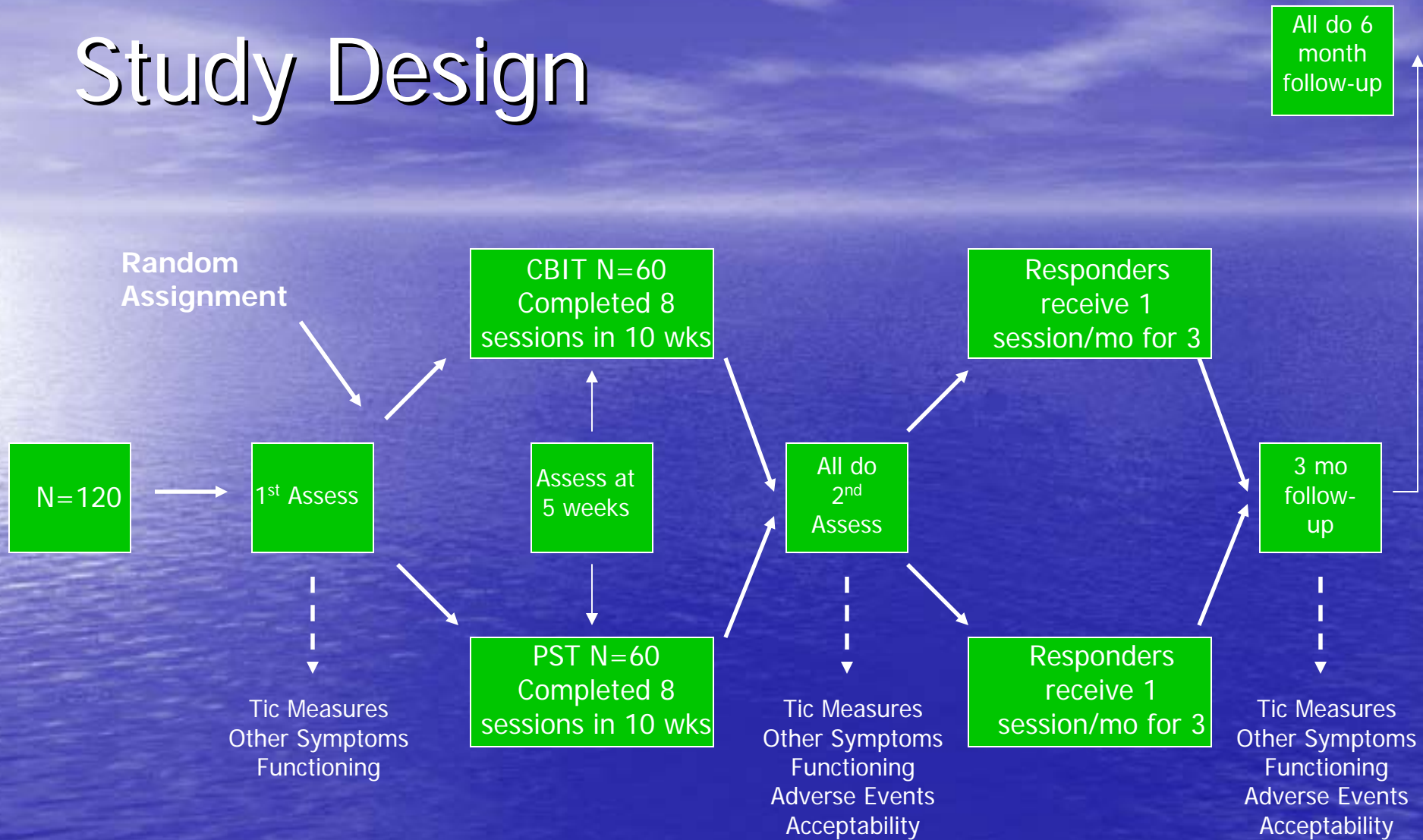
CBIT Components

- Psychoeducation
- Habit Reversal Therapy
- Functional Intervention
- Reward System
- Relaxation Training

Psychoed/Support Components

- Phenomenology of TS
- Prevalence of TS
- Natural History of TS
- Common Comorbidities
- Causes of TS
- Psychosocial Impairments
- Nonspecific Support

Study Design



Status of CBIT

- Child study has completed recruitment ahead of schedule (N=124)
 - Analyses have been completed and we are in the process of interpreting them
- Adult study has recruited about 60% of final sample

Things We Will Learn from CBIT

- How well behavior therapy works across
 - Ages
 - Severity
 - Those on and off medication for tics
 - Geography
 - Presence of other psychiatric problems
- If there are negative effects of behavior therapy
- About TS itself (large, well-characterized samples)

What is next for the BSC?

- Finishing adult study and writing papers
- CDC-TSA Partnership to deliver workshops and talks about CBIT
- Publication of CBIT Therapist Guide and Patient/Family Workbook (Woods et al., 2008; Oxford Press)
- Exploring ways to disseminate CBIT (Himle & Woods)
- Looking into a partnership with business to develop a DVD set to train therapists
- Studies looking at combination treatments
- Looking at developing behavior therapy for very young children
- Understanding why behavior therapy has the effects it does

Was it Worth the Time and Effort?

- The CBIT studies could not have been completed without TSA
- Was it worth it?
 - ***Financially:*** TSA turned a \$330,000 investment into \$6,000,000 in TS research
 - ***Research:*** TSA funded a few studies and will likely get dozens in return from CBIT studies
 - ***Patient Support:*** TSA helped develop another treatment option for those with TS

✓ **Treatments** *That Work*[™]

Tourette Syndrome

A Habit Reversal Therapy Approach

Therapist Guide

Douglas W. Woods

John Piacentini

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Golda Ginsburg

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Lawrence D. Scahill

John T. Walkup

Sabine Wilhelm