The multifactorial purpose of the capstone project was to educate clinicians at the CAY center about retained primitive reflexes while also developing an interdisciplinary primitive reflex screening tool for clinicians to implement during assessment and reflex integration exercises to use if a child does present with retained reflexes.

**OVERVIEW OF CAPSTONE SITE**

According to the facility website, The Center for Advancement of Youth (CAY) offers comprehensive, coordinated care through an interdisciplinary team for children with behavior or developmental issues who live in Mississippi. The goal of the CAY center is to ensure that no child suffers from lack of appropriate behavioral or developmental treatment. The population overview at the CAY center consists of children ages birth through 25 who have a developmental delay, or neurodevelopmental disability. Common diagnoses treated at the CAY center consist of ADHD, ASD, and behavioral deficits. The CAY center also facilitates grant funded projects in order to integrate evidenced based practice into everyday treatment (Center for the Advancement, n.d).

**NEEDS ASSESSMENT**

The Phase I Needs Assessment took place on 6/22/20. A semi-structured interview guide was used to meet with the capstone mentor and discuss potential needs at CAY. Upon arrival to the CAY center on 2/22/21 the same needs were no longer identified. At this point, an informal Phase II Needs Assessment followed after arriving in-person on site. The Phase II Needs Assessment consisted of multiple in-depth conversations with pediatric providers ranging from developmental pediatrics, child psychologists, speech therapists, and occupational therapists. Multiple needs were identified at this point. The ultimate decision for the topic of the capstone project came from the identification of a need relating to a gap in research in the therapy department. The need identified related to a lack of research and tools related to primitive reflexes and retained primitive reflex integration.

**PROJECT GOALS / OBJECTIVES**

1. Identify primitive reflexes and the role they play in normal development
2. Recognize risk factors for primitive reflex retention
3. Distinguish the effects retained reflexes have on proper development
4. Understand and implement primitive reflex screening into client centered treatment and evaluation
5. Understand the incorporation process of retained reflexes

**PROJECT DEVELOPMENT**

- Compiled an educational presentation to educate clinicians at the CAY center on relevant literature related to retained primitive reflexes.
- Developed a Primitive Reflex Screening Tool for providers to use during assessment.
- Created reflex integration activities for clinicians to use after reflex retention has been identified.

**PROJECT EVALUATION**

- Piloted the primitive reflex screener on four patients at the CAY center over the course of multiple weeks
- Adjusted Primitive Reflex Screening Tool for efficiency based off of results during the pilot phase.

**PROJECT SUMMARY AND FUTURE RECOMMENDATIONS**

The capstone project aimed to educate clinicians about retained primitive reflexes and equip providers with the tools to evaluate for retained primitive reflexes in their personal clinical practice in the future. Tools created include a primitive reflex screener and integration exercises for each retained reflex.

Further research could include: continuing to collect data on number of children with retained reflexes at the CAY center, documenting the success rate of reflex integration by using the tools provided (Integration exercises), educating physicians about retained primitive reflexes throughout Mississippi, and distributing the primitive reflex screener to physicians or other clinical providers in Mississippi outside of the CAY center.

**Example Pre-test Results**

- Q6 - How likely are you to integrate a primitive reflex screener into your assessment process?  
  - Pre-test: 40% Yes, 60% No
  - Post-test: 70% Yes, 30% No

**Example Post-test Results**

- Q6 - How likely are you to integrate a primitive reflex screener into your assessment process?  
  - Pre-test: 40% Yes, 60% No
  - Post-test: 70% Yes, 30% No

Special thank you to Dr. Elkin, capstone mentor at the Cay center, and to all the clinicians at the CAY center for their time throughout the entirety of the capstone experience.