



**Nicole Wertheim**  
College of Nursing  
& Health Sciences

# Rehabilitation Clinical Professional Input on Water Safety Book and Assessment for Children with Autism Spectrum Disorder

Presented by: Kate E. Arias, OTS; Carolyn R. Boyer, OTS; Marcus M. Matos, OTS; Helen Medina, OTS; Romy Rios, OTS; Tana B. Carson, PhD, OT

Florida International University, Master's of Science in Occupational Therapy

## Background

Children with autism spectrum disorder (ASD) are twice as likely to drown than their peers (Schendel, 2016) due to wandering and attraction to water (Hester, 2020).

There's a lack of tailored water safety education materials.

This project revised a water safety book and created a new assessment for children with ASD, aiming to fill that gap.

Social Cognitive Theory guided the study.

## Methods

### Participants

Recruited from a local rehab center (n = 2)

Licensed clinician, 18+, fluent in english, treating children with ASD, and comfortable with digital resources.

### Instrumentation

**Eligibility survey:** ensure inclusion and exclusion criteria is met. Ends with informed consent form.

**Satisfaction survey:** fill out demographic information and opinions on book and assessment after reviewing them.

### Intervention

The water safety book with narration is acting as the intervention in this study but we are not directly determining the effectiveness of the book in this study.

### Procedure

1. Used parent input and own critiques to edit existing book created by previous Florida International University faculty and student.

Before:



1. Assessment was created solely by current research team.
2. Two weeks to review the narrated book and assessment, then completed surveys. Reminder email sent one week into the study.

## Results

| Demographics        |                      |                      |
|---------------------|----------------------|----------------------|
| Participant         | 1                    | 2                    |
| Age                 | 21-30                | 31-40                |
| Gender              | Female               | Female               |
| Ethnicity           | Latino/a or Hispanic | Latino/a or Hispanic |
| Type of clinician   | Speech Therapist     | Speech Therapist     |
| Years of Experience | 6-10                 | 1-5                  |

| Quantitative Data                                                                                   |                  |                   |
|-----------------------------------------------------------------------------------------------------|------------------|-------------------|
| Question                                                                                            | Participant 1    | Participant 2     |
| Do you believe that this book would increase a child's understanding of water safety concepts?      | Definitely yes   | Probably yes      |
| How suitable do you believe this book is for children with autism?                                  | Very Suitable    | Somewhat suitable |
| How well did the assessment accurately evaluate the child's understanding of water safety concepts? | Very well        | Well              |
| How likely would you be to use this assessment with children with autism in the future?             | Extremely likely | Extremely likely  |

| Qualitative Data                                            |                                                                            |               |
|-------------------------------------------------------------|----------------------------------------------------------------------------|---------------|
| Question                                                    | Participant 1                                                              | Participant 2 |
| What would you change about the book's written content?     | "Have less text on page. Prefer more pages with less text on each page."   | "N/A"         |
| What would you change about the assessment's illustrations? | "highlight issues/problem presented in the image so it is more noticeable" | "Less busy"   |

### Sample book page to support qualitative feedback



### Sample assessment page to support qualitative feedback



## Discussion

Clinicians viewed both tools as valuable for children with ASD.

Feedback supports their potential use in clinical settings.

The study helps fill a gap in water safety education tools designed for this population.

Despite a small sample size, our study is well-rounded and supported by positive feedback from earlier studies.

**Limitations:** Small sample size, no in-person interactions by researchers, similar participant demographics, and lack of assessment for long-term retention. Also, out of 8 consenting individuals, only 2 people fully participated in the study.

## Conclusion

Clinician feedback supports the value of our revised water safety book and original assessment. Though further research is needed, these tools show promise for improving water safety education for children with ASD.

## Acknowledgements

Tania Santiago-Perez, MS, CTRS  
Aida Piedra, BS, CTRS

## References

