

HOW DO I KNOW A CHILD IS READY FOR POWER MOBILITY?

Michelle L. Lange, OTR/L, ABDA, ATP/SMS



What we will be covering:

- Determining Readiness
- Goal: Preparing for a Power Wheelchair Evaluation



Power Wheelchair Recommendations

- When recommending a power wheelchair, the following features must be considered:
 - Driving method
 - Seating system
 - Drive wheel configuration
 - Power seating



Before you pick out colors...

- Prior to looking at product, we need to ensure the client is ready
 - Motor readiness
 - Can the client use a power wheelchair driving method
 - Cognitive readiness
 - Does the client understand mobility concepts required to use a power wheelchair?
- This applies to first time drivers
 - Often children



What if the client isn't ready?

- Many folks are concerned about any criteria that may limit provision of mobility
- If we determine that a client is not yet “ready”, we step in and develop those skills – next webinar!
- Goal – successful mobility, not a coat rack in the garage



Is Mobility that big a deal?

- Research clearly indicates that early independent mobility increases:
 - Cognitive skills
 - Psychosocial skills
 - Vision and visual perceptual skills
 - *AbleNet webinar



How do I back that up?

- RESNA Position Paper on Pediatric Mobility
 - www.resna.org
 - www.atilange.com under Resources
- Compilation of expert opinion and very comprehensive listing of research
- Recently updated



Barriers to Moving Forward

- Someone on the team wants to hold off on exploring power mobility...
 - Concerns about motor development
 - Concerns that the child can use other mobility if we just wait a bit longer
 - Concerns about funding



Barrier #1

- “If this child gets a power wheelchair, they will never walk...or use their other mobility equipment...or get lazy”
 - Kids who use a power wheelchair are MORE likely to attempt any other form of mobility
 - The child will not become lazy



Barrier #2

- “Wait, I’m not done with therapy yet”
 - A power wheelchair is not a failure of therapy, just another tool to provide independent mobility



Barrier #3

- “no one will fund a power wheelchair for this child...they are too young...the school has no money”
 - Funding is not as hard as you think, with a comprehensive evaluation and proper documentation
 - Work with the supplier



Common School Scenario:

- Ok, I get it. I think this student could use a power wheelchair, but I'm not sure how to determine if he is ready for the "big evaluation"...



Determining Readiness

- Motor Readiness
 - Access Method
- Cognitive Readiness
 - Mobility Concepts

Are
you
Ready?

Determining Motor Readiness

- Can the student access a joystick?
 - Directional control
 - Timed and consistent release
 - Joystick use requires grading of the force and distance of movement
 - Difficult for clients with abnormal muscle tone



Determining Motor Readiness

- Can the student access at least 3 switches volitionally?
 - Any switch locations
 - Any switch types
 - Sustained contact
 - Timed and consistent release



Determining Motor Readiness

- It is possible to drive with only 1-2 switches, but we want to develop the ability to use more, if possible, to optimize future driving
- 3 switches provide Forward, Left and Right
- Reverse (or reset) can wait at this point



Questions?

Cognitive Issues

- See Criteria Handout
- Cause and effect
- Stop and go concepts
- Directional concepts
- Judgment
- Problem solving
- Following directions
- and ... Motivation

Cause and Effect Concepts

- The client realizes that activating the access method is causing movement of the power wheelchair
- Measure: verbal or non-verbal expression



Stop and Go Concepts

- The client realizes that activating the access method is moving the power wheelchair and that releasing the access method stops that movement
- Measure: verbal, following directions to Stop and Go or stopping for obstacles. Does not require accuracy.



An example

- In this video, Brett is beginning to realize that pressing a switch moves the wheelchair
- He is not showing Stop and Go yet

Directional Concepts

- The client realizes that the power wheelchair will move in different directions, depending on how the access method is used.
- Measure: the client responds verbally or non-verbally to different movement caused by different input or attempts to move to a location using different directional commands.



Judgment

- The client demonstrates developmentally appropriate judgment
- Measures:
 - the client recognizes obstacles and attempts to avoid
 - the client is not aggressive
 - the client demonstrates caution



Problem Solving

- The client demonstrates developmentally appropriate problem solving during driving
- Measure: the client will maneuver the power wheelchair to a designated destination without cues



Following Directions

- The client demonstrates the ability to follow directions while driving
- Measure: the client will follow directions such as Stop, Go and Come Here

Motivation

- Motivation is important, too



Questions?

There is a lot you can do without a power wheelchair!

- We can use strategies that we have already discussed to Screen the child, gather more information about readiness and pass that along to the evaluation team

Mobility Screening

- My favorite strategy:
Place the child in their current dependent mobility base
Make sure they are well positioned
Determine a good switch site (how do I choose the best site?)
Place a switch there (how do I choose the best switch?)
Explain what you are going to do...
Stay calm, be happy!



Mobility Screening

- When the child activates the switch, push the mobility base
- Start with Forward
- Add a turn when ready (second switch)
- Add a second turn if they can do it
- Guess what? You can now inform the evaluation team that you have a pretty good idea if the child can drive and where the driving method needs to be!



Mobility Screening with a MWC

- Colton
- 3 videos



Mobility Screening with a MWC

- Colton
- 2 videos



A New Alternative!

- Stealth Products
- iDrive 4.0
- Use with battery pack for simulation on child's own mobility base
- When the child activates the driving method, move the chair



Questions?

Take Home Message:

- Some kids hop in a power wheelchair and start driving immediately
- Other children need time and training to develop the skills required prior to a power wheelchair assessment
- Many strategies can be used to determine and develop readiness

Next Time:

- How do I develop readiness for power mobility? 9/17/19
- How do I train a child who has a power wheelchair to be a better driver?
11/19/19

Resources

- Access to Independence Website
 - www.atilange.com
 - Indoor Power Mobility Criteria

Thanks!

Contact Information

Michelle L. Lange, OTR/L, ABDA, ATP/SMS

www.atilange.com

MichelleLange1@outlook.com

Power Wheelchair Criteria – Indoor

Client Name: _____

Date of Evaluation: _____

The following are criteria to help determine if a client is appropriate for a power wheelchair. If a client is able to demonstrate the following criteria during an initial assessment and/or during any other subsequent training sessions, a power wheelchair is deemed appropriate. If the client only meets some of these criteria, training guidelines will be provided to the family/caregivers to help develop these skills. The intention of this tool is to provide as appropriate a recommendation as possible for the client.

_____ The client demonstrates Cause and Effect concepts in the power wheelchair.
Demonstrated by: the client realizes that activating the access method (i.e. a switch) is causing movement of the power wheelchair. This may be communicated verbally or by expression.

_____ The client demonstrates Stop and Go concepts in the power wheelchair.
Demonstrated by: the client realizes that activating the access method (i.e. a switch) is moving the power wheelchair and that releasing the access method stops that movement. This may be demonstrated verbally, by following directions to “Stop” and “Go”, or stopping consistently for obstacles.

_____ The client demonstrates Directional concepts in the power wheelchair.
Demonstrated by: the client realizes that the power wheelchair will move in different directions, depending on how the access method is used. For example, moving the joystick in another direction or activating different switches for different directions.

_____ The client demonstrates the ability to follow directions while driving the power wheelchair.
Demonstrated by: the client will follow directions such as “Stop”, “Go” and “Come Here”.

_____ The client demonstrates adequate judgement for their age while driving the power wheelchair.
Demonstrated by: the client recognizes obstacles and attempts to avoid these, the client does not show signs of aggression with the power wheelchair and the client demonstrates caution.

_____ The client demonstrates adequate problem solving for their age while driving the power wheelchair.
Demonstrated by: the client will maneuver the power wheelchair to a designated destination without verbal cues. For example, “drive to the stuffed animal.”

_____ The client demonstrates adequate functional vision to safely drive the power wheelchair.
Demonstrated by: visual attention to the environment and the ability to recognize and avoid obstacles.

_____ The client is able to use an access method with adequate activation, sustained contact and release.
Demonstrated by: the client is able to consistently and accurately activate access method (i.e. switch), sustain contact as needed, and release to stop while driving the power wheelchair. The client demonstrates adequate endurance and consistency of motor control.
Access Method recommended: _____

Once a client has demonstrated competence in these areas, indoor driving is considered appropriate. Outside driving requires further skills. Please refer to the Power Wheelchair Criteria - Outdoors checklist for more information.

_____ Mobility Training recommended to develop skills needed to recommend a power wheelchair

_____ Mobility Training recommended to optimize driving skills after power wheelchair delivery