

Aquatic Therapy Programming for Individuals with Autism

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Founder and Executive Director at
Rec2Connect

About Jen Knott and Rec2Connect

- Jen is a Recreation Therapist that specializes in aquatic therapy and community based recreation therapy
- Prior experience includes: Aquatic Therapy Student at Hattie Larlham, In home Applied Analysis Aide through Cleveland Clinic Center for Autism, Classroom Behavior Therapist at Cleveland Clinic Center for Autism, Recreation Therapist at Cleveland Clinic Children's Hospital for Rehabilitation,
- Started Rec2Connect in 2009 with 2 families
- Provide a variety of recreation therapy and aquatic therapy services throughout Northeast Ohio communities
- Services are an extension of inpatient and outpatient therapies
- Work hand in hand with PT, OT, SLP and schools to assist in carryover of skills and current therapy goals
- We work out of area recreation centers, adult day programs and schools



Mission:

To utilize fully inclusive recreation therapy programs to connect people of all abilities and their families to community recreation, wellness, and lifelong leisure skills

Definition of Recreation Therapy



- "Recreational therapy, also known as therapeutic recreation, is a systematic process that utilizes recreation and other activity-based interventions to address the assessed needs of individuals with illnesses and/or disabling conditions, as a means to psychological and physical health, recovery and well-being." (ATRA, 2023)
- Recreation therapists assess, design, implement and document on individuals' progress
- Programming is highly individualized and uses recreation programming as the treatment method
- Address recreation needs and skills, as well as physical, social, cognitive and emotional needs
- Recreation therapists assist in eliminating barriers to recreation participation
- Skills are intended to be carried over into other aspects of participant's life

Aquatic Therapy

- The Aquatic Therapy and Rehab Institute defines aquatic therapy as “the use of water and specifically designed activity by qualified personnel to aid in the restoration, extension, maintenance and quality of function for persons with acute, transient, or chronic disabilities, syndromes or diseases” (ATRI, 2023)
- Goal driven activities to address specific needs of clients
- Use of water to address skills that can be transferred to land
- Can be combined with teaching swim skills
- Decreases reaction time and allows for additional processing time for motor movements
- Provides calming environment



Properties of the water



- Buoyancy
- Resistance
- Hydrostatic pressure

Individuals with autism often are drawn to water, lacking the safety awareness and skill set to be successful without a multifaceted and individualized approach



Need for Swim Safety Skills at a Young Age

- Research completed at Columbia University's Mailman School of Public Health
- Individuals with autism have a tendency to wander and are drawn to water
- Children with autism are 160 times as likely to die from drowning as the general pediatric population(Guan and Li, 2017)
- Dr. Li, who is the founding director of the Center for Injury Epidemiology and Prevention at Columbia. "Once a child is diagnosed with autism, usually between 2 years and 3 years of age, pediatricians and parents should immediately help enroll the child in swimming classes, before any behavioral therapy, speech therapy, or occupational therapy. Swimming ability for kids with autism is an imperative survival skill."
- Combination of aquatic therapy at a young age with safety precautions in place within the home can assist in prevention of drowning

Need for Physical Activity across the Lifespan

- Individuals with autism often are not engaging in same amount of physical activity and sport as peers
- Difficulties in movement skills can have long term effects on emotional, social, and behavioral development(Pan, 2010)
- Leads to decreased engagement over the lifespan in physical activity
- Difficulty finding motivating physical activities for individuals with autism
- Utilize interests of individual to prompt physical activity
- Swimming is a lifelong skill that can be completed independently and for leisure with family and friends

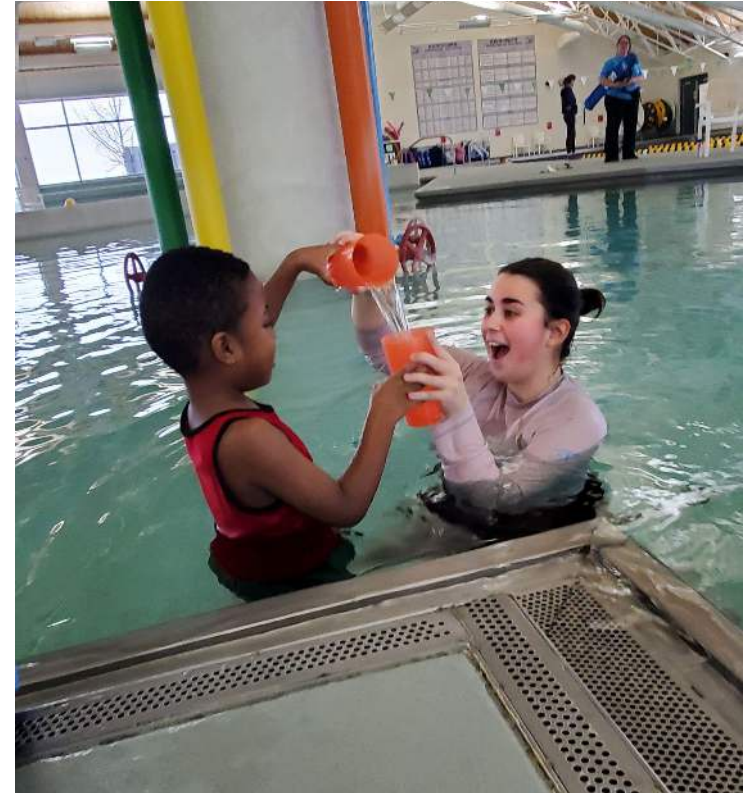


Barriers to Community Aquatic Programming

- Address Motor Deficits**
- Programming Barriers**
- Assist with Behavioral
and Sensory Needs**

Indications for Aquatic Therapy

- Hyperactivity
- Sensory seeking and/or sensory deficits
- Motor deficits
- Hypotonia
- Body awareness
- Behavioral regulation
- Communication and social skills
- Balance
- Safety
- Lifelong leisure skill development



Overview of Approach

- **Individualized**

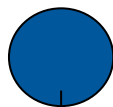
Meet participants where they are

- **Goal Driven**

Assess Needs and set goals

- **Life Long Skills**

Skills introduced in preferred setting
to carry over in many aspects of life



ASSESSMENT

1. Parent assessment
2. Prior therapy records
3. Comprehensive Evaluation Recreation Therapy(CERT)-Physical
4. Rec2Connect Swim Level Evaluation

PLANNING

1. Create list of needs/goals
2. List all strengths, preferences, adaptations to programming
3. Create detailed treatment plan
4. Plan weekly activities to satisfy all goals

IMPLEMENTATION

1. Client is seen in weekly 1:1 or group settings
2. Implement a variety of activities in structured environment
3. Provide adaptations as needed

DOCUMENTATION

1. Record weekly data in online system
2. Data review and goal progression frequently
3. Progress tracked and programming adjusted week to week as needed
4. Re-assessments completed yearly, or as needed in line with goal progression

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What skills can you work on in an aquatic therapy session?



The possibilities are endless with a little creativity!

Gait

ROM

Crossing
midline

Balance

Following
Directions

Reciprocal use
of UE

Core Strength

Sensory
Regulation

Communication

Body
Awareness

UE Strength

Using UE/LE
at same time

LE Strength

Gross Motor
Skills

Core Strengthening



Motor Skills and Strength



Using UE/LE at same time



Sensory Stimulation



Sensory Activities





Meet Donovan.

Donovan started with Rec2Connect at age 5 in Aquatic Therapy. He was drawn to the water, lacked safety awareness, and motor planning skills involved in swimming. He demonstrated high sensory seeking needs, often prohibiting his ability to focus throughout session.



Set Therapeutic Goals

Donovan's Goals Consisted of:

1. Using UE/LE at same time
2. UE Strength
3. Crossing midline
4. Core Strength
5. Reciprocal motion in UE
6. Eye/hand coordination
7. Body awareness and balance

Set Swimming Goals

Donovan's Goals Consisted of:

1. Grasping side of pool wall
2. Bubbles/Breathe Control
3. Floating on back
4. Transitioning from belly to back
5. Kick feet using flutter kick
6. Entering/exiting the water

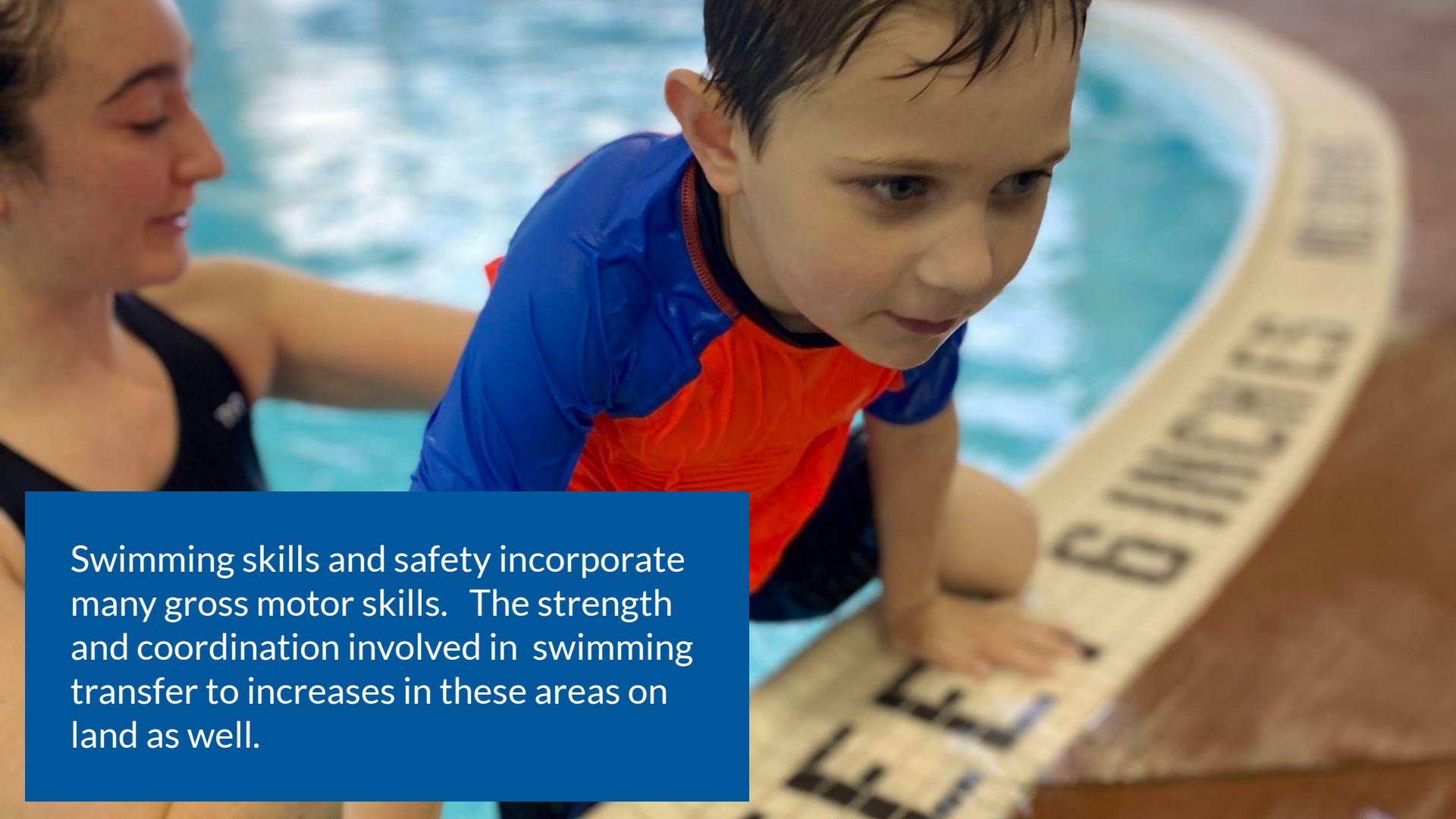


Lifelong Skill Development

Donovan has progressed over the years tremendously! He swims weekly on our Razorsharks swim team and competes at USA Swim Meets!







Swimming skills and safety incorporate many gross motor skills. The strength and coordination involved in swimming transfer to increases in these areas on land as well.



**Make gross
motor skills
fun and
sensory
packed!**

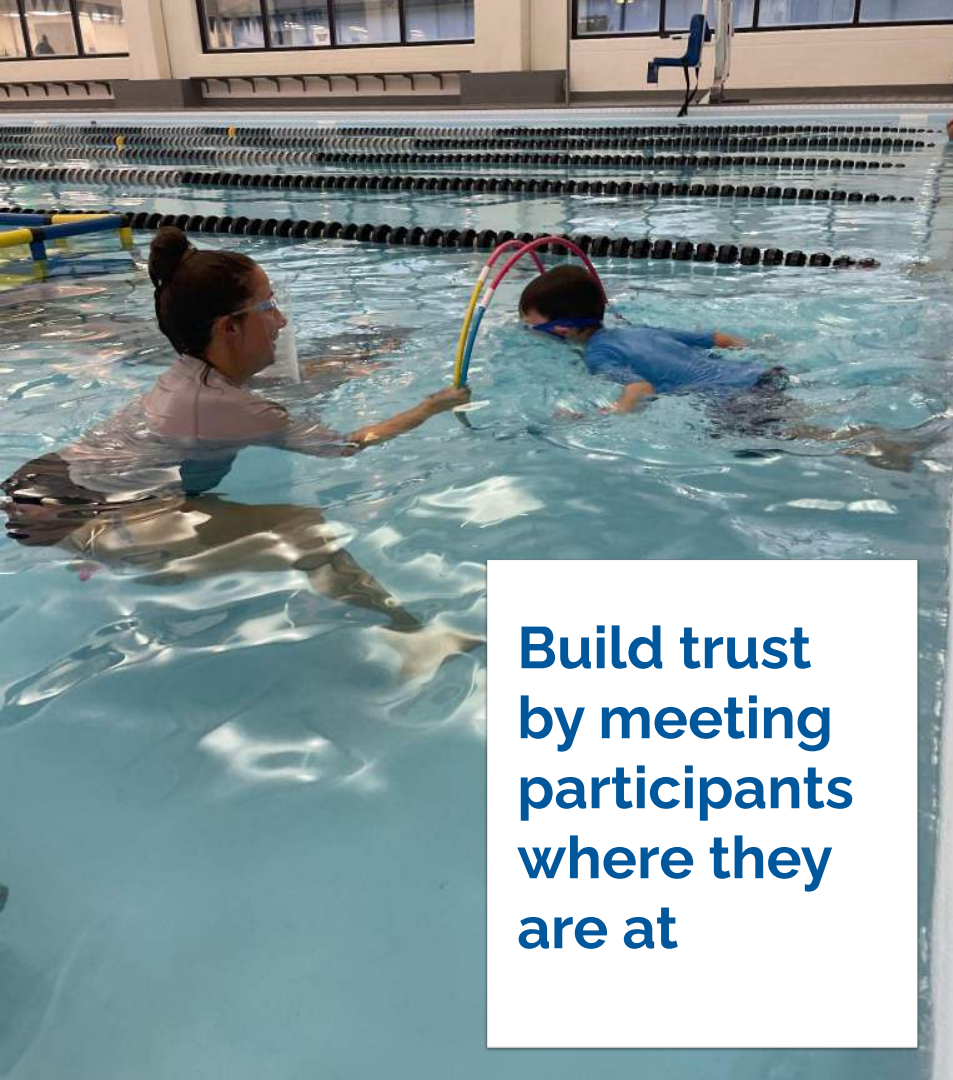
**Simple swimming
activities transfer to
land based gross
motor skills**

**Teach swim safety
skills, communication,
and body awareness**



**Desensitizing
Equipment and
introduce new sensory
experiences**





**Build trust
by meeting
participants
where they
are at**

Alleviate fear and anxiety

- Play with water on side of pool
- Ride on floatation device
- Pour water over arms, legs, head
- Submerge involving play

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**Build confidence and
boost self esteem!**



Impact on lifelong health and wellness

→ **Increase Strength and ROM**

Transfer to ADLs and life skills

→ **Increase Physical Activity**

Promoting healthy and active lifestyle

→ **Decrease likelihood of drowning**

Saving lives by starting at a young age

→ **Decrease obesity and sedentary lifestyle**

Increasing life expectancy and decrease likelihood for lifelong medical conditions

→ **Opportunity for social activities**

Community outings with family and friends

Just keep swimming!



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**[Rec2Connect - Recreation Therapy for People of All
Abilities](#)**

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