


Engaging children with ASD in everyday family routines:
Strategies for parents of young children

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Web-based tutorial
“Daily Routines and Autism: Improving Your Child’s Communication and Behavior during Everyday Routines”

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Collaborators:
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Presentation Overview

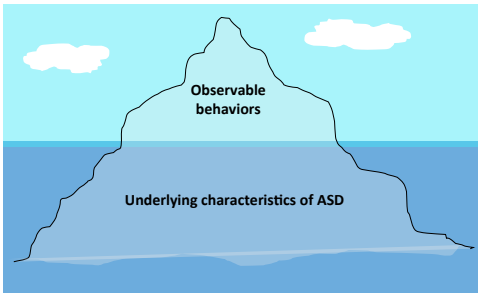
- General principles and approaches guiding the development and content of the tutorial
- Examples of tools and strategies for improving children’s participation in family routines
- Results from a study examining the effectiveness of the tutorial

Conceptual Framework

- Young children with ASD have a unique combination of characteristics that affects the way they interact socially, communicate with others, and respond to their environment
- These characteristics can lead them to experience the world differently, sometimes as confusing and frustrating
- We need to adopt strategies that will provide structure and predictability, convey our expectations, and create positive learning opportunities

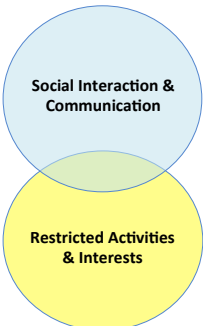


Characteristics of ASD and their effect on behavior



Adapted from Division TEACCH – UNC, Chapel Hill

Characteristics of ASD in Young Children



- Difficulty understanding social-emotional cues
- Reduced social interest & engagement
- Difficulty understanding language
- Difficulty communicating needs and desires

- Restricted repertoire of play activities
- Intense, focused interests
- Rigid adherence to routines & difficulty with transitions or change
- Sensory sensitivities

Characteristics of Family Routines

- Activities related to caretaking
- Occur on most (or all) days of the week
- Involve a consistent sequence of steps, with a clear beginning, middle, and end

Play Time Routine

Get the toys Play with the toys Put the toys away

Why are family routines important?

- They can increase the efficiency of everyday activities
- They can provide structure, consistency, & predictability for all family members
- They can help children with ASD understand behavioral expectations and anticipate events
- They can provide an excellent context for learning and practicing social-communication skills

"After this page, Mom is going to turn off the lights"

Objectives of Tutorial

Daily Routines and Autism: Helping improve your child's communication and behavior during everyday activities

To help families...

- Develop consistent, predictable family routines (if they don't already have them)
- Identify the challenging steps of their routines and develop goals to improve their child's level of participation, cooperation, and independence
- Use family routines as a context for teaching social-communication skills to their child

Characteristics of Tutorial

Daily Routines and Autism: Helping improve your child's communication and behavior during everyday activities

- Provides strategies based on principles of applied behavior analysis (ABA)
- Contains interactive material to promote adult learning
- Includes videos of actual families in their own homes
- Allows parents to individualize goals to meet family needs
- Focuses on four different family routines...

Bath time
 Snack time
 Bed time
 Family play time

General Approach

Daily Routines and Autism: Helping improve your child's communication and behavior during everyday activities

- Parents pick a routine to work on
- Identify the sequence of steps in the routine
- Choose one step of the routine to improve
- Identify the child's current level of participation
- Use new tools and strategies to increase the child's level of participation and engagement


Levels of participation in routines

Engages socially
Participates
Tolerates
Doesn't tolerate


Interacts (imitates, requests, shares, shows, takes turns)
Assists/shows some independence
Passively accepts
Actively resists

Examples of Tools & Strategies


- **Visual Supports**
 - Prompting
 - Reinforcement




Visual Timers



Choice Boards




First-Then Boards



Visual Schedules

Overview of the Process

- Parent picks a routine
- Identifies the sequence of steps in the routine
- Identifies one step to work on
- Identifies the child's current level of participation in that step
- Identifies a goal



Bath Time routine

Overview of the Process

- Parent picks a routine
- Identifies the sequence of steps in the routine
- Identifies one step to work on
- Identifies the child's current level of participation in that step
- Identifies a goal

	1. Get undressed
	2. Get in tub
	3. Wash hair and body
	4. Play in the bath
	5. Sing songs
	6. Get out of tub
	7. Get dressed

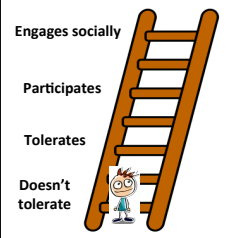
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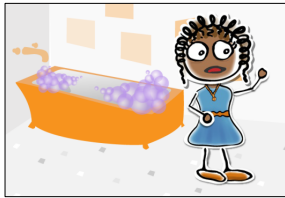
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Examples for Bath Time routine

GOALS: Tolerating & Participating



Bath Time routine

	1. Get undressed
	2. Get in tub
	3. Wash hair and body
	4. Play in the bath
	5. Sing songs
	6. Get out of tub
	7. Get dressed


Goal

Engages socially


Participates

Tolerates

Doesn't tolerate



Goal: TOLERATING getting into the tub



- Adjust water temperature or level
- Introduce child gradually
 - Very shallow water
 - Sitting on stool
 - Brief periods, without washing
- Give lots of praise, and gradually increase expectations

Make bath time more fun

- Favorite toys
- Bubbles
- Color tablets
- Music
- Bath crayons

Can limit access to bath time only

Bath Time routine

	1. Get undressed
	2. Get in tub
	3. Wash hair and body
	4. Play in the bath
	5. Sing songs
	6. Get out of tub
	7. Get dressed


Goal

Engages socially

Participates

Tolerates

Doesn't tolerate



Goal: TOLERATING washing hair and body

Hair visor
Soft scrubber
First-Then Board



First-Then Boards

Bath Time routine

	1. Get undressed
	2. Get in tub
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Goal

Engages socially

Participates

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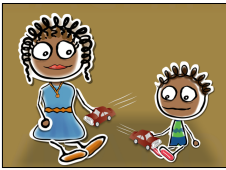
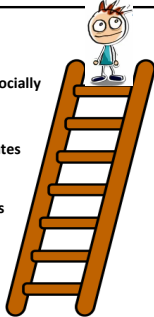
Goal: **PARTICIPATING IN** washing hair and body

Visual schedule



Child can play an active role in pointing to cards, removing them when finished, & learning to wash each body part

Improving Social Engagement

Engages socially

Participates

Tolerates

Doesn't tolerate

Improving Social Engagement



- Looking at you
- Communicating
 - Understanding language
 - Requesting
 - Making choices
 - Using words
 - Using gestures
- Imitating
- Taking turns

Improving Social Engagement

Goal: **UNDERSTANDING LANGUAGE**
Talk about your child's focus of attention

- Describe what your child is doing
- Use simple language
- No demands, no questions

"Pour juice"

"Stir eggs"

"Wash hands"

"Push"

"Pouring the water"

Improving Social Engagement

Behaviors used

- Uses a highly motivating activity (action song)
- Establishes a familiar routine with the song
- Sits at eye level with child
- Starts the routine and then pauses in the middle
- Waits for eye contact...then rewards immediately by continuing the song
- Repeats to give more practice

Goal: **LOOKING AT YOU**
Routine: **PLAY TIME**
Strategy: **PAUSING**

Improving Social Engagement

Behaviors used

- Uses a choice board to offer different snack options
- After child selects snack, gives another choice about flavor (more practice)
- Moves closer and gets at eye level to help child succeed
- Models language "I want purple"
- Gives the snack immediately

Goal: **REQUESTING**
Routine: **SNACK TIME**
Strategy: **CHOICE BOARD**


Improving Social Engagement

Behaviors used

- Uses a choice board and simple language to offer different snack options
- Gives the chosen snack in a sealed bag so the child needs to request help
- Uses gestural prompts to increase success
- Models language “chip,” “help”
- Gives the snack immediately

Goal: **REQUESTING**
Routine: **SNACK TIME**
Strategy: **CHOICE BOARD**

Assessing the Effectiveness of the Parenting Tutorial



Statistical analyst: Lisa Ibañez, PhD

Assessing the effectiveness of the Parenting Tutorial

- Study conducted at Vanderbilt University and University of Washington
- Randomized clinical trial
- 104 Parents
 - 52 in Tutorial condition
 - 52 in Control condition (delayed tutorial)
- Parents completed questionnaires at 3 time points:
 - T1 (baseline)
 - **Tutorial** → T2 (1 month after baseline)
 - T3 (2 months after baseline)

Demographic characteristics of sample

Characteristic	Tutorial group	Control group
Parent’s age (yrs)	Mean = 34.7 Range = 21-52	Mean = 34.6 Range = 24-52
Parent’s education (% with some college)	98%	96%
Parent’s race (% White)	90%	81%
Child’s age (% under 5 years old)	90%	87%

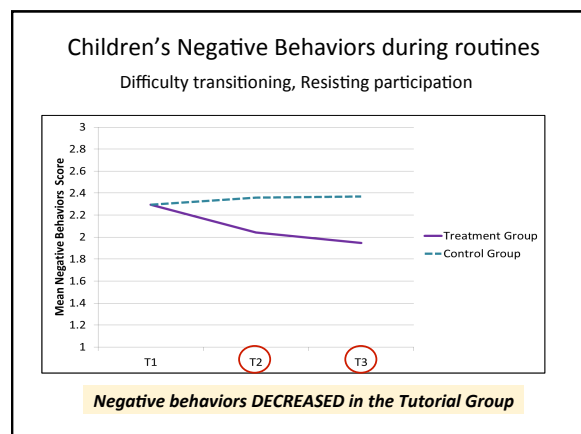
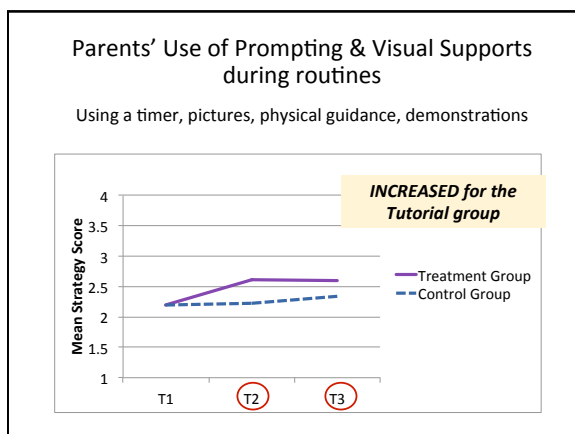
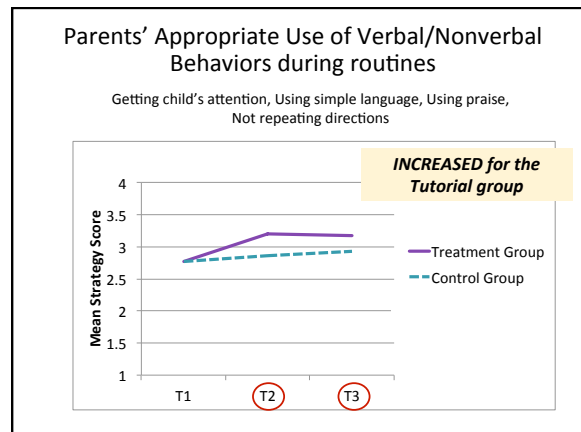
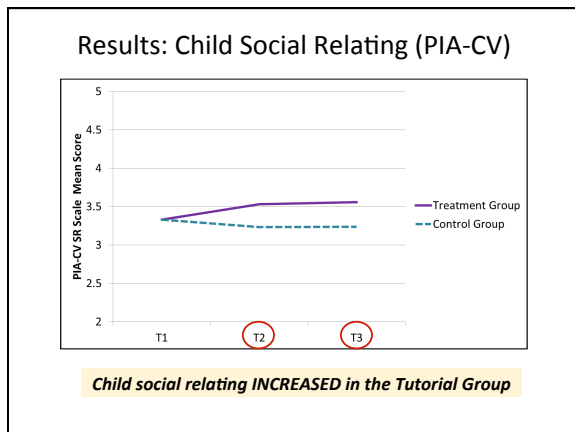
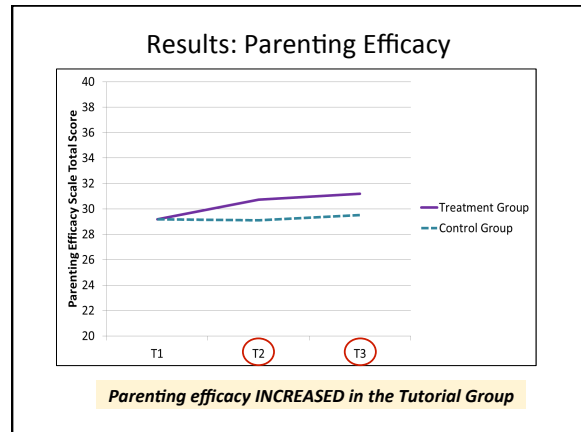
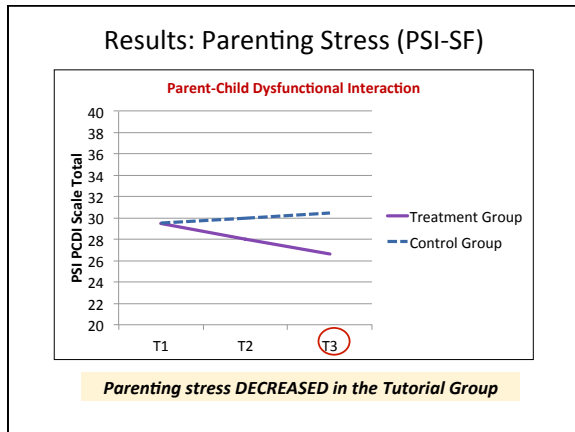
No significant group differences at baseline for any variable

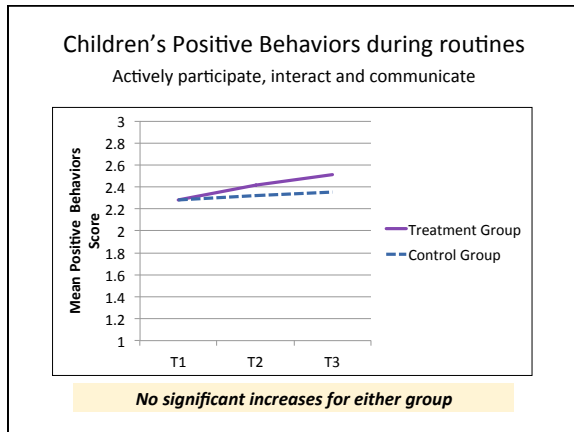
Parent-Report Measures

- **Parenting Stress Index-Short Form**
(PSI-SF; Abidin, 1995)
- **Maternal Efficacy Scale**
(MES; Teti & Gelfand, 1991)
- **Parent Interview for Autism – Clinical Version**
(PIA-CV; Stone et al., 2003)
- **Child Behavior During Routines**
(Wallace, Stone, & Swanson, 2014)
- **Parent Behavior During Routines**
(Wallace, Stone, & Swanson, 2014)

Data Analysis

- Used an “intent to treat” model
- Data were included whether or not parents completed the tutorial or the follow-up questionnaires
- Missing data on key outcomes were estimated using full maximum likelihood (FML) in hierarchical linear modeling (HLM)
- The 3 time points were part of the Level-1 model, which examines intra-individual variability, and group assignment was examined as part of the Level-2 model, which examines inter-individual variability





Summary of Research Findings

- Parents in the Tutorial group self-reported...
 - Decreased parenting stress
 - Increased parenting efficacy
 - Increased use of appropriate verbal/nonverbal behaviors during routines
 - Increased use of prompting and visual supports during routines
- Parents in the Tutorial group reported that their children showed...
 - Increases in social relating
 - Decreases in negative behaviors during routines

Conclusions

- Use of the Tutorial can lead to positive behavioral changes in parents and children
- Use of the Tutorial can lead to reduced parenting stress and increased parenting efficacy
- Additional research is needed to determine the effectiveness of the Tutorial:
 - In low-resource settings
 - For families waiting for an ASD diagnostic evaluation
 - For increasing child's engagement and communication
 - In producing sustained changes

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