Utilizing Parent-choice Activities in Interactions with Children with ASD: A Means of Increasing Happiness in Parents

Heather Hilmoe, Rachel Cansler, Robert Koegel, Ph.D., Lynn Koegel, Ph.D., and Sunny Kim, M.A.

University of California, Santa Barbara, Geissle Graduate School of Education

Abstract

Parents of children with ASD undergo increased levels of stress trying to include their child with ASD in routine family activities. Having the child learn to participate in parent preferred and family centered activities has the potential to not only alleviate parental stress, but alter parents’ assumptions that their child is unable to engage in typical, inclusive activities. A three dyad, synchronous baseline across participant design was used to investigate whether incorporating parent-preferred activities during intervention would lead to a decrease in parental stress and depression while increasing engaging child and parent affect. The preliminary data demonstrates that both the parent and child exhibit low levels of engagement and high levels of affect during interactions with each other during baseline conditions (i.e., non-shared activities).

Methods

Participants and Data Collection: Three families and children with ASD that met the following selection criteria were selected to participate in this study. Selection criteria included: (1) the parent has measurable stress and depression, and (2) the child with ASD uses expressive verbal language. The study took place in the participants’ home and community settings. Data was collected by using an iPhone touch to video record all sessions either by an advanced graduate student majoring in special education or by an undergraduate student majoring in psychology. The graduate and undergraduate students had prior experience with video recording. The video recording began as soon as the parent and the child began engaging in an activity.

Design: A repeated measures multiple baseline across participants experimental design (Barbar, Nov & Inman, 2009; Baxter & Baxters, 2002) was used to evaluate the effects of incorporating parent-preferred activities into the intervention plan for children with ASD. The anti-participant design with three dyads allowed for demonstrations of experimental effect at different points in time (i.e., Horner, Carr, Hall, McGinty, Odom, & Wolery, 2005). Probes were conducted once every three per participant throughout the study. Systematically staggered baselines of 4, 7, and 10 sessions were recorded.

Procedure: Baseline. During the baseline condition, each participating family was observed participating in their regular activities. No instructions were given to each family to incorporate parent-preferred activities during the sessions. Intervention. In the intervention condition, parents were instructed to make a list of the preferred activities. Once parents had identified their preferred activities, they taught their child how to participate in these activities. For example, if the parent has a preferred interest in playing tennis, the parent systematically taught their child how to play tennis.

Dependent Measures

Parent and Child Affect

Each parent and child’s overall affect were subjectively measured by analyzing video probes. An adapted parent Likert scale (Koegel & Koegel, 2003) was used to score the individual’s overall affect. This scale was selected because it has been shown high validity and reliability (Siegel, 2003). Each affect was coded as determined by the above scoring a score of 0 to 4 on the scale, neutral affect was defined as the individual receiving a score of 3 or 4 on the scale, negative affect was defined as the individual receiving a score of 1 or 0 on the scale.

Parent and child affect was recorded by using a 30-second partial interval recording procedure. For each interval, a plus or minus was recorded to denote the presence or absence of engagement. At the end of each session, the total number of pluses was divided by the total number of sessions in the interval multiplied by 100 to yield a percentage of engagement per session. Positive engagement was defined as the parent/child activity interactions within the parent/child and participating in the activity throughout the session. Negative engagement was defined as the parent/child not participating in the activity and/or not interacting with the parent/child.

Preliminary Results

Effect of Intervention: Participant one exhibited neutral to low levels of affect. Participant two and three exhibited neutral to high levels of affect during intervention with positive affect levels remaining low during intervention. While the baseline data has suggested low levels of affect and synchronous engagement for both parent and child, the next step in our research will be the implementation of our intervention to see if incorporation of parent/child activities will provide parent pre- and post-intervention data. We anticipate the results will show that the intervention will continue intervention for Family 1. Begin intervention for Family 2. and add a 3rd family to this study. After the intervention condition, a 3-week follow-up session will be conducted. Participants will also be given the Beck Depression Inventory (BDI) during the baseline, intervention, and follow-up conditions (i.e., Parent 1 already filled out the BDI during the baseline condition).

Discussion

The preliminary results of this study suggest that while parents are willing to be engaged in child/preferred activities, their affect levels remain low during these interactions. Because the baseline data has suggested low levels of affect and synchronous engagement for both parent and child, the next step in our research will be the implementation of our intervention to see if incorporation of parent/child activities will provide parent pre- and post-intervention data. We anticipate the results will show that the intervention will help increase engagement of the family in the activities together. We anticipate the results will show that the intervention will continue intervention for Family 1. Begin intervention for Family 2. and add a 3rd family to this study. After the intervention condition, a 3-week follow-up session will be conducted. Participants will also be given the Beck Depression Inventory (BDI) during the baseline, intervention, and follow-up conditions (i.e., Parent 1 already filled out the BDI during the baseline condition).

Future Direction

We aim to continue intervention for Family 1. begin intervention for Family 2. and add a 3rd family to this study. After the intervention condition, a 3-week follow-up session will be conducted. Participants will also be given the Beck Depression Inventory (BDI) during the baseline, intervention, and follow-up conditions (i.e., Parent 1 already filled out the BDI during the baseline condition).

Acknowledgements

A special thank you to our advisors Dr. Robert Koegel, Dr. Lynn Koegel, and Sunny Kim for providing invaluable guidance and support throughout the research process. Funding for this project was provided by the UCSC program in the Development of Early Intervention in Autism (DEI).

For Further Information

heather.hilmoe@gmail.com | Rachel Cansler | koegel2@ucsb.edu

Dependent Measures

Parent and Child Affect

Parent and child affect was recorded by using a 30-second partial interval recording procedure. For each interval, a plus or minus was recorded to denote the presence or absence of engagement. At the end of each session, the total number of pluses was divided by the total number of sessions in the interval multiplied by 100 to yield a percentage of engagement per session. Positive engagement was defined as the parent/child activity interactions within the parent/child and participating in the activity throughout the session. Negative engagement was defined as the parent/child not participating in the activity and/or not interacting with the parent/child.

Parent 1 Parent 2 Parent 3

<table>
<thead>
<tr>
<th>Age</th>
<th>Mid-30's</th>
<th>Mid-30’s</th>
<th>Late 30’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>Caucasian</td>
<td>Caucasian</td>
<td>Hispanic</td>
</tr>
<tr>
<td>Preferred Interests/Activities</td>
<td>Tennis, Basketball, Swimming, Running, Riding Bikes</td>
<td>Going out in the community as a family (going to restaurants, going to parks)</td>
<td>Playing soccer, basketball, playing football, fishing</td>
</tr>
</tbody>
</table>

Parent 1 Parent 2 Parent 3

<table>
<thead>
<tr>
<th>Age</th>
<th>11 years old</th>
<th>12 years old</th>
<th>9 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>Caucasian</td>
<td>Caucasian/Filipino</td>
<td>Hispanic</td>
</tr>
<tr>
<td>Preferred Interests/Activities</td>
<td>Watching Disney movies, playing on the iPad</td>
<td>Disney characters (Tinkerbell, princesses, Tom from Ninjago, watching TV, playing on the iPad</td>
<td>Playing Minecraft, watching Disney movies, swimming, playing video games (Super Mario)</td>
</tr>
</tbody>
</table>

Child 1 Child 2 Child 3

<table>
<thead>
<tr>
<th>Age</th>
<th>11 years old</th>
<th>12 years old</th>
<th>9 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>Caucasian</td>
<td>Caucasian/Filipino</td>
<td>Hispanic</td>
</tr>
<tr>
<td>Preferred Interests/Activities</td>
<td>Watching Disney movies, playing on the iPad</td>
<td>Disney characters (Tinkerbell, princesses, Tom from Ninjago, watching TV, playing on the iPad</td>
<td>Playing Minecraft, watching Disney movies, swimming, playing video games (Super Mario)</td>
</tr>
</tbody>
</table>