Culminating Project in Clinical Practice Skills and Program Development: Nova Southeastern University

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Capstone Final Culminating Project

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Abstract

Simulation learning is an online resource that is currently being used in healthcare graduate school programs. It does not replace real-life experience but can provide a controlled environment for students to learn from their mistakes and be better prepared for their rotations. There is a greater need for pediatric simulation learning opportunities, especially during a pandemic. This capstone final culminating project describes how an outpatient pediatric clinic and Simucase, an online simulation video resource, collaborated to create more simulation and video library recordings. Online evidence-based resources can help create better opportunities for students to observe, assess, and analyze during therapy sessions with patients and family members.

Keywords: simulation learning, pediatric, occupational therapy, interdisciplinary approach
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Introduction

My capstone experience had two ACOTE focus areas of clinical practice skills and program development. I was at an outpatient pediatric clinic called Progressive Pediatric Therapy for Kids (PPT4Kids) in Boca Raton, Florida. My mentor is certified in sequential oral sensory (SOS) approach and was also interested in AAC implementation during OT treatment sessions. I had the opportunity to learn more about the evaluation and treatment process with kids needing feeding therapy and using AAC devices to communicate. PPT4Kids is a clinic that offers occupational therapy, physical therapy, and speech therapy services. Simucase, an online resource that provides interaction simulation videos for healthcare graduate students, collaborated with PPT4Kids to record footage of pediatric therapy sessions. My capstone project was to be the coordinator and assist with creating online simulation videos for healthcare graduate students. With my knowledge in feeding and AAC device implementation, I was able to work with therapists as they planned for sessions to record for Simucase.

Literature Review

The implementation of simulation learning for educational purposes is increasing in health care professional programs (Betha, Castilla & Harvison, 2011). Simulation is a technique that provides users a guided interactive experience that helps elicit or replace important parts of real-world scenarios (Lateef, 2010). A medical simulation is defined as, “a person, device, or set of conditions which attempts to present [education and] evaluation problems authentically. The student or trainee is required to respond to the problems as he or she would under natural circumstances. Frequently the trainee receives performance feedback as if he or she were in the real situation” (McGaghie & Issenberg, 1999, p. 7). Simulation-based learning started in the late
1960s with full-body mannequins for anesthesia students in the University of Southern California. It has now broadened its horizons to numerous other fields and can be a huge benefit for gaining knowledge while still protecting patients from unnecessary risks. (Lateef, 2010).

This literature review will offer information about the need for simulation resources for students in occupational therapy programs. This information investigates the preparedness of students going into their fieldwork and the growing competitive nature of finding placements for students. This review will discuss the different types of simulations and the benefits of implementing them into graduate program curriculums. It will also explore the specific subsection of pediatric simulations and how it can be useful for training students for real life situations. There is currently a growing need for distance learning resources as the impacts of coronavirus has created occupational disruption for faculty and students. Simulation learning can be the additional resource to help improve traditional didactic approaches for students in health care professional programs, especially during the restrictions under a global pandemic creating the need for change in education.

**Preparedness for Fieldwork**

Educators are responsible for preparing students to go out on fieldwork throughout their didactic coursework. When students are at risk for falling behind, professors can give advice and guide their students towards success. Simulation learning is an instrumental tool that can provide additional feedback for students to receive from realistic situations (Giles, Carson, Brelan, Coker-Bolt, & Bowman, 2014). It is the connecting factor that combines the benefits from traditional academic coursework, case studies, and real-life practice (Velde, Lane, & Clay, 2009). A study reports that students find simulated patient feedback just as valuable as feedback from their educators (McLaughlin, Gregor, Jones, & Coderre, 2006).
When implemented with coursework, simulation experiences can provide constructive teaching to help students become active learners (Giles et al., 2014). It coaches students to become transformational learners by taking new knowledge and interventions as they engage in progressive simulated experiences. Students are also able to have experiential learning as they apply textbook information to simulated clinical encounters (Giles et al., 2014). For example, learning about an assessment by reading the manual versus administering it to a simulated patient will add tangible knowledge that will be advantageous towards a level II fieldwork. Lastly, after simulated patient encounters, students that engage in reflective practice will have the opportunity to achieve higher-level thinking by taking the time to pause and think about their attitudes and perspectives of their behaviors and skills (Giles et al., 2014).

Fieldwork Placement

With an increase in health care professional students in need of clinical hours and an increase in workload for health care professionals, it can be a struggle to find placements to meet program accreditation requirements. Additionally, supervisors may be limited with the time they invest to engage with students due to other priorities that need their attention (Imms et al., 2017). Simulations can provide students with consistency in content delivery in numerous different settings and patient diagnoses (Imms et al., 2017). There is a higher probability of a decrease in clinical error with simulations because it allows students to repeat learnt experience and correct any mistakes before working with real patients. It provides more opportunities for students to reflect, improve, and develop treatment approaches with greater outcomes. (Lateef, 2010).

Simulation Learning

There are two categories of simulations: low-fidelity simulation (LFS) and high-fidelity simulation (HFS) (Ozelie, Both, Fricke, & Maddock, 2016). LFS can be in the form of a case
study or a basic mannequin that is incapable of providing feedback. They are more cost effective, but do not provide an experience that is similar to a real-life setting (Ozelie et al., 2016). HFS are more realistic and are a better representation of a professional situation in a controlled environment. Some examples of HFS include using a sophisticated technological mannequin and a standardized patient encounter using a live actor (Ozelie et al., 2016). The use of HFS can increase health care professional students’ ability to communicate, analyze, and problem solve when working with patients (Richardson & Claman, 2014).

Bethea et al. (2014) identified the different types of simulations that are being used for occupational therapy programs—standardized patient simulation, human patient simulation, computerized software simulation, virtual reality simulation, and simulated training equipment. Standardized patient simulation is when people role plays as the patient of family members. Human patient simulation is the use of low-fidelity or high-fidelity mannequins that respond with realistic physiological reactions (Bethea et al., 2014). Computerized software simulations use simulated cases with online programs that require students to make decisions and develop skills and provide feedback. Virtual-immersive reality simulation uses a virtual reality that projects the user into the computerized environment (Bethea et al., 2014). Simulated training equipment is used to teach students a skill related to a specific equipment, such as a driver simulation (Bethea et al., 2014).

**Pediatric Simulation**

It is important for occupational therapy students to prepare to work with patients with disabilities of all ages. Health care professional students who received exposure to working with pediatric patients diagnosed with autism using simulation-based tutorials had positive feedback about their experience (Lewis, Rudd & Mills, 2018). The students shared that it was resourceful
to observe how a therapist would respond to the behaviors of a child with autism within a real-life situation. It was also found that the students appreciated an interprofessional approach when they saw the interactions of a speech therapist and occupational therapist working with the child (Lewis, Rudd & Mills, 2018). These students reported that additional informational background on the diagnosis of autism and intervention strategies, including feedback, would have been helpful with improving their confidence for future interactions with patients (Lewis, Rudd & Mills, 2018).

When developing an authentic clinical simulation for effective listening and communication in the pediatric rehabilitation service delivery, it was found that the process had to be evidence-based (King et al., 2016). The three focus areas when developing the simulations to reinforce student learning included clinical variation, simulation fidelity, and cognitive interactivity. Through this process, it was found that background information about the patient, description of the roles of each individual, and expertise for filming were all important factors that would help to improve and expand the use of simulations for educational purposes when catered to students in rehabilitation programs learning about the area of pediatrics (King et al., 2016).

**Impacts of COVID-19**

COVID-19 has caused disruptions and occupational imbalance for people nationwide. Healthcare professional students were impacted in all countries, including occupational therapy students. With quarantine rules and strict regulations in place at healthcare facilities, programs had to immediately take on distance learning to prevent delays in graduation. Students and educators in Cebuano, Philippines were not only concerned about their health, safety, and well-being, but had to cope with the uncertainty of the future (Bulan & Lagria, 2020). COVID-19
disrupted students’ plans, timeline, and occupation. All educational classes were forced to switch to an online platform creating new concerns of arranging alternative modes of teaching client service delivery (Bulan & Lagria, 2020).

An educator in the Palestines discussed the challenges he faced to find and create alternative methods using distance learning to prepare students to become well-equipped occupational therapists during COVID-19 (Asaaf, 2020). The students of his course worked as a group to discuss goals and intervention strategies by having to think outside of the box. It was reported that it was difficult for students to find evidence-based resources to help analyze and problem solve for clinical scenarios (Asaaf, 2020). This pandemic created a greater need for efficient and safe ways to develop assessment and intervention methods in a virtual context that is accessible to all. (Bulan & Lagria, 2020).

Conclusion

This literature review provides information regarding the impacts of COVID-19 on occupational therapy students and how simulation learning can positively impact health care programs during the pandemic. Simulation is currently a growing tool to help train and equip healthcare professional students to work with real-life patients. Current literature illustrates the growing demands of healthcare professionals and describes the ways in which simulations can provide helpful feedback to students by creating realistic settings. With patient safety being a high priority, simulation can be a useful approach to replicate a controlled environment that will prepare students for the demands of their fieldwork rotations. The following section will explain the current needs of healthcare professional students and how my capstone project will work towards improving accessibility of evidence-based online simulation resources.
Needs Assessment

Based on the reviewed literature, there is a current need for online educational resources for occupational therapy students. With the current pandemic and restrictions in place at hospitals or clinical settings, it can place further difficulty for students to have in-person experience. Clinical interactive simulation learning is not only beneficial to students during a pandemic but can help prepare for fieldwork as well. By providing a safe and controlled environment, students can learn from their mistakes and reflect without increasing workload for supervising therapists and putting patients at risk. Educators can use simulation learning to help facilitate discussions during online courses and prepare students for their rotations. My Capstone Project will help fill this gap of need by creating simulation videos of therapists working with the pediatric population at an outpatient clinic.

Progressive Pediatric Therapy for Kids (PPT4Kids) is an outpatient clinic that offers occupational therapy, physical therapy, and speech therapy services for the pediatric population. By teaming up with Simucase, an online simulation case study learning resource, I coordinated and assisted with creating simulation videos at PPT4Kids. My main role was to communicate with Simucase, PPT4Kids therapists, and the videography team to ensure smooth scheduling and planning to help create videos delivering high quality care with an evidence-based approach. The simulation videos included evaluations, treatment sessions, and parent interviews of occupational therapists, physical therapists, and speech therapists working with children with a variety of diagnoses. Additionally, patient video library recordings were filmed to represent “observational experiences” for students. By adding to the list of simulation videos for Simucase, graduate students will have a greater variety in selection to observe, interact, and learn from therapists using different approaches when working with their patients.
Capstone Experience

Goals and Objectives

For my capstone experience, my focus areas were clinical practice skills and program development. The clinical areas I wanted to focus on included pediatric feeding and AAC device implementation for occupational therapy services. Additionally, I helped develop simulation videos for Simucase, an online resource for health care professional students that provides access to simulation videos of practitioners and patient interactions in the field of occupational therapy, physical therapy, speech therapy, and audiology. Gaining more experience in the clinical practice areas of feeding and AAC device implementation helped me to facilitate and plan evidence-based treatment sessions for therapists working with patients who need assistance in these areas when filming simulation or video library videos in addition to other conditions/treatment approaches. The following section will outline the goals of my capstone project and how I was able to meet the objectives of each goal.

Goals:

1. Improve on clinical practice skills including evaluation and clinical treatment with a focus in pediatric feeding and AAC communication device implementation.

2. Create a program to develop videos of pediatric therapy sessions for Simucase.

3. Improve skills on organization of clinical components required to effectively provide Simucase videos that are conducive to graduate student learning by assisting therapists.

Objective #1: Organize a program with the clinic and staff of a pediatric outpatient clinic to create videos of evaluation and clinical treatment sessions for Simucase.
After discussion with the owner of PPT4Kids and my mentor, I was designated as the coordinator to assist with developing videos for Simucase. This role came with the responsibility of educating the rehabilitation staff and family of participants at the clinic about the purpose process of this program. I introduced myself and explained to the therapists at each clinic location (West Palm Beach, Lake Worth, Boca Raton) during their staff meetings and personally met and discussed with each guardian of the child that will be filmed. By doing so, I was able to help participants understand the purpose of filming for Simucase and feel comfortable about being on screen. I additionally explained how to prepare and what to expect for the day of filming.

For this project, I had a goal to include simulation videos and video library videos in the areas of OT, PT, and ST. Simulation videos include a recording of a session of an evaluation or treatment and an interview with the patient or parent. These recorded videos will be edited so that it can have interactive components for students to work on their analysis, problem-solving, and clinical competency skills. A video library is a patient video that can be self-filmed without an interview component. These clips will not be made to be interactive but an opportunity for students to observe treatments of different therapists and diagnoses. The end goal was to complete 3 PT Simulation videos (1 assessment and 2 intervention sessions), 2 ST simulation videos (treatment, interdisciplinary treatment), and 2 OT simulation videos (1 PDMS-2 assessment and 1 intervention session). Additionally, I had to organize patient video libraries including 10 (30-minute sessions) or 5 (60-minute sessions) in all disciplines. The list of diagnoses Simucase was interested in filming included torticollis, cerebral palsy, developmental coordination disorder, down syndrome, spina bifida, autism spectrum disorder, dysphagia, chromosomal disorder, and muscular dystrophy. Please refer to Appendix A for photographs of
filming days at the clinic. Please refer to Appendices B-E to see filming schedules of simulation and video library listings; due to copyright purposes, links to video recordings are not included in this document.

**Objective #2 & 3: Plan and communicate between Simucase, therapists, and clients to coordinate scheduling for recording sessions in clinic. Improve skills on organization of clinical documentation required to effectively provide Simucase videos that are conducive for graduate student learning.**

To prepare for each day of filming, I was required to communicate with Simucase staff, videographer, therapists, and clients to confirm availability. Everything was organized with a google drive document that was given access to the Simucase staff, videographer, and therapists so that everyone was on the same page with what needed to be filmed. The document included the location, contact information, dress-code requirements, schedule, interview questions, and treatment/evaluation goals. Each person on film (therapist, client, guardian, assistant, etc.) was required to fill out a “Consent and release for Video” and “Waiver of Liability Related to Coronavirus/COVID-19” form. Additionally, the parents signed an “Authorization for Use and/or Disclosure of Protected Health Information” form. I was responsible for getting these signed documents and sending them to Simucase to provide permission and protection by legal documentations. The parents who participated in the Simulation video recordings were also compensated financially by Simcuse and given W-9 forms for direct deposit access. On the days of filming, I made sure that the videographer was in the correct clinical rooms for each therapist and patient being filmed and assisted with the camera equipment as necessary. I also facilitated the interview to make sure all questions and responses were recorded per simulation filming.
For each patient that was filmed for simulation videos, I was responsible for sharing documentation to Simucase staff to provide substantial information about the child’s plan of care, treatment goals, or reason for discharge. In the plan of care, it included information about the child’s behavioral observations, parent’s concerns, medical history, areas of concerns, standardized assessment results/analysis, and goals for treatment. The daily notes were in a SOAP format explaining what the therapist was working on during the treatment session and how the child responded throughout. Additionally, if the child received other services in the past, discharge information was also provided. The documentations provided to Simucase were used to help create interactive simulation videos for the graduate students to infer and analyze the therapist’s clinical reasoning skills. For the video library patients, I sent over the background information and diagnoses of the child filmed and the daily note for the treatment session. By doing so, students would be able to not only observe the treatment sessions but understand what goals the therapists were working towards.

**Objective #4: Expand knowledge in clinical practice skills in evaluation and clinical treatment with a focus area in pediatric feeding.**

In a pediatric outpatient clinic, a lot of patients are referred to OT (occupational therapy) or ST (speech therapy) for feeding concerns. The SOS (Sequential Oral Sensory) Approach is used by OTs and STs at PPT4Kids to help kids who struggle during mealtimes. The assessments that are administered to determine if feeding therapy is necessary include the PediEAT, SPM (Sensory Processing Measures), or Sensory Profile 2. The questionnaire pediatric eating assessment tool PediEAT helps identify the feeding difficulties a child is experiencing in the areas of physiological symptoms, problematic mealtime behaviors, selective/restrictive eating, or
oral processing for children between the ages of 6 months to 7 years old (Thoyre et al., 2018). The SPM and Sensory Profile 2 are both assessments to help therapists discover any sensory processing issues the child may be experiencing (Brown, Morrison, & Stagnitti, 2010). Through the parent interview, the main concerns are discussed, and the standardized assessments help determine the medical necessity of feeding therapy.

With the assessment results and SOS Approach, I was able to identify where to start treatment and how to incorporate non-preferred foods into a child’s diet. The SOS Approach uses a sequential hierarchy to help introduce new foods: visual tolerance, interaction, smell, touch, taste, and eating. This progress of acceptance helps a child feel accomplished through exploration of food paired with positive experiences (Toomey & Ross, 2011). I was able to work with children diagnosed with sensory processing disorder, avoidant restrictive food intake disorder (ARFID), autism, and failure to thrive. The purpose of treatment sessions was to increase the range and volume of foods addressing deficits in the areas of sensory, oral motor, and developmental skills using a play-based intervention (Toomey & Ross, 2011). Parent education is always provided throughout sessions by sharing strategies to ensure carryover into the home environment.

A Simucase online video recording was conducted of a 6-year-old male patient diagnosed with ARFID working on feeding. Video library of feeding is listed in Appendix E. I assisted with preparing the occupational therapist plan for the treatment session by strategizing how to interact with non-preferred food choices using the SOS Approach. The patient brought two preferred food items (strawberries and fruit gummies) and 2 non-preferred food items (broccoli and carrots). The session was conducted in the sensory gym and all foods were placed on a plate in small portions. Because the child was at the stage of tasting the non-preferred foods, he worked
on licking, chewing, and spitting out, and then swallowing small bites. The preferred food items were also eaten throughout to decrease the anxiety of eating during feeding activity. With each success of the stages the patient was immediately rewarded by playing a preferred activity in the sensory gym (trampoline, swing, rock climbing) to increase motivation and create a positive, play-based environment. By the end of the session, the patient was able to achieve taking small bites and swallowing the carrots and broccoli. Parent education included the clinical reasoning behind the SOS approach and how to add small pieces of carrots and broccoli at home without overwhelming the child with new changes.

**Objective #5: Expand knowledge in clinical practice skills in clinical treatment with a focus area in AAC (assistive augmentative communication) device implementation.**

Occupational therapists work with children who use AAC devices as their primary mode of communication. During my rotation at PPT4Kids, I treated all children who use AAC devices for occupational therapy sessions with the purpose of learning how to implement them during functional or social tasks. Additionally, I observed and assisted in speech therapy sessions and sat in on an educational meeting with an AAC specialist to help better learn the system and usage of AAC devices. As each AAC device is personalized to the child, it was important to familiarize myself with each device to use it as a resource during their sessions. Because AAC devices are a child’s main source of communication, I learned that it is important to be consistent and strategic when using it during treatment.

As part of my capstone project, I helped assist therapists prepare for an OT and ST simulation video recording of a 17-year-old female diagnosed with autism non-verbal. Please refer to Appendix D to see filming schedule. The occupational therapist included functional
instrumental activities of daily living (IADL) tasks into her sessions while using an AAC device to help with labeling items, communicate instructions, and provide positive feedback. My role in planning was to help organize the activities and guide the OT with where to find certain buttons in the AAC device to implement it throughout her session. The activities the patient completed included labeling with an AAC device and categorizing utensils (fork, spoon, knife) to help increase independence with the IADL task of doing housework. The second activity was to remove strawberries from the fridge, clean, and cut them with the purpose of increasing independence with the IADL task of preparing food. The AAC device was used when instructing the patient to sequence steps using the “first, then, last” buttons and actions buttons of “take out, wash, and cut.” Throughout the session, the therapist used encouragement, redirection, and responses using buttons such as “good job,” “try again,” and “yes/no.” For the ST session, I helped with an activity working on a social goal with the patient by maintaining a conversation about personal information while the child used the AAC device to communicate. The ST provided necessary prompting while I asked questions the patient could answer and continue conversation using her AAC device. The conversation included topics regarding name, age, hobbies, and vocation.

**Objective #6: Expand knowledge in an interdisciplinary approach with the rehabilitation team in an outpatient pediatric clinic.**

An interprofessional conversation between the OT and ST was also filmed for Simucase to demonstrate the importance of communication between rehabilitation professionals. Please refer to Appendix D for filming schedule. I collaborated with the therapists to discuss the main topics that would be addressed for an interdisciplinary approach. The topics of the conversation
included questions specifically about the patient’s AAC device and how it has been used to work on her goals during the OT and ST sessions. The questions between the OT and ST questions are included below.

Interprofessional Questions

Occupational Therapist

1. The patient and I have recently started to work on using her AAC to label actions in pictures. Have you noticed her beginning to generalize this skill by labeling actions on her AAC when she is performing these actions in OT yet?

2. Sometimes the patient needs a verbal or gestural prompt to go to “Actions” before finding the correct verb. If you give her this prompt, is she usually able to find the corresponding action?

3. Has the patient been greeting or saying farewell to you with her device appropriately? We have been working on more reciprocal communication lately.

4. What can I do to help the patient decrease her impulsivity when manipulating objects during our session?

Speech Therapist:

1. How many word phrases are you working on with L.G.? I notice she will frequently use 1-2 words when requesting her favorite activities.

2. How would you like for me to correct and/or model correct responses while using the AAC device?

3. Should we begin to incorporate a goal for L.G. to practice fine motor manipulation by accessing her device independently i.e., pushing buttons to turn on/off, charging the device?
These questions were used as a guide to film a realistic conversation between two therapists and how they can collaborate to provide a holistic approach when working with a child who uses an AAC device. Collaboration between an occupational and speech therapist is important because it helps a child to carry over the skills learnt from each session and apply it during activities in both practices. An occupational therapist can communicate with a speech therapist to learn about the skills needed to implement an AAC device and incorporate it into teaching functional activities. Additionally, navigating an AAC device requires skills that an OT can work on during sessions such as fine motor strength, coordination, and tracking. Therefore, a speech therapist can discuss with an occupational therapist to help a patient learn how to better manipulate their device more independently. This inter-professional conversation between an OT and ST for Simucase helps graduate students learn about the importance of communication between the two therapists and how they collaborate to work towards reaching specific child-centered goals.

Summary

Overall, my experience at PPT4Kids helped me grow in my clinical reasoning and organizational skills. For my capstone project as the coordinator for PPT4Kids and Simucase, I made sure I was constantly communicating with the Simucase staff, therapists, and parents of patients. I was flexible to be respectful of each party’s needs but also make sure the task was completed in the best way possible. It was important to stay organized with all the waiver forms and medical documentations that needed to be sent over to ensure sufficient information needed to create the Simulation videos. A lesson learnt from this role was that I had to be prepared for any last-minute changes. For example, a day of filming was required to be delayed for two extra weeks because of a COVID-19 outbreak with a school our clinic partners with and our children
attend. I had to make sure that everyone was still on the same page for the new scheduled day to film and comfortable with the circumstance. All filming schedules are listed in Appendices B-E that consist of the simulation and video library recordings completed during my capstone project.

Feeding therapy has been a very complex, but valuable clinical skill to learn about during my capstone experience. It was a very common area of concern for parents at our clinic as a lot of children with developmental delays, autism, or sensory processing disorder also have feeding difficulties. A main takeaway was to make sure you incorporate the “just-right challenge” with feeding to decrease anxiety driven responses for the child. Feeding therapy can be a fun experience for a child and should never be forced. My time working with children using AAC devices was also a unique opportunity. It was very helpful to observe speech therapists and learn the proper strategies to help a child learn how to use their device appropriately. As an occupational therapist, it can be easy to disregard an AAC device if the child is not yet proficient in using their device. However, a child can be more receptive to occupational therapy treatment if an AAC device is implemented throughout because the child may have a better understanding of directions or prompting given due to learning similar phrases during speech therapy.

As a graduate student who used Simucase during a previous course, it was a great experience to be a part of the background work that goes into creating these online simulation videos. To ensure the continuation of this collaboration between PPT4Kids and Simucase, I created an Simucase Coordinator Manual (please refer to Appendix F) for the next student that would take on this project. It includes a guideline of the roles and responsibilities to successfully coordinate and plan for filming days at the clinic. I believe that online simulation learning will be a great additional resource for students to learn from and expand their knowledge in clinical skills.
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Appendix A

Pictures of Filming Days
Appendix B

Filming Day #1

Address: 5589 Okeechobee Blvd, Suite 205
West Palm Beach, FL 33417
561-376-2573, ext. 7104

Physical Therapist: M.P. (cell)
Videographer: J.B. (cell) (email)
Managing Editor: E.G. (cell)

Set up: 12:30 PM. Park in any space available, the clinic is on the second floor.

Forms needed for all people participating in filming:
HIPAA
Waiver of Liability COVID
Consent and Release Form
*if parents will be on film (recommend for E.P. session), we need waiver of liability and talent release form for them too.

General Reminders:
● Any confidential information you will not want on film should be removed or covered beforehand i.e. whiteboard, documents, etc.
● We ask that you and any clients please wear a plain, solid-colored shirt and pants with no writing visible anywhere on the clothing. Please avoid wearing any clothing with designs, slogans, or sayings; trademarked logos; sports team names or logos; designer brand names; and so on. Your clothes should fit you comfortably and should not have any features that may cause a distraction or a wardrobe malfunction--for example, no large holes, broken zippers, missing buttons, etc.
● You won’t need to wear a name tag, but we will provide you with a small lapel microphone that you must clip to your shirt. The microphone transmitter will clip to your pants’ belt or waistband, or if you have pockets, you can keep the transmitter there.

12:30pm-1:30 pm- Videographer set up

Patient Video Library filming 1:30pm-4:30pm
1:30PM-2:30PM- A.M.M
2:30PM-3PM- P.R.
3PM-4PM- A.O.

4:30pm-6pm- E.P. Physical Therapy
Referral: E.P. is a 7-year-old boy with cerebral palsy
1. Intros:
   **Child Intro:** Record client saying the following...
   “Hi, I’m ___
   age
   a few things about himself- i.e. what he likes to do (for fun)
   info about family, etc.

   **Parent Intro:** Record parent saying the following…
   “Hi, I’m _______ and I’m E.P’s ______.

2. Take a separate still image of clinician, client, caregiver

3. Record a 30 second idle video of the client and another of the parent. Record 2 total idle videos, 1 during the interview and another in location during the treatment portion.

4. Brief Child Case History -
   - What do you like to do for fun? (loves music, superheros, Roblox, Minecraft)
   - Who is your favorite superhero?
   - Tell me about school. (homeschooled this year)
   - Do you have any brothers or sisters? (is one of triplet boys)

   Record child saying
   Yes
   No
   I don’t know what you mean
   I don’t remember
   I don’t want to
   Not really
   Sometimes
   I don’t think so
   Sure

5. Brief Parent Interview
   - What does E.P. do well?
   - What about E.P. makes you proud?
- Describe a typical day for E.P.
- Describe any friend or sibling relationships
- Describe E.P. progress in PT
- Brief overview of medical history and health
- What are your primary concerns?
- What are the goals for PT?
- Is E.P. taking medications?
- Educational history- school, childcare, etc. IEP?
- What are his interests? Leisure? How does he spend his time day-to-day?
- Describe usual routine and services E.P. receives
- Talk about his developmental milestones- sitting up, crawling, walking, etc.
- Have there been any updates since last week’s session?

Record parent saying
Yes
No
You would need to ask his doctor
I don’t know what that is
Sometimes
I’m not sure why you’re asking me that
That’s not relevant right now
Occasionally
Not very often

6. Treatment
1. Begin with hamstring/adductor stretching using KAFOs and Galileo WBV platform (or can use MFR manual work)
   1. If breathing sounds restricted or he is very tight in the chest, I will also use WBV platform in supine w/ ribcage, spinal, pelvis mobilizations to loosen him up
   May also use:
2. KT to B knees to decrease lateral rotation of tibias on femurs
3. Use NMES to B adductors/gastrocs to increase muscle strength, proprioceptive input, alignment, decrease spasticity
4. Functional Skills

Standing Balance- B K/AFOs

Throw/catch weighted ball in standing w/ post support KAFOs locked in extension

Stand w/ UE support against vertical surface KAFOs locked in extension

Walk w/ 1HHA, cruising the walls, holding an object w/ therapist

Gait w/ tricanes for balance and functional activities around the house using just one

Gait with post walker - mostly for distance, to increase speed/cardiovascular endurance

Treadmill training - at least 6 min for cardiorespiratory endurance

Stairs side stepping and forward

Walk barefooted to see alignment of LEs

Patient/Parent Education

Stander daily x 1 hour+ for schoolwork

NMES daily while in stander/walking

KAFOs daily long sitting w/ abduction to play video games

Standing balance w/o support: playing games at padded coffee table, helping in kitchen, etc.

Park, tricycle, swimming, playground w/ brothers using post walker or tricanes or 1HHA

Therapeutic Exercises

Half kneel to stand w/ UE support

Running w/ posterior walker

Using the Breather daily x 5 min (inspiratory/expiratory trainer)

Grace, please email daily notes from the filmed session to Emily.
Appendix C

Filming day #2
Address: Progressive Pediatric Therapy - Boca Office
5458 Town Center Rd., Boca Raton, FL 33486
Feel free to park anywhere

Simucase Team: M.L. (cell)
Occupational Therapist: G.A. (cell)
Videographer: J.B. (cell) (email)
Start Time: 12:00 pm

General reminders:

- Any confidential information you will not want on film should be removed or covered beforehand i.e. whiteboard, documents, etc.
- We ask that you and any clients please wear a plain, solid-colored shirt and pants with no writing visible anywhere on the clothing. Please avoid wearing any clothing with designs, slogans, or sayings; trademarked logos; sports team names or logos; designer brand names; and so on. Your clothes should fit you comfortably and should not have any features that may cause a distraction or a wardrobe malfunction--for example, no large holes, broken zippers, missing buttons, etc.
- You won’t need to wear a name tag, but we will provide you with a small lapel microphone that you must clip to your shirt. The microphone transmitter will clip to your pants’ belt or waistband, or if you have pockets, you can keep the transmitter there.

12-1p: Videographer set-up
Filming individual sessions for Patient Video Library
1-2p: C.H. Occupational Therapy (G.A.: OT Rm. 1)
2-2:45: K.P. Speech Therapy (D.C.: ST Rm.1)
3-3:30: J.L. Occupational Therapy (K.P.: OT Rm.2)

3:30-5:00p Z.E. Occupational Therapy (G.A.: OT Rm. 1 & Sensory Gym)
Referral: Z.E. is a 5-year-old boy with a chromosomal condition. He is mostly nonverbal but may say hi/bye. He uses a tobii dynavox to communicate--when he uses the device, please try to have a camera angle on the screen so we see what he is looking at as well as a wider angle showing the activity he is working on. Sometimes has difficult behaviors.

1.Intros
Child Intro: Record client saying/doing the following...
“Hi” [because he is mostly nonverbal, have him communicate in whatever way is natural- maybe showing a favorite toy or waving].

Parent Intro: Record mom saying the following…
“Hi I’m R.E. and I’m Z.E.’s mom”

2. Take a separate still image of clinician (OT), client (Z.E.), caregiver (mom) (R.E.)

3. Record a 30 second idle video of the client and another of the parent (R.E.).

4. Brief Parent Interview
   -Tell me Z.E. diagnosis.
   -Describe a typical day
   -Describe any friend or sibling relationships
   -Describe Z.E.’s progress in OT
   -Overview of medical history and health
   -What are the primary concerns?
   -What are his interests? Leisure? How does he spend his time day-to-day?
   -How is school going?
   -Tell me about his behaviors at home.
   -How is he doing with his independence during daily tasks?
   -Any new medical information to share? Upcoming doctor visits?

Record parent saying
   Yes
   No
   I don’t know what you mean
   I don’t remember
   I am not sure why you are asking me that
   I don’t know
   Of course not
   I hope so
   Sometimes
   No, not really
   Sure

5. Record Intervention activities (majority of the session)
Record a 30 second idle video of Z.E. without mom present when he is participating in tasks with the therapist- could be at the table in the therapy room or wherever they will be for the majority of the treatments.

- Visual motor/visual perceptual skills task
- Balance/coordination task that incorporates some element of play
- Tracing shapes/UC letters. Using AAC device (consider a quick picture of the device)
- Gross motor- ball catching
- Prone WB for improved FM skills
- Mom caregiver training (get angle including mom and therapist on film talking to one another)

5:00-5:30 Tear-down.
Appendix D

Filming day #3
Address: Progressive Pediatric Therapy - Boca Office
5458 Town Center Rd., Boca Raton, FL 33486
Feel free to park anywhere

Simucase Team: M.L. (cell); S.W. (cell); E.L. (cell)
K.L. (Speech Therapist) (cell)
K.P. (Occupational Therapist) (cell)
J.B. (Videographer) (cell)
Start Time: 9:30 a.m.

General reminders:
• Any confidential information you will not want on film should be removed or covered beforehand i.e. whiteboard, documents, etc.
• We ask that you and any clients please wear a plain, solid-colored shirt and pants with no writing visible anywhere on the clothing. Please avoid wearing any clothing with designs, slogans, or sayings; trademarked logos; sports team names or logos; designer brand names; and so on. Your clothes should fit you comfortably and should not have any features that may cause a distraction or a wardrobe malfunction--for example, no large holes, broken zippers, missing buttons, etc.
• You won’t need to wear a name tag, but we will provide you with a small lapel microphone that you must clip to your shirt. The microphone transmitter will clip to your pants’ belt or waistband, or if you have pockets, you can keep the transmitter there.

9:30-10:30 a.m.: Videographer set-up

Filming individual sessions for Patient Video Library
10:30-11:00 a.m. M.C.: Occupational Therapy (N.M.) Down Syndrome; working on FM, BUE proximal stability, VMI, and ADL skills.
11:00-12:00 p.m. D.G.: Occupational Therapy (N.M.) Developmental delays with left-sided weakness; working on increasing FM, VMI, and BMC skills.

12:30-1:00 p.m. L.G.: Interview with L.G.’s Mom, P.G.
Referral: L.G. is a 17-year-old with autism, mixed receptive-expressive language disorder, developmental coordination disorder, and muscle incoordination. She uses a Saltillo Touch Chat augmentative and alternative communication device--when she uses the device, please try to have a camera angle on the screen so we see what she is looking at as well as a wider angle showing the activity she is working on.
1. Intros
Child Intro: Record client saying/doing the following...
   “Hi, I’m L.G.” [because she is nonverbal, have her communicate using her AAC device
   or in whatever way is natural--maybe showing a favorite object or waving].

Parent Intro: Record mom saying the following…
   “Hi I’m P.G. and I’m L.G.’s mom”

2. Take a separate still image of clinicians (K.L. and K.P.), client (L.G.), parent (P.G.)

3. Record a 30 second idle video of the client (L.G.) and another of the parent (P.G.).

4. Brief Parent Interview
   - Tell me L.G.’s diagnosis.
   - Describe a typical day
   - Describe any friend or sibling relationships
   - Describe L.G.’s progress in OT
   - Overview of medical history and health
   - What are the primary concerns?
   - What are her interests? Leisure? How does she spend her time day-to-day?
   - How is school going?
   - Describe school transition plans or vocational training plan.
   - Tell me about her behaviors at home.
   - How is she doing with her independence during daily tasks?
   - Any new medical information to share? Upcoming doctor visits?
   - Does L.G. have any vision difficulties?
   - Does L.G. have any hearing difficulties?
   - Describe L.G.’s progress in ST.
   - How does Leora communicate throughout the day?
   - Describe the process of how Leora came to use her Touch Chat device
   - Describe device use outside of speech therapy.

   Record parent saying
   Yes
   No
   I don’t know what you mean
I don’t remember
I am not sure why you are asking me that
I don’t know
Of course not
I hope so
Sometimes
No, not really
Sure

1:00-2:00 p.m. L.G. Speech Therapy (K.L.)
What kind of device is L.G. using? ViaPro with TouchChat
1. Record Intervention Activities
   - Action cards (2 buttons to identify action + object/pronoun)
   - Responding to personal questions (Social interaction) - Moving around if able
     (minimize identifying information)
   - Initiating conversation

2. Record a 30 second idle video of L.G. without mom present when she is participating in tasks with the therapist- could be at the table in the therapy room or wherever they will be for most of the treatments.

3. Record stills of page sets that L.G. uses throughout the ST session (@K.L. - If you are able to, it might be easier to send screenshots of digital files)

IPE Content? Possibly filmed during transition from ST to OT?
K.L.:
- L.G. and I have recently started to work on using her AAC to label actions in pictures. Have you noticed her beginning to generalize this skill by labeling actions on her AAC when she is actually performing these actions in OT yet?
- Sometimes L.G. needs a verbal or gestural prompt to go to “Actions” before finding the correct verb. If you give her this prompt, she is usually able to find the corresponding action!
- Has L.G. been greeting or saying farewell to you with her device appropriately? We have been working on more reciprocal communication lately.
- What can I do to help Leora decrease her impulsivity when manipulating objects during our session?

K.P.:
- How many word phrases are you working on with L.G.? I notice she will frequently use 1-2 words when requesting her favorite activities.
- How would you like for me to correct and/or model correct responses while using the AAC device?
- Should we begin to incorporate a goal for L.G. to practice fine motor manipulation by accessing her device independently i.e. pushing buttons to turn on/off, charging the device?

- IPE Ideas: [draft 3-4 specific questions to ask one another during this segment]
- Conference re: L.G.’s progress?
- SLP providing training on use and/or vocabulary updates to OT (is the vocabulary set meeting her needs in OT)?
- Does she use an AAC device to type/spell name or computer?
- SLP providing training on basic navigation on AAC device
- OT discussing visual motor integration or fine motor coordination re: AAC use?
- Discuss upcoming goals and objectives related to transition/school planning

2:00-3:00 p.m. L.G. Occupational Therapy (K.P.)

1. Record Intervention activities (majority of the session)
- Daily living skills and focusing on independence
- Praxis and executive functioning skills, sequencing with visual aids
- Chores (folding laundry, sorting utensils)
- Self-care (fine motor manipulation of fasteners, tying shoes)
- May ask to use the bathroom several times during the session
- Will use AAC device for part, but not all of the session

2. Record a 30 second idle video of L.G. without mom present when she is participating in tasks with the therapist- could be at the table in the therapy room or wherever they will be for the majority of the treatments.

- Opening food packaging
- Manipulating simple fasteners
- Writing or typing
- Using AAC device (consider a quick picture of the device)
- Exercises that are included in the home exercise program
- Playing a game related to her OT goals

3:00-3:30 Tear-down
Appendix E

Filming Day #4
Address: Progressive Pediatric Therapy - Boca Office
5458 Town Center Rd., Boca Raton, FL 33486
Feel free to park anywhere

Simucase Team: E.G. phone #, S.W. phone #, E.L. phone #, M.L. phone #,

General reminders:
• Any confidential information you will not want on film should be removed or covered beforehand i.e. whiteboard, documents, etc.
• We ask that you and any clients please wear a plain, solid-colored shirt and pants with no writing visible anywhere on the clothing. Please avoid wearing any clothing with designs, slogans, or sayings; trademarked logos; sports team names or logos; designer brand names; and so on. Your clothes should fit you comfortably and should not have any features that may cause a distraction or a wardrobe malfunction—e.g., no large holes, broken zippers, missing buttons, etc.
• You won’t need to wear a name tag, but we will provide you with a small lapel microphone that you must clip to your shirt. The microphone transmitter will clip to your pants’ belt or waistband, or if you have pockets, you can keep the transmitter there.

Schedule Overview
10:45am-11:45 a.m.: Videographer set-up
11:45 a.m.-12:30 a.m. D.G.: PT observational video library filming A.P. (PT)
COVID-1-2 p.m. R.H.: OT Simulation filming N.M. (OT)

OT will administer the Peabody Developmental Motor Scales-2nd edition to the child. The assessment consists of a gross motor skills section and fine motor skills section. The gross motor skills portion will involve a lot of movement-like kicking and throwing a ball. The fine motor skills portion will take place mostly at a table surface.

Introduction
Child introduces himself/herself

Still image and idle video of child in the location where filming occurs (could be table, floor, or gym area depending on the subtask)

Test administration
OT will administer the assessment. The therapist will provide a prompt/instruction to the child before each task. Capture the child’s performance on film. Recommend a few different camera angles. Each subtask is looking at a different skill or response.

2-3 p.m. M.C.: SLP intervention simulation filming C.H. (SLP)
1. Parent Intro: Hi, I’m _______. I’m M.C.’s mom.

2. Client intro: “Hi” or M.C. waving (depending on communication skills, if she can introduce herself that would be great. If not, hi or waving will work.)

3. Still photos: M.C., M.C.’s mom, treating SLP

4. Idle Videos:
   - 30 second idle video of parent during interview
   - 30 second idle video of M.C. in treatment space

5. Parent Interview: Please have the parent answer the following questions. Try to embed the question into the answer (e.g., If question is “What is M.C.’s diagnosis?” parent would answer, “M.C.’s diagnosis is ….)

   **Parent Interview Questions:**
   - Describe M.C.’s medical history.
   - Does M.C. have any upcoming medical appointments or current medical concerns?
   - Any concerns regarding feeding?
   - Any concerns with vision?
   - Any concerns with hearing?
   - Does M.C. have any siblings?
   - Describe a typical day for M.C.
   - How does M.C. communicate with you?
   - How long has M.C. been in speech therapy?
   - What are some of M.C.’s interests or things that she likes to play with?
   - Regarding communication skills, what are M.C.’s strengths?
   - What are your goals for M.C. (regarding communication)?
   - What languages are spoken in the home?
   - Does M.C. prefer using one language over another?
   - Does M.C. receive any other therapy? If yes, please describe.

   Record parent saying the following words/phrases:
   - Yes
   - No
   - I’m not sure.
   - I don’t know.
   - I don’t know why you are asking me that.
   - Sometimes

6. Intervention Session

**3-4 p.m.** S.Y. Video Library Feeding N.M. (OT)

**4-5:30 p.m.** M.V. - PT Torticollis Eval/treatment simulation filming A.P. (PT)

    **Parent Intro:** Record parent saying the following…
    “Hi, I’m _______ and I’m ___’s ______.

   Take a separate still image of clinician, client, caregiver
Record a 30 second idle video of the client and another of the parent. Record 2 total idle videos, 1 during the interview and another in location during the treatment portion.

**Full Parent Interview (as if it is the first time seeing the patient)**
- Initial Symptoms and reason for referral
- What were the events leading up to diagnosis? Testing, MD visit?
- Does the child have noticeable discomfort or pain?
- What are the child’s noticeable limitations in activity?
- Describe a typical day for ___
- Describe any friend or sibling relationships
- Brief overview of medical history and health
- What are your primary concerns?
- What are the goals for PT?
- Is ___ taking medications?
- Describe usual routine and services ___ receives
- Talk about relevant developmental milestones-sitting up, crawling, walking, etc.

*Record parent saying*
Yes
No
You would need to ask the doctor
I don’t know what that is
Sometimes
I’m not sure why you’re asking me that
Occasionally
No not really

6. **Assessment**
   - ROM
   - Strength

7. **Treatment**
   - Manual therapy
   - Parent Education
   - Home exercises
Mission of Progressive Pediatric Therapy: “Empowering children, families, and the community”

Purpose: Empower children, families, and community by fully participating in the promotion of public awareness and education.

Final Product: Help coordinate in creating simulation filmings and patient video library sessions to provide education and resources to graduate students.

Simucase Team: E.G. (PT) email address, S.W. (ST) email address, E.L. (ST) email address, M.L. (OT) email address

What is Simucase?

Simucase is an online resource that provides access to simulation-based learning. The patented simulation technology allows users to observe, assess, diagnose, and provide intervention for virtual patients. Simucase helps healthcare professional students practice specific clinical skills, evaluate clinical competencies, and interpersonal collaboration. Website: Simucase.com

Goal:
To coordinate between Simcase and Progressive Pediatric Therapy and help create videos of our skilled therapists and patients. These videos will demonstrate high-quality care and evidence-based practice for graduate students to use for educational purposes.

Simulation Videos vs. Patient Video Library:
- Simulation videos include a recording of a session of an evaluation or treatment and an interview with the patient or parent.
  - These recorded videos will be edited so to have interactive components for students to work on their analysis, problem-solving, and clinical competency skills.
- A video library is a patient video that can be self-filmed without an interview component. (Usually filmed on the same days as simulation video recording)
  - These clips will not be made to be interactive but an opportunity for students to observe treatments of different therapists and diagnoses.

Roles and Responsibilities:

- Communicate with Simucase staff, therapists, patients, and caregivers to plan for the projected filming date.
- Educate participants about the purpose of filming and what to expect on the day of filming.
Simulation video recording (Parents will be compensated $100-500 depending on how much will be filmed)
  ▪ Brief Interview with Parent (30 minutes)
  ▪ Filming of Evaluation or Treatment (30-60 minutes)
Patient video library recording (No monetary compensation)
  ▪ Filming of Treatment (30-60 minutes)

- A google document will be created by Simucase staff for the therapists to fill out information about patients to be filmed.
- For simulation videos, the therapist will meet with a Simucase staff for approximately 30 minutes prior to the filming date to discuss plans for filming. (Therapists will not need to meet if they are filming for the patient video library)
- Do your best to plan for as many simulation and video library filmings in one day to make the most out of filming days.
- Documentation
  - Anyone on camera will have to sign the “Consent and Release for Video” and “Waiver of Liability Related to COVID-19”
  - Parents will have to sign the HIPPA form for their child “Authorization for Use and/or Disclosure of Protected Health Information”
  - You will have to provide a plan of care and daily note of filmed patient completed by therapists to Simucase staff via email.
  - For parents participating in Simulation Video, they will need to fill out W-9 form to receive financial compensation
    - You or the parent can submit the W-9 by uploading directly to a secure accounting/finance dept for Simucase at: website
    - password: XXXXX

General Reminders
- Any confidential information you will not want on film should be removed or covered beforehand i.e. whiteboard, documents, etc.
- We ask that you and any clients please wear a plain, solid-colored shirt and pants with no writing visible anywhere on the clothing. Please avoid wearing any clothing with designs, slogans, or sayings; trademarked logos; sports team names or logos; designer brand names; and so on. Your clothes should fit you comfortably and should not have any features that may cause a distraction or a wardrobe malfunction--for example, no large holes, broken zippers, missing buttons, etc.
- You won’t need to wear a name tag, but we will provide you with a small lapel microphone that you must clip to your shirt. The microphone transmitter will clip to your pants’ belt or waistband, or if you have pockets, you can keep the transmitter there.