

## Family Leisure as a Context for AAC Intervention: An Interdisciplinary Case Study

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## Learning Objectives

At the conclusion of the session, participants will be able to:

- Identify activities classified as family leisure and related benefits
- Explain critical features of family leisure that make it an optimal context for AAC intervention
- Recognize barriers and consider potential interdisciplinary strategies to increase successful AAC intervention within family leisure activities

## What is family leisure?



- “A form of purposive leisure, which is planned, facilitated, and executed by parents in order to achieve particular short- and long-term goals”

(Shaw & Dawson, 2001, p. 228)

## Two types of family leisure

### Core family leisure activities

- Common, everyday, low-cost, relatively accessible and often home-based activities that families do frequently
  - E.g., watching TV, playing board games, playing in leaves
- Require little planning
- Spontaneous and informal
- Provide a consistent and positive context to foster family relationships
- Facilitate **cohesion** and **balance** within family

### Balance family leisure activities

- Less common and frequent activities that provide novel experiences and are typically not home-based
  - E.g., vacations, sporting events, outdoor recreation
- Require greater investment of resources (e.g., time effort, money) and substantial planning required
- Less spontaneous and more formal
- Require that families **adaptive** skills to learn and change

Zobrickie & McCormick, 2001

## Benefits of family leisure

- **Family cohesion** (Zabriskie & McCormick, 2001)
- **Family adaptability** (Zabriskie & McCormick, 2001)
- **Improved satisfaction with and quality of family life** (Mactavish & Schleien, 2004; Zabriskie & McCormick, 2003)
- **Child socialization** (Shaw & Dawson, 2001)
- **Family communication** (Smith, Freeman & Zabriskie, 2009)

## Family leisure in families that include a child with a disability

- **Patterns of leisure participation** (Mactavish, Schleien, & Tabourne, 1997)
  - All family (reserved for special occasions)
  - Subunit (most frequent)
  - Equal combination

## Family leisure in families that include a child with a disability

### Benefits

- Builds sense of connection between family members
- Provides opportunity for children to develop skills
- Opportunity to experience success and positive affirmations

### Constraints

- Juggling schedules
- Lack of common interest across ages and abilities
- Domain specific skill deficits
  - Physical
  - Social
  - Health care needs
- Accessibility of developmentally appropriate activities

Mactavish & Schleien (2004)

*“Sharing fun activities with the kids and one another is probably the most important thing we can do as a family.”*

Mactavish & Schleien (2004)

## Case Introduction

The details of the medical and family history of this family are taken from a published article about these twins (Hicks, Ferguson, Bernier, & Lemay, 2008)

The ways in which family leisure activities could be used as a structure for communication intervention was synthesized by the presenters and was not part of the original article

## Case Background

- 3.5 year old twins with Smith-Magenis Syndrome
- Lived on a working farm with both parents
- Both parents had completed college
- Twins watched TV (1-2 hours per day) and played indoors/outdoors
- Require constant supervision
- Parents interested in learning strategies for working with their children

Hicks, Ferguson, Bernier, and Lemay (2008)

## Developmental History

	Adam	Zack
Responsive Smiles	3 mo	3mo
Sit unassisted	9 mo	9 mo
Walk	19 mo	18 mo
First words	18 mo	12 mo
Two-word phrases	24 mo	24 mo
Toilet trained	No	No
Feeding Issues	No	No
Sleep Disturbance	No	No

Hicks, Ferguson, Bernier, and Lemay (2008)

## Cognition

- Limited pointing, use of gestures, or head nodding
- Inconsistent eye contact
- Limited joint attention
- Some spontaneous play with cause and effect toys
- Developmental age equivalence score of approximately 12 mo

Hicks, Ferguson, Bernier, and Lemay (2008)

## Behavioral History

	Adam	Zack
Onset age	3 yo	1 yo
Head banging	Limited	Extensive
Biting Self	Yes	Yes
Biting Others	No	Yes
Hitting	No	Yes
Repetitive & Stereotyped (e.g., hand flapping, jumping)	Yes	Yes

Hicks, Ferguson, Bernier, and Lemay (2008)

## How can leisure be used as a supportive context for AAC intervention for Adam and Zack?

- Capture core family leisure activities and talk about them using VSDs.
  - VSDs support communication within family leisure activities.
  - VSDs support reminiscing after family leisure activities.



\* This picture is for illustrative purposes only, not a photo of the case individuals

## Literacy as family leisure in AAC intervention for the twins

With considerations  
from Applied Behavior  
Analysis (ABA)

## Literacy as leisure

- Many adults engage in literacy as private leisure (Barton, 2001)
- However, young children also engage in literacy as leisure
  - Instead of private leisure, it occurs within the context of family leisure
    - Parents, guardians, older siblings often read to young children; siblings read together
    - Young children may pretend to read to family members
- Literacy as family leisure for young children has important benefits
  - Promotes language development and the development of early literacy skills (Light & Kelford Smith, 2003)
    - For example, interactive shared reading between parents and children can promote the development of receptive and expressive communication (National Early Literacy Panel, 2009)

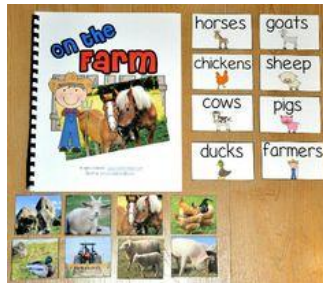
## Literacy as family leisure for children who require AAC

- Visual schedule
- Assessing behavior

- Families with young children who require AAC engage in literacy as leisure less frequently, despite valuing this family time (Light & Kelford Smith, 1993)
- For many families, they need to spend more time on activities of daily living and have limited time to devote to leisure
  - This may be true for the twins
  - The twins' self- and other-injurious behavior may also impact the often quiet and still nature of literacy as family leisure
- If clinicians assign families to literacy "homework", this may inadvertently morph that time from leisure to a chore

## What literacy as leisure might look like for the twins and their family: low-tech adapted books

- Family memories (e.g., a fun vacation) could be documented and revisited as low-tech adapted books
- Family photos could be printed in color with single words or short phrases underneath and placed in page protectors tied together with yarn
  - The text from the book could be printed separately, laminated, and Velcro-ed on to the book so that it could be placed there by the twins as a communication turn during the book reading activity (i.e., the leisure activity)
- Adapted books could also be made from the twins' interests (e.g., farm animals) or popular children's books



## What literacy as leisure might look like for the twins and their family: single-message buttons

- Evaluating preferences

- Find popular children's books with recurring lines, and program a single button with parent saying that line with enthusiasm
- Could also create an adapted book version of the story where the twins could move Velcro representations of that line from the adapted book to the button when they activate it
- For example, the line "I do not like green eggs and ham; I do not like them Sam I am!"
  - This builds on the twins' reported enjoyment of cause-and-effect toys



## What literacy as leisure might look like for the twins and their family: high-tech adapted books

- A tablet with a protective case could also be used to house photos of books or favorite people, games, activities, etc. to be used as books for the twins
  - Similar to the adapted books, except with a voice output component
- The illustrations from the book would constitute visual scene displays (VSDs), and could be programmed with dynamic text for the content of the book (i.e., the single words or phrases that go along with the book)
- The voice output could allow the young twins to participate in book reading by activating it themselves (i.e., “reading” the book instead of always listening to their parents reading)
  - The voice output component could also allow the twins to explore the books independently, a private leisure activity that young children who require AAC often do not have access to (Light & Kelford Smith, 1993)



## Potential benefits for the twins and the family of incorporating literacy as leisure in AAC intervention

- There are potential benefits in using AAC to promote literacy as a context for AAC intervention, such as:
  - Increasing overall leisure time, which has many benefits, including reducing stress for the entire family
  - Supporting parent-child bonding and twin-twin bonding
  - Promote early literacy skills such as print awareness for the twins
  - Impact parents’ perception of the academic potential of the twins

## Revisiting Applied Behavior Analysis (ABA)

### Why ABA?

ABA

“In reality, the principles of ABA are inextricably woven into the fabric of intervention methodologies for communication disorders”

- Prompts & Cues
- Modeling
- Chaining & Fading
- Reinforcement

(Ogletree & Oren, 2001, p. 102)

### Applications for Adam & Zack

Visual Schedules

- Parents are quite busy managing the farm and caring for the children
- Helping the family to create a visual schedule may assist them in determining:
  - time that might be available for leisure (e.g., literacy activities)
  - Activities that they are currently doing that could incorporate AAC interventions (e.g., washing the dishes, feeding the animals)
- Visual schedules may help to reduce behavior of the twins as activities become more predictable and consistent

### Applications for Adam & Zack

Assessing Behavior

- The twins challenging behavior may make it difficult for the family to engage in leisure activities (e.g., makes the activity stressful)
- Assessing the function of the behavior is a way to determine why the behavior is occurring and develop functionally related behavior strategies
  - Main 4 functions of behavior (“Everyone E.A.T.S.” escape, attention, tangible, and sensory)
  - Creation of a functional communication response that matches the function of the behavior (e.g., “All done” for escape behavior, “Look!” for attention seeking behavior, “my turn” for tangibles)

## Applications for Adam & Zack

### Evaluating Preferences

- In addition to selecting books and activities that are popular, the twins participation in leisure may be increased by incorporating toys or materials that they prefer
- Preference can be evaluated by
  - Observation (e.g., what toys or activities do they engage with?, how long?, how do they use them?)
  - Providing choices (e.g., selecting 8-10 items that the twins like or may potentially like and placing two at a time in front of them; which do they choose?)
  - Multiple stimuli (e.g., selecting 8 items that the twins like or may potentially like and placing them all in front of them; after engagement with first choice, remove item and present remaining 7, etc.)

## Applications for Adam & Zack

### Additional Thoughts

- Other considerations:
  - Gradually increase the amount of time the twins are expected to engage in leisure (especially if it is initially challenging)
  - Use timers or other visuals to indicate how much time is remaining
  - End on a positive
  - Remain consistent in expectations and follow through

## Additional Resources

- Autism Focused Intervention Resources and Modules (AFIRM) FBA Module: <http://afirm.fpg.unc.edu/node/783>
- <http://autismpdc.fpg.unc.edu/evidence-based-practices>
- Autism Internet Modules (AIM) <http://www.autisminternetmodules.org/>
- National Autism Center: Resources <http://www.nationalautismcenter.org/resources/for-educators/>
- <http://www.nationalautismcenter.org/resources/autism-a-closer-look/>

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