



PEDIATRIC PHYSICAL THERAPY & TELEMEDICINE

by Coleen M. Sallot

The Problem

Due to the shutdown, many medical providers are moving to telemedicine to provide services. Unfortunately, physical therapy is not so simple. These services often include orthotics and prosthetics, manual manipulation through massage and stretching, and specialized equipment--in addition to exercises--and can't be done by just anyone.

In the normal world, finding outpatient physical therapy providers that specialize in children is a challenge. Everywhere you look, you'll see signs for physical therapy, but the vast majority focus on services for adults. Analysis further shows that most revolve around children with autism, not children with actual physical disabilities that require long-term care.

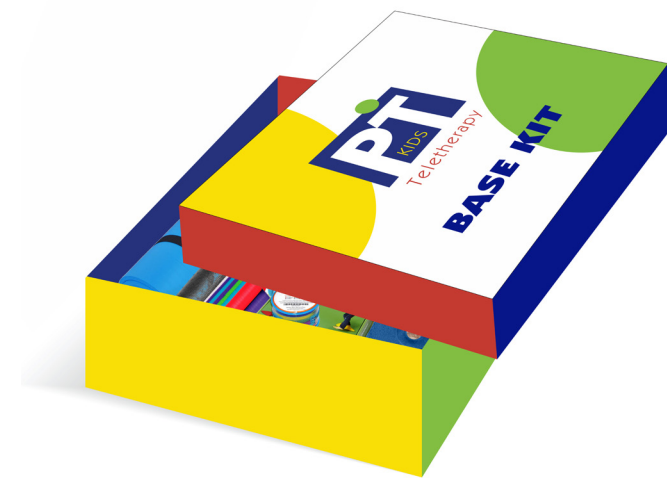
To make matters more difficult, a study of several metropolitan cities shows that only a small number of outpatient providers are available. Of those, only half have evening appointments, and only ten percent have Saturday hours.

In today's world, we must think bigger and smarter. This includes finding ways to expand physical therapy offerings via telemedicine--not as a hack, but as a viable alternative to in-person therapy. This can serve not only as a stop-gap measure, but also as a long-term solution for the thousands of families who live and work in places that do not have easy access to these services.

PTKids Teletherapy

Many therapists today are doing ad-hoc approaches to provide care. Equipment typically consists of whatever household objects families have around the house. Remote sessions are conducted via insecure means, such as Google Hangouts. And parents are referred to on-line resources for exercises.

PTKids Teletherapy is a service aimed at providing pediatric physical therapists and parents with the resources they need to ensure that children with physical disabilities get the care they need in a virtual environment.



Physical Therapy Kit

- Physical therapy kit contains objects typically used by physical therapists, such as a therapy ball, peanut ball, tactile footprints, spot markers, bucket bridge, tape, and a stretch strap.
- Objects are determined by physical therapist for their practice.
- Kit is covered by insurance and shipped to a patient's home.
- Physical therapist calls out items in kit and illustrates how to use them.
- Physical therapist also provides examples and guides for parents to conduct exercises with their children in between appointments.



Secure Remote Sessions

- Desktop application allows physical therapist to conduct remote sessions in a secure environment.
- Families can sign in either via the desktop or mobile app, depending on their level of Internet access.
- Physical therapist walks child through exercises and behaviors.
- Physical therapists can add patients, create plans, make appointments, and add instruction cards and video examples.



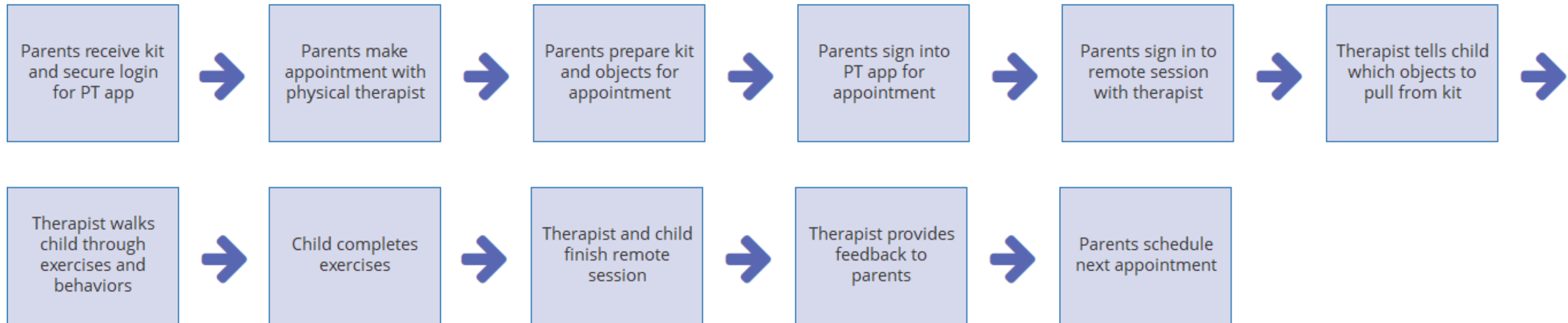
Parent/Child Exercises

- Parents can become more involved in their child's care by reading up on techniques and viewing videos.
- Physical therapist can set up assignments for the parent and child to do at home in between appointments.
- Assignments consists of a piece of equipment and an instruction card or video. Exercises can also be conducted via Alexa.
- Parents pull out items from the kit and show the child the example.

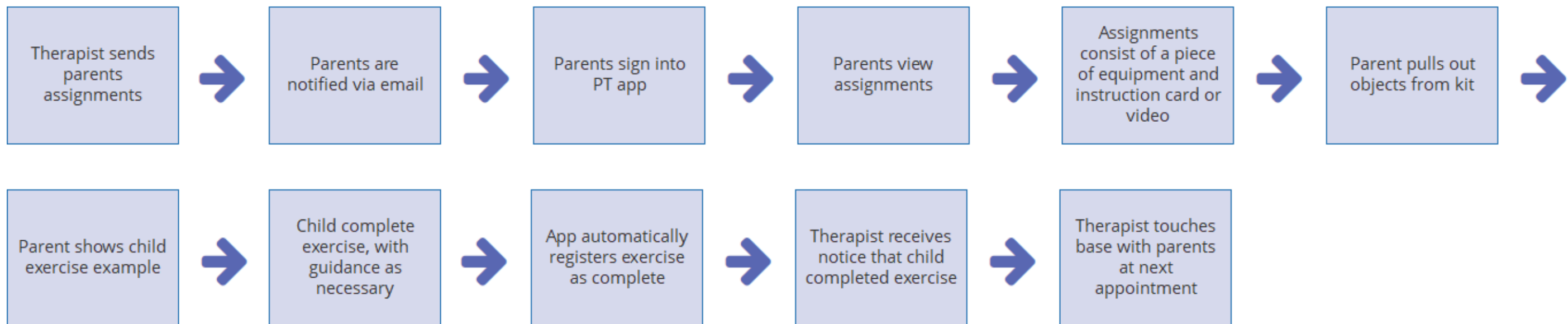
Process Flow

The physical therapy kit, PT application, instruction cards and videos all go together to ensure a comprehensive physical therapy regimen and experience.

Remote Sessions



Parent/Child Exercises

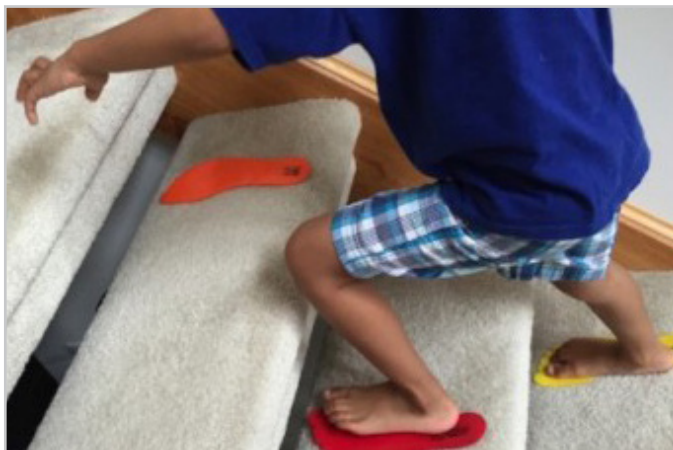


Mood Board

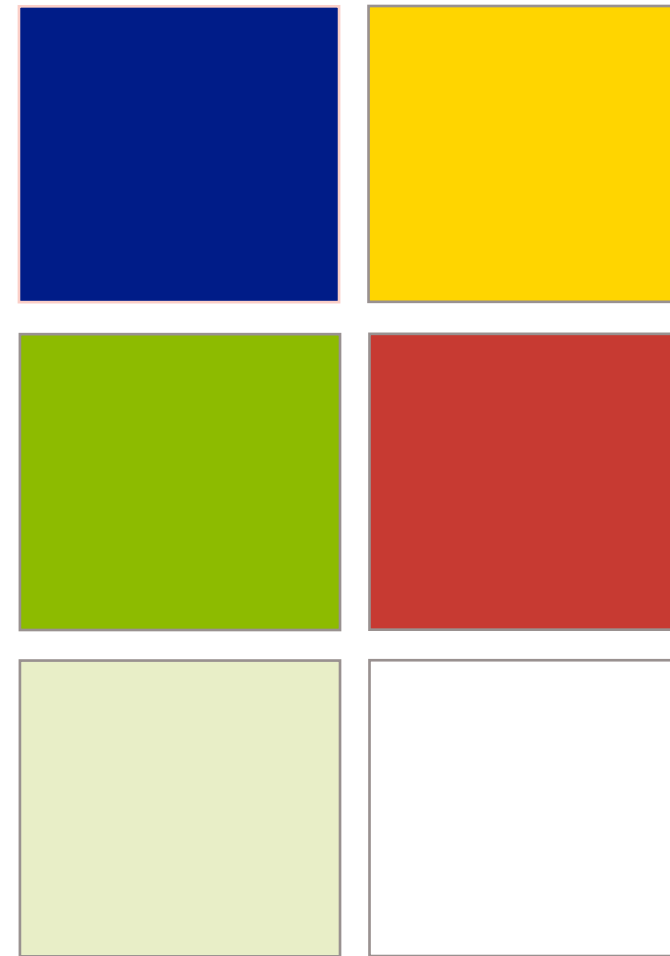
CONCEPT DESCRIPTION: PTKids Teletherapy provides pediatric physical therapy services to children with physical disabilities via telemedicine. It consists of a physical therapy kit, a desktop/mobile app, and instruction cards and videos.

CORE PURPOSE: Conducting physical therapy via telemedicine is not simple. Technical issues, lack of parental involvement and lack of equipment are problematic. This service is designed to bridge those gaps, thus enabling these children to receive the care they need.

PHOTOGRAPHY



COLOR



TYPOGRAPHY

ABCDEFGHIJKLMNOPQRSTUVWXYZ
PQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
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1234567890

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SPOT ILLUSTRATIONS, DIAGRAMS, RULES



TEXTURES



Branding



Physical Therapy Kit

Kit is covered by insurance and shipped to a patient's home.

Kits are customized by physical therapist based on patient needs.

Kit is modular to expand as goals are met and needs change.

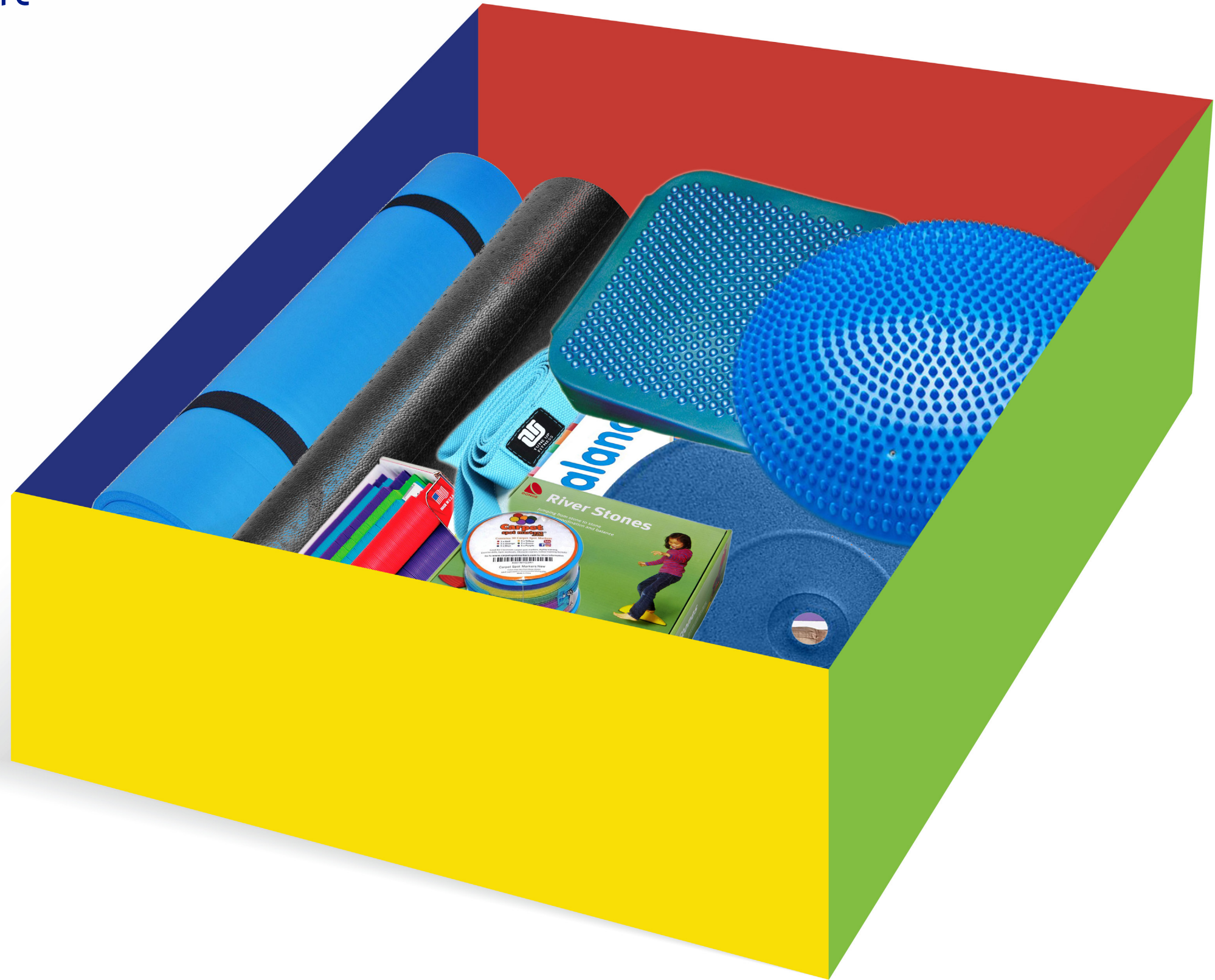


Physical Therapy Kit - Objects

Physical therapist chooses objects based on patient needs and goals.

Physical therapist uses stickers to number objects so patients can immediately distinguish one object from another.

A diagram of the objects is provided as part of the welcome packet.



Physical Therapy Kit - Objects

1 Yoga Mat



2 Foam Roller



3 Therapy Ball



4 Balance Board



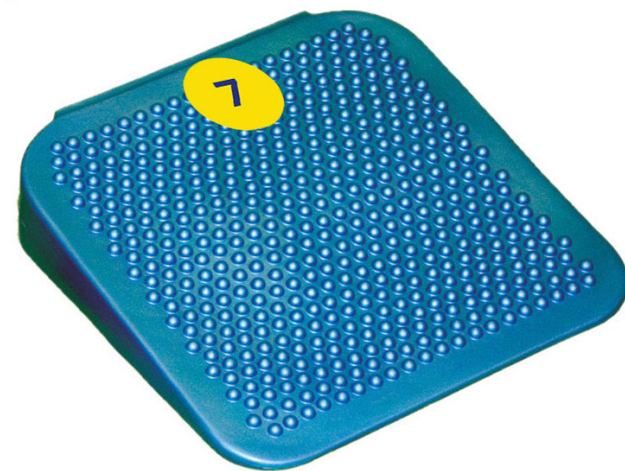
5 Dyna-Disc



6 Stepping Stones



7 Wedge Cushion



8 Stretching Strap



9 Spot Markers



10 Pop Toobs

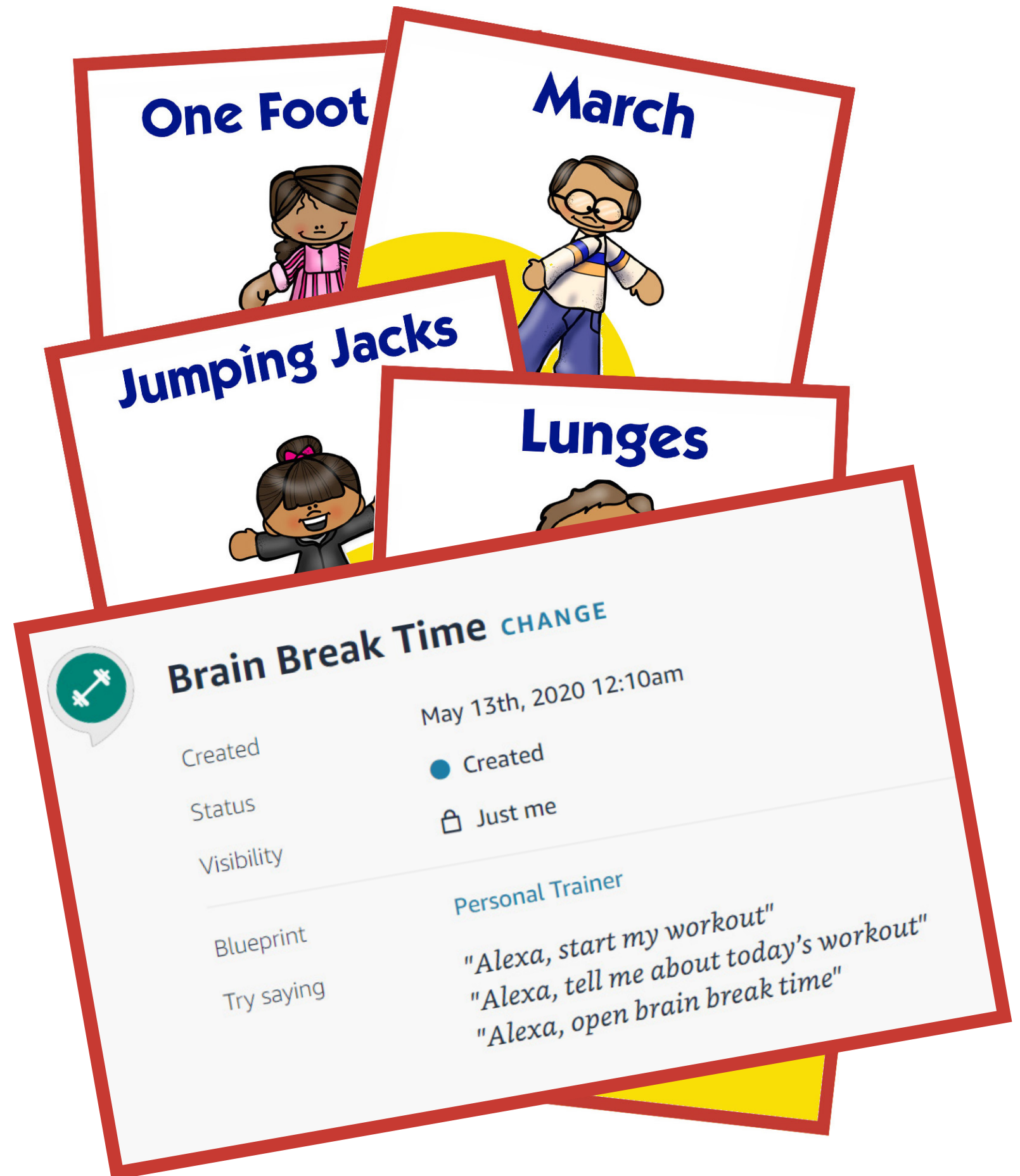


Physical Therapy Kit - Brain Breaks

Kits contain a set of exercises, also called brain breaks.

Exercises are customized based on the patient's needs and can expand as goals are met.

Exercises can be conducted via physical cards or Amazon Alexa. This allows for different profiles based on age and physical capability.



Physical Therapy Kit - Personalization

Kits contain a welcome packet from the patient's physical therapist.

This includes:

- A personal biography
- Contact information
- Kit instructions
- Detailed diagram of the items in their kit

PIT
KIDS
Teletherapy

WELCOME CASSIE



Rebecca Adams

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Physical Therapy Kit - Storyboard



Physical therapist customizes physical therapy kit based on patient needs and mails to patient's home.



Michelle and her daughter, Cassie, receive package and open physical therapy kit.



A welcome packet introduces the family to their physical therapist, Rebecca, and the PTKids Teletherapy program.



Rebecca contacts Michelle within 3 days to make sure they received the kit and to schedule their first appointment.



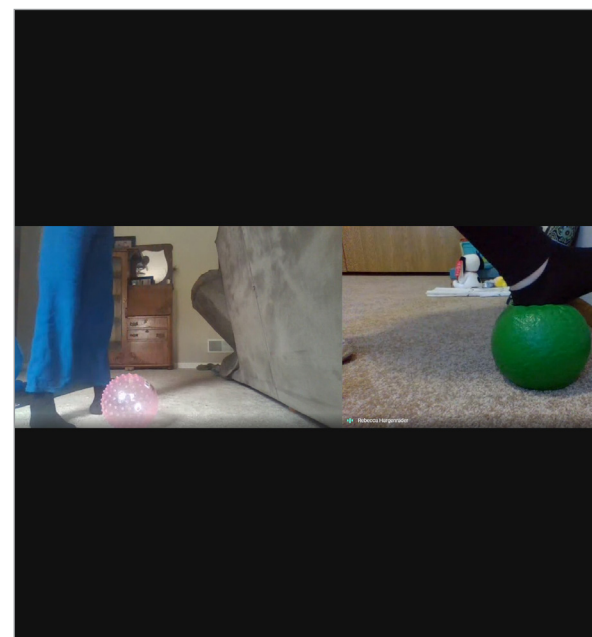
Before their appointment, Michelle and Cassie go through the kit to better understand the items.



Michelle and Cassie log into the PTKids app for their remote session.



Rebecca tells Cassie to get item #3 out of the kit



Rebecca shows Cassie what she would like her to do and has Cassie mimic her movements.



Michelle observes and takes notes. Rebecca also records videos for completing exercises.



After the appointment, items are put away and stored for their next use.



Michelle

"Sometimes it's the little things that make all the difference in the world."

AGE 42
 OCCUPATION Marketing Consultant
 STATUS Single
 LOCATION DuBois, Pennsylvania

GENDER Female
 ARCHETYPE The Explorer

PERSONA BIO

Michelle is a single working mother of three children. Her youngest daughter, now 10, was born with spina bifida and has required many surgeries at the Shriners' Hospital in Erie, Pennsylvania, to correct her condition. They live in a remote area about two hours away, so it has been extremely difficult to find out-patient physical therapy. The school provides services, but her daughter needs more.

With the COVID-19 outbreak, she has been researching the use of telemedicine to help her daughter. She has reached out to Shriners' for assistance, and they were able to put her in contact with someone who can help.

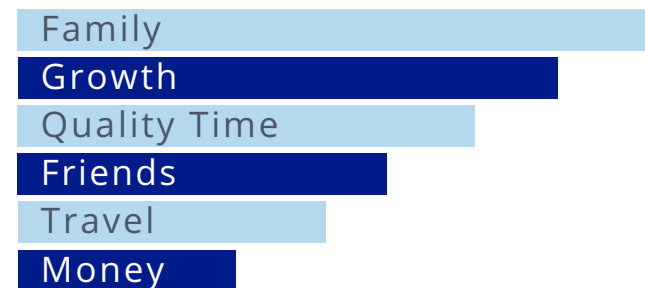
GOALS / NEEDS

- Regular access to physical therapy services
- Guidance and coaching assistance
- Access to equipment and resources

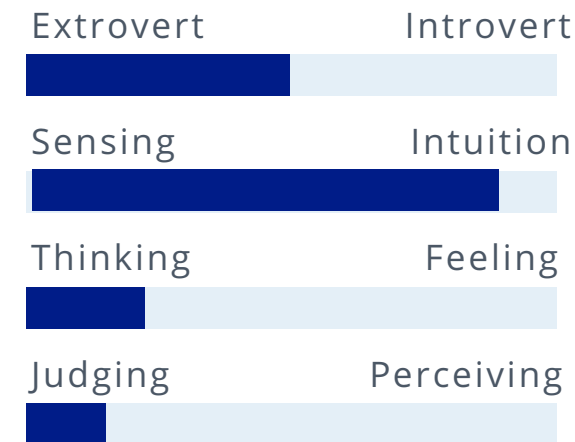
FRUSTRATIONS / FEARS

- Not as involved as she would like
- Frustrated by the lack of available services
- Worried she can't get her daughter the care she needs and she'll fall behind.

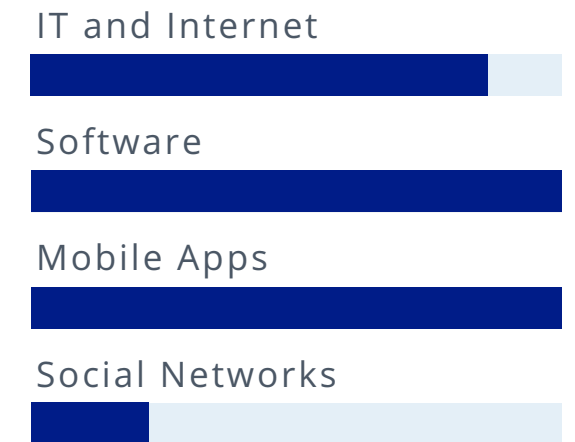
MOTIVATIONS



PERSONALITY



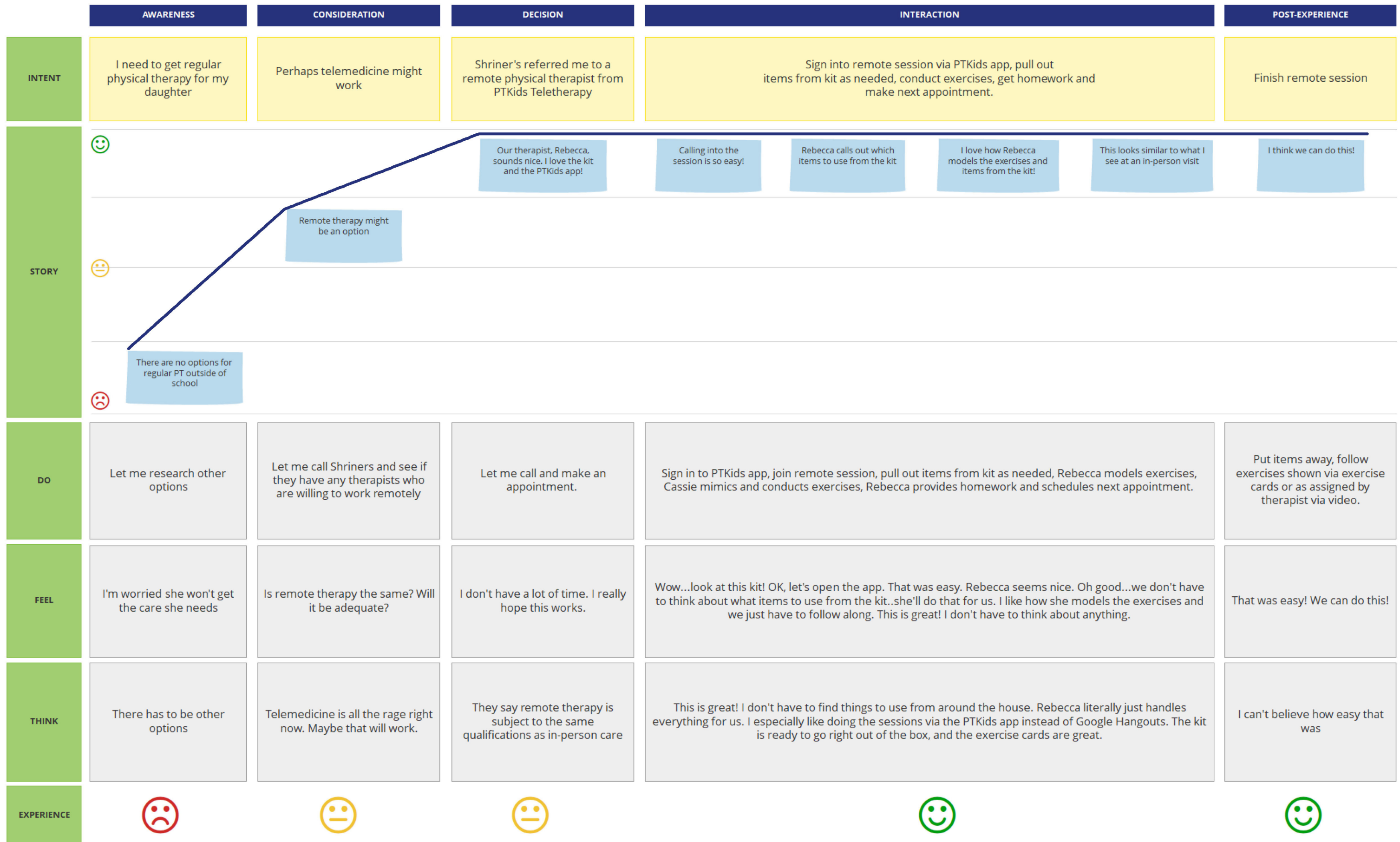
TECH KNOWLEDGE



BRAND AFFILIATIONS



Experience Diagram - Parent





Rebecca

“The future belongs to those who believe in the beauty of their dreams.”

AGE 32
OCCUPATION Physical Therapist
STATUS Married
LOCATION Erie, Pennsylvania

GENDER Female
ARCHETYPE Counselor

PERSONA BIO

Rebecca has been a physical therapist for 10 years. She currently works to provide physical therapy services to children with physical disabilities within the local school district. Many of these children come from low income homes, and their parents are unable to provide them with appropriate outpatient care.

Rebecca believes in the work she is doing but with the ongoing COVID-19 crisis, she has been forced to move to the use of telemedicine to help her patients. Due to the lack of parental involvement and technological access, this has been challenging but she is resolved to make it work.

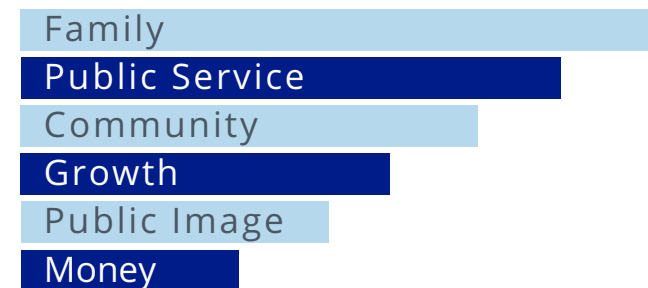
GOALS / NEEDS

- To create lesson plans that work virtually
- To communicate exercises to parents
- To provide recommendations for equipment and resources to help students with self care.

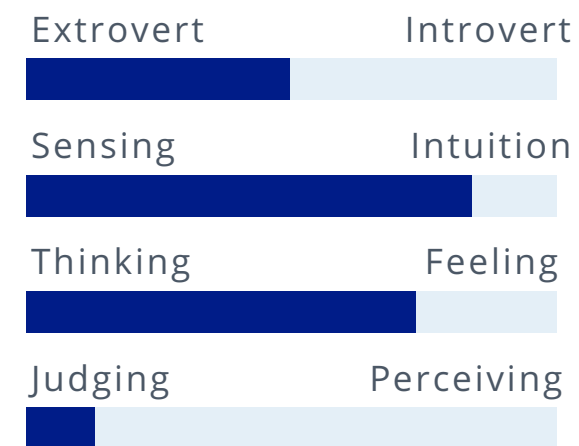
FRUSTRATIONS / FEARS

- Struggles with technological and parental involvement to ensure lessons go as planned.
- Worries that children won't get the care they need and will fall behind.

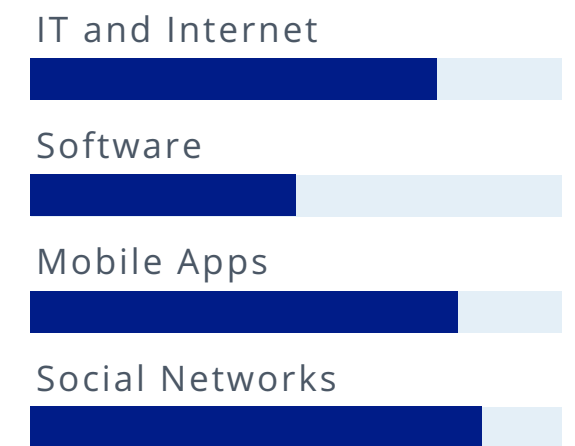
MOTIVATIONS



PERSONALITY



TECH KNOWLEDGE



BRAND AFFILIATIONS



Milk MAKEUP

Mrs. MEYER'S CLEAN DAY

Experience Diagram - Physical Therapist

