

Belmont University

Belmont Digital Repository

OTD Capstone Projects

School Of Occupational Therapy

Spring 4-14-2020

"Mommy & Me" Constraint Therapy at Monroe Carell Jr. Children's Hospital at Vanderbilt

Logan Herndon

logan.garman@pop.belmont.edu

Follow this and additional works at: <https://repository.belmont.edu/otdcapstoneprojects>



Part of the [Occupational Therapy Commons](#)

Recommended Citation

Herndon, Logan, "'Mommy & Me' Constraint Therapy at Monroe Carell Jr. Children's Hospital at Vanderbilt" (2020). *OTD Capstone Projects*. 10.

<https://repository.belmont.edu/otdcapstoneprojects/10>

This Scholarly Project is brought to you for free and open access by the School Of Occupational Therapy at Belmont Digital Repository. It has been accepted for inclusion in OTD Capstone Projects by an authorized administrator of Belmont Digital Repository. For more information, please contact repository@belmont.edu.



“Mommy & Me” Constraint Therapy at Monroe Carell Jr. Children’s Hospital at Vanderbilt

Logan Herndon, OTS

Faculty Mentor: Sue Iliff, PhD, OTR/L; Expert Mentor: Stephanie Frazer, MOT, OTR/L
Belmont University, School of Occupational Therapy



Mission and Vision

- **Mission:** The goal of High Five Camp is to improve function of the affected limb with constraint-induced movement therapy (CIMT) in a week-long camp environment, that enables kids to have fun, be with peers, and increase their quality of life.
- **Vision:** To reach more kids with hemiplegia in the Nashville area for increased participation and to allow kids to be kids.

Needs of Vanderbilt

- Development of a modified CIMT program for children 2-4 years old, who do not meet the age requirements for High Five Camp participation
- Curriculum development for a modified CIMT for younger children
- Parental education for carryover of therapeutic activities to the home setting, including a home activities workbook

Literature Review

CIMT was originally used with adults who had suffered a stroke, resulting in unilateral hemiplegia. This intervention has expanded to children with hemiplegia who may experience “developmental disregard” for their affected upper extremity. Developmental disregard occurs when normal motor functions of the affected limb were never established due to congenital hemiparesis (Brady & Garcia, 2009). The basic principles of pediatric CIMT are based in motor learning theory that focuses on shaping, repetitive practice, and reinforcement (Deluca, Ramey, Trucks, & Wallace, 2015). There is varying evidence on the practice guidelines around pediatric CIMT, but the consensus is a modified program should be used for children, including alternative casting methods, variable lengths of constraint period, or location of intervention (Brady & Garcia, 2009).

Goals of the Experiential Component

- Develop advanced skills in clinical excellence, program development, leadership, and advocacy
- Provide resources for Vanderbilt to implement a CIMT program in the future
- Enact change in the Nashville community that benefits others through care, service, and social responsibility

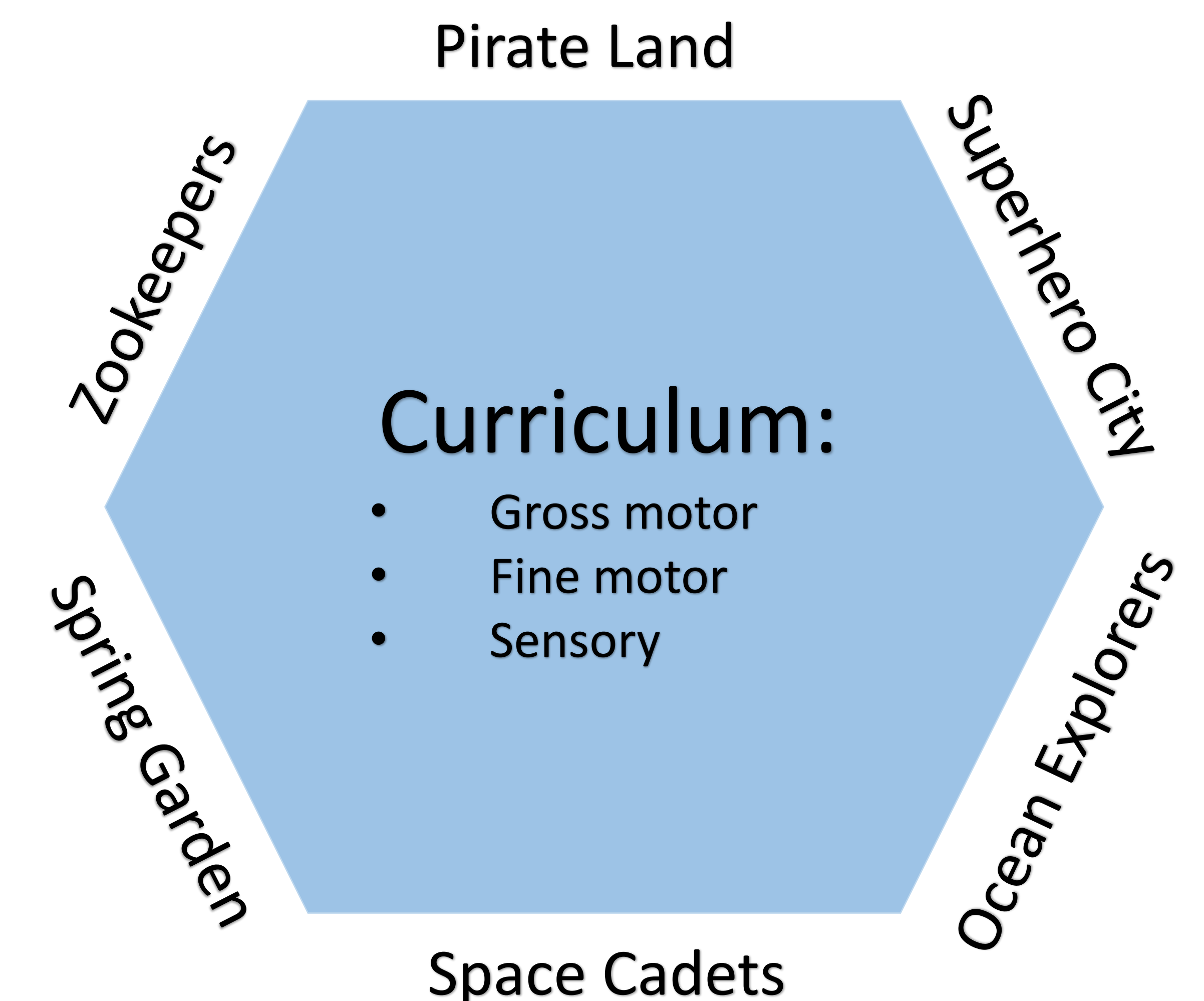
“Mommy & Me” CIMT Process

- Eligible participants will be recruited with a promotional handout
- Inclusion criteria:
 - Patient at VUMC with current OT evaluation and orders
 - 2 and 3 year old children with hemiplegia
 - One caregiver able to be present for each therapy session
- Cast child’s unaffected arm for 14 days for unimanual activities, followed by 7 days without casting for bimanual activities
- Attend group therapy sessions 2x/week for 2-3 hours each.
- Caregivers implement home activities at least 2 hrs/day
- Caregivers complete questionnaire and COPM before and after intervention to measure outcomes



Outcomes

1. Conducted a literature review focused on modified CIMT programs for children under 4 years old
2. Created promotional handout for participant recruitment and educational handout for CIMT expectations
3. Developed curricular themes for 6 group therapy sessions:



4. Created a home activities manual and reward chart for caregiver implementation
5. Developed qualitative survey and researched quantitative survey (COPM) to measure program outcomes

Acknowledgements

I would like to thank Dr. Iliff at Belmont University, as well as Stephanie Frazer, for all of their assistance and guidance with this project. I would also like to thank Monroe Carell Jr. Children’s Hospital at Vanderbilt for providing me with this opportunity and resources to complete this project.