

~Neurobehavioral Programming~

Authored by: Heather Robison, MHA, LPC-S

2019

The Neurobehavioral philosophy builds on the foundations and philosophies of neuroscience, child development and trauma and incorporates such evidence-based approaches and techniques as Collaborative and Proactive Solutions (CPS), Trauma Focused Cognitive Behavioral Therapy (TF-CBT), Theraplay, Trust-Based Relational Interventions (TBRI), and Bruce Perry's Neurosequential Model of Therapeutics (NMT). Extreme problem behaviors and emotional disturbances in such children are conceptualized as manifestations of neurological and cognitive impairments, deficits and delays. Central to the program is the task of understanding the extent of such impairment; the situational expectations and demands of living that magnify and exacerbate such impairments; and the supports and interventions needed to compensate for, improve or resolve the impairments.

Our model is grounded on the pillars of ecological, relational and reinforcing principles. It prioritizes supportive interventions to build skills and functioning over behavioral consequences. The program is designed to provide a predictable, consistent, safe environment with basic expectations around safe behavior; while gradually building lagging skills. The level of behavioral expectations, supervision, and support is based on the individual's needs and abilities. This therapeutic model recognizes that the children served do not function emotionally, cognitively, or behaviorally in "neurotypical" ways.

Many children with neurobehavioral difficulties function and relate to others at a much younger developmental age and have fewer emotional, cognitive and social skills than their chronological age would suggest. The possible explanations for the developmental delays are vast and may include birth complications, trauma, genetics, illness, injury, infection or a wide range of other factors. The important thing is to interpret the child's behavior in the context of their developmental age, psychosocial/clinical history and functioning level. Despite having some common difficulties and deficits, there is a great deal of individual differences among the children served on the neurobehavioral unit. There are core features of the neurobehavioral environment and programming that set the stage for therapeutic progress. The features of the program and the environment will be described separately.

~The Environment~

For children with neurobehavioral issues, the environment can be overwhelming in the sense of space, sensory stimuli, associations, and safety. The neurobehavioral environment is carefully designed to comfort, contain and support the children in our care.

Space - With respect to space, the unit is designed for clear visibility and proximity between staff and patients. The unit is divided into multiple, smaller spaces to better contain the spatial vastness and allow for smaller group activities and interactions. Smaller groups also allow the staff to provide more one-on-one attention and therapeutic interactions with the individual children in each group.

Sensory stimuli – Every effort is made to create an environment that is “sensory” friendly in that most of the features of the environment including temperature, lighting, noise, and aesthetics are subdued and less likely to create an adverse response for those individuals with sensory sensitivities. Sensory supports are provided on the unit to assist patients with emotional regulation and coping. Stress balls, head phones, chewing tubes, fidgets and weighted blankets are examples of sensory items that may assist with meeting sensory needs. Sensory calming carts are kept well-stocked and maintained on each unit and patients are oriented to the calming cart items and their uses.

Associations - Many of the children that come to residential treatment have experienced abusive, neglectful or traumatic experiences and losses including the trauma of frequent hospitalizations, school disruptions and removal from the family. For this reason, there are many environmental and interpersonal stimuli that can trigger traumatic reactions and defenses. Certain times of day, voices, genders, activities and touch can be triggering influences.

Parents and other caregivers can often attest that their child’s aggressive, explosive behaviors occur out of the blue, in unexpected, unpredictable patterns. Children who have experienced trauma, violence and other adverse childhood events (ACEs) will often form an association between memories of the traumatic events and/or fearful experiences, and otherwise neutral objects, sensations, people or situations that were present at the time that the event occurred. When exposed to these triggers later, they activate the memories and fears associated with the trauma because they share a neural connection strengthened by the intensity of the event.

Trauma assessments and inventories are completed by staff the first day of admission and individualized safety plans are developed collaboratively with the child in order to prevent a

traumatic reaction and stabilize if such a reaction is activated. Specific physician orders and precautions may be implemented to communicate the need for additional supports.

Safety – Clear rules and expectations are set for safe behaviors. Each child or adolescent is provided with clear, simple definitions of unsafe behavior including verbal and physical aggression, aggression to others, aggression to self and aggression to property. However, staff are trained to place emphasis on prosocial, positive behaviors. Prosocial behaviors including keeping hands and feet to self, providing appropriate physical space and boundaries and speaking to one another kindly and respectfully are taught, modeled and reinforced. Rather than redirecting children with statements such as “I need you to stop yelling,” staff instruct children on what to do *instead*, with emphasis on the desired prosocial behavior; eg. “Please speak calmly and respectfully,” or “Please use your inside voice.” Expected prosocial behaviors related to safety are posted in dayrooms and common areas to serve as visual aides and reinforcers.

Note – discussion of reinforcing the competing/incompatible behavior related to the problem behavior ie. Instead of punishing the problem behavior of yelling reinforce the competing behavior of speaking softly and respectfully.

There are various environmental features on the units that assist in maintaining a safe environment. These include calming rooms, sensory carts, time-out locations, spaces separated by doors that can be locked, and monitored seclusion rooms when aggression to self or others is severe and physical holds are contraindicated. Staff are trained in verbal de-escalation techniques as well as physical interventions through SAMA; a national certification course. Seclusion and physical holds are only used as a last resort and Meridell tracks and trends data on use of these measures on a weekly, monthly, quarterly and annual basis. Through close monitoring of incidents and data, Meridell has reduced these measures by over 70% within the last two years. The most effective safety strategies involve close supervision and the prompt use of verbal de-escalation techniques.

~ The Program ~

Milieu Management –

The therapeutic milieu refers to the overall environment that the patient experiences. It is made up of multidisciplinary staffing, structured daily schedule, levels of supervision, interpersonal interactions, clinical programming, group curriculum and group dynamic, peer influences, physical environment, culture and relationships. All of these variables interact in non-linear, synergistic ways to influence the degree to which the environment maintains its therapeutic quality. A change in staffing, schedule, admissions, discharges, or environment can all impact the milieu in significant ways.

Each neurobehavioral unit has dedicated core mental health technicians that directly supervise and manage the milieu. In addition to the core staff, there are float staff that assist in maintaining the required staffing levels of one staff to every five patients. We strive to maintain competent, reliable core staff on consistent shift schedules. Staff familiar with patient and milieu variables increase the quality of care and perception of felt safety for patients on the unit.

Every moment of the day within residential treatment provides discrete therapeutic experiences; an accumulation of which cascades into genuine change over time. Direct care staff accompany patients in small groups throughout the course of the day; observing, anticipating, correcting, comforting, reteaching, mentoring, redirecting, encouraging, reinforcing, modeling and supporting the child toward positive change. Achieving new insights into one's own and others' behaviors takes a level of self-reflection and cognitive processing that is typically deficient in children with neurobehavioral disorders. For this reason, children require more external direction due to lagging skills and lack of internal regulation and control.

In order to change a behavior, belief or thought process, one must first be aware of that behavior, belief or thought process; its negative effect on self or others; and the benefits of change. These psychological processes of self-awareness, self-reflection, metacognition, planning and perspective taking require sophisticated, advanced mental operations that are delayed or deficient in children with neurobehavioral disorders. However, it is the repetitive interventions of staff described above that gradually increase children's level of awareness and understanding.

Given our knowledge that human brains are uniquely wired and sensitized to other human beings, we recognize and utilize the powerful impact of relationships in the change and healing process. Through consistent, positive, supportive and caring interactions with staff, patients are able to learn and/or reorganize their views about healthy relationships and attachments. In

the context of a strong, supportive human connection, corrective feedback and redirection carries a heavy valence. Valence is the psychological term that indicates the emotional value or weight that is associated with a stimulus; with research showing us that the sight or touch of a familiar caring person or family member is much higher than that of an acquaintance or stranger.

Relational Methods of Skill Teaching

Many children with developmental delays, neurological deficits and trauma histories are directed more by primitive survival areas of the brain than they are by the higher order, executive cortex areas of the brain. These primitive hindbrain and midbrain functions are dominant, sensitized and over activated in children with neurobehavioral disorders. Therefore, intensive focus must be applied to dampening the reactivity of these areas to allow neural pathways to form and develop in higher level, reasoning areas of the brain. The environmental, relational and medical interventions of the program are key factors in mitigating the lower brain reactivity but work must be done to erect new connections in the executive areas of the brain.

To further develop higher order cognitive functions, staff and therapists must continuously engage the child in frequent problem solving, education and skill building. These interventions are provided on a group and individual level. Our psychiatrists utilize a screening tool at intake that generates a profile of the child's neurocognitive functioning. This will typically provide information on working memory, processing speed and auditory vs visual processing abilities. Further in depth testing is often ordered later in treatment but this preliminary data is useful in implementing modified interventions, accommodations and supports that inform the best approach to use when teaching or processing with the child.

Therapeutic Interventions –

The etiology of behavior problems exhibited by children with neurobehavioral disorders originates in the brain. Given that these disorders are brain based, we know that there are abnormalities of brain functioning, regulation and/or modulation that contribute to the child's extreme behaviors. We understand that these children have difficulty meeting expectations of "neurotypical" children of the same age because their brains are dramatically different. Due to brain abnormalities, these children have deficits or delays in the areas of emotional regulation/distress tolerance, social cognition, language/communication, executive skills (planning, coordinating, organizing, taking perspective) and/or cognitive flexibility (shifting mindset or task).

When children with these disorders fail to meet expectations, it is interpreted as a sign of a lagging skill; rather than simple non-compliance. All therapeutic interventions are focused on

teaching the child what TO do rather than punishing or giving consequences for negative behaviors. There is a core belief that children that can do well will prefer to do well. Children with neurological deficits, developmental delays and trauma histories are limited in their ability to learn from consequences as this involves the mental operations and working memory capacity to consider former behaviors and consequences and predict future outcomes; cognitive abilities which are typically impaired in such children. Further, teaching and training in a proactive manner is the objective.

Common teaching and clinical interventions are listed below:

Redirection:

Staff maintain close levels of supervision and provide feedback to children throughout the day when they become dysregulated, disruptive or off-task. Staff redirect the child back to the task or expectation by clearly restating the current expectation and reminding them to meet this expectation.

Prompting:

Staff use verbal or physical prompts to assist children with daily tasks and keep them on focus. Prompts may be helpful for completing hygiene, school assignments, chores, or any number of tasks throughout the day. These serve as reminders and reinforcers to help the child progress through the steps of the task.

Modeling:

Staff can directly model or demonstrate for the child the execution of a task or expectation. Narration can be included as staff demonstrate for the child; providing a “play-by-play” description for behavior and explanation for why the adult is engaging in the behavior. A play by play announcer may explain: “I am going to collect my favorite things and put them back in my personal box so that they don’t get lost” or “I rinse my hands with warm water for thirty seconds to be sure that the germs are cleaned away.”

Mentoring:

Some children benefit from being assigned an adult mentor to provide additional support, encouragement and interpersonal experiences.

Direct Teaching:

Given the skill deficits of the children with neurobehavioral disorders, failure to meet an expectation or demonstrate prosocial behaviors is viewed as a signal that the child is lacking the requisite skills and direct teaching is one method that staff utilize to assist children in building these skills. Teaching must be modified to the individual needs of the child to be effective.

Redos/Do Overs:

In the same vein as the direct teaching description, children are provided endless opportunities to practice behavior more skillfully. Typically, after teaching or prompting, the staff will ask the child to “redo” the scenario and will provide feedback and praise for more skillful and/or prosocial behavior.

Restorative Actions/Repairs:

Since all children are part of the community of the milieu and share responsibility for its condition, it is important to teach the child about taking actions to repair or restore damaged property or relationships. This is similar to a redo but the child is taught the social significance of taking accountability and making amends for damaging actions. These actions are not framed as consequences but help the child to understand social realities. A child may be asked to help staff clean up the dayroom after throwing over a table and food. Alternatively, a child may be asked to take responsibility for their behavior and apologize to a peer whom they spoke rudely to earlier.

Role playing:

This is another method of skill teaching that is similar to modeling. The staff and child will take turns practicing and acting out a certain behavior or skill set in order to be better prepared for future scenarios. It is a rehearsal opportunity for real-life scenarios.

Collaborative Problem Solving:

Staff proactively engage the child in a discussion of his or her concerns about a particular expectation and drill deeper into the issue to better understand the underlying problems the child is experiencing. After identifying the child’s concerns and underlying unsolved problem, the staff works collaboratively with the child to generate solutions that are realistic and mutually satisfactory.

Time-outs:

Children may be asked, and are allowed, to take a personal time out as a coping skill. Time out is a voluntary quiet time away from others to regain control and composure. It may be at a

table away from peers or in the calming room. Time outs are short in duration and the child is expected to process after time out and rejoin the group.

Activity by Activity:

If a child is unsafe or particularly disruptive and dysregulated in an activity, he or she will participate in an independent activity or process work for a portion or the entirety of the next group activity. This is to ensure that he or she is able to regain self-control and manage the next activity safely. The goal of separation from the group is solely to allow the child to refocus and regulate sufficient that they may safely rejoin the group.

2:4:

When children are exhibiting extremely dysregulated, aggressive behavior to self or others, they are removed from the group activity and assisted in regaining emotional regulation. The purpose of the removal for two hours is threefold: 1) to ensure safety of self and others; 2) to remove stressors or triggers and engage patient in emotional regulation strategies; and 3) to process the incident adequately as a “teaching moment” so that effective solutions or skills can be taught and transferred to future scenarios. The youth is engaged in a calm, independent activity such as reading, journaling, drawing or using a calming cart item at staff discretion based on safety factors for the first two hours. During this time, staff provide co-regulation (described in next section) to facilitate the child achieving emotional regulation.

The remaining two hours they are transitioned to the group activity while remaining on the unit.

When the child has demonstrated all three of these tasks and has had sufficient time away from the group, it is more likely that they will be ready to rejoin the group successfully. When the child is allowed to rejoin the group prematurely, the outcomes are typically poor and this is seen as setting the child up for failure. In earlier phases of treatment, frequent aggression is a signal that the child requires greater levels of external control to regulate and maintain safe boundaries.

Co-regulation

Co-regulation

For children with neurobehavioral disorders, the ability to self-regulate is typically severely compromised and caregivers must often co-regulate children when distressed or overwhelmed. Co-regulation refers to an interpersonal process characterized by warmth, empathy and caring responsiveness (reference here). Staff and other caregivers demonstrate care and affection; recognize and respond to cues that signal needs and wants; and provide caring support in times

of stress. Caregivers can build strong relationships with children, youth, and young adults by communicating, through verbal and nonverbal methods, their interest in the child's concerns, respect for the child's individual perspective, and commitment to caring for the young person unconditionally (reference).

Caregivers structure the environment to make self-regulation manageable; providing a buffer against environmental stressors. This means creating an environment that is physically and emotionally safe for children, youth, and young adults to explore and learn at their level of development without serious risk to their physical and emotional wellbeing. Staff teach and coach self-regulation skills through modeling, instruction, opportunities for practice, prompts for skill enactment, and reinforcement of each step towards successful use of skills. Like a coach on a sports team, caregivers should first teach skills, and then provide needed supports, or scaffolding, for self-regulation enactment in the moment.

Capacity for self-regulation develops over time, from infancy through young adulthood (and beyond). Consequently, the amount of co-regulation a child, youth, or young adult needs will vary as they grow. As a child's ability to self-regulate increases, less caregiver co-regulation is required.

Consequences/Behavioral Contingencies:

As mentioned previously, negative consequences and response cost or punishments such as restrictions from scheduled activities and loss of privileges are not typical components of our treatment program for neurobehavioral youth. There are many reasons for this including the negative impact on building trust and relationships; internalization of negative views of self and reduced self-esteem; and lack of behavioral maintenance across settings, particularly once discharged into less structured and controlled home and community settings. The primary reason for not relying on negative behavioral consequences is the fact that the reason or cause for the problem behavior is rarely detected and solved.

Positive consequences including verbal praise, increased privileges and rewards, and social status are major components of our treatment program described in more detail below. Throughout the schedule of daily activities there are many challenges and opportunities for youth to practice and learn new skills. As youth demonstrate new or emerging skills staff should provide verbal acknowledgment and reinforcement to help the child increase self-awareness, build a sense of competency and increase motivation to engage in treatment. The program uses an 80/20 rule of thumb with the expectation that staff provide positive reinforcement and praise for demonstrating prosocial behaviors or emerging skills a minimum of 80% of the time. Research has demonstrated that reinforcing a positive behavior that is

incompatible or competing with a problem behavior, is more effective in eliminating a problem behavior than punishing the problem behavior (reference research).

Given the 80/20 expectation, staff are observing for positive behaviors and compliance with unit expectations throughout the day. For each expectation met and skill displayed, the youth receives points. Students accumulate points that they can turn in to the point store for small tangible items and weekly points that they can use for special privileges and rewards appropriate to their developmental age and functioning level. Key parameters of the point system include the following considerations:

- a) Patients do not lose points;
- b) Patients do not have to earn treatment or daily activities such as meals off unit or passes; and
- c) Patients earn points for meeting well defined treatment goals and unit expectations and may have additional privileges

Aside from positive consequences and reinforcement for positive behavior, the only other consequences are well defined, logical consequences leveled at the severity of the problem behavior. For instance, if a patient uses the phone during phone call time to assault someone their phone call will be discontinued and they receive supervised phone calls for a period of time.

Therapy:

Patients receive one individual therapy session and one family therapy session each week. In addition, they receive 3-4 psychotherapy groups per week and 2-3 recreational therapy groups per week. Core mental health staff provide two daily groups consisting of a goals group in the morning and reflection group in the evening. Psychotherapy groups are led by master's level clinicians and utilize a formal, well-respected curriculum series developed by Michelle Garcia Winner. This research-based curricula teaches flexible, situationally adapted social skills and understanding in a systematic and engaging format.

Individual Therapy

Therapy with youth with neurobehavioral disorders and/or trauma histories must be modified to account for deficits, delays and distrust. Therapy characterized by verbal, cognitive processing is not effective or appropriate for most children in this population. Experiential modalities such as play therapy, expressive therapy, adventure therapy, psychodrama and adventure therapy are more developmentally appropriate, clinically indicated and engaging methods.

Group Therapy

Goals and Feelings Group:

This group is facilitated by the core unit staff and is a two-part group. First, patients will state their emotional feelings for the day. This gives all patients an opportunity to get in touch with feelings and the reasons they feel the way they do. The focus is to help patients connect with and correctly identify and express their feeling state as they begin the day. The second part of group is the treatment goal. The child will identify a realistic goal to help them move forward in their treatment and life. If goals are unrealistic, the staff will gently provide discrepant observation and assist in identifying a more realistic goal. Goals will be focused on what the child is going to attempt to do to be successful rather than what they are not going to do. Eg. “My goal today is to speak respectfully to all peers and staff” (positive) vs. “My goal today is NOT to use profanity” (negative). Staff will again gently redirect or assist the patient in reframing the goal in a positive manner if needed.

Reflections Group:

The group is facilitated at the end of the day by the core unit staff and is also a two-part group. First, the child will give feedback to the group about if and how they met their goals for the day and whether this moved them forward or backward in treatment. Second, the child will briefly explain what they learned and how they will apply what they learn daily in their treatment. The child will end their day with a positive action or observation for the day. Staff must ensure that Reflection groups always conclude on a positive note.

Issues Group:

This group is facilitated by a therapist and provides an opportunity for the child to express concerns that they are experiencing during their treatment or as a member of the therapeutic milieu. In this group, they are able to address their peers and practice conflict resolution, familial issues and treatment progress. The child receives positive peer feedback and learns how to appropriately accept feedback from others, while holding themselves accountable and problem solving.

Psychoeducational groups Social Thinking Groups:

Utilizing the principles and content curriculum of Michelle Garcia Winner’s Social Thinking Series, therapists facilitate groups that expand the concrete, rule-based fundamentals of social skills training to active, social problem solving based on the diverse complexity of social situations. Rather than relying on memorized, behaviorally based rules regarding social

responses and reciprocations, the child is engaged in activities that help them to build the cognitive flexibility of evaluating and determining the contextual clues of a given situation that define the appropriate response. Borrowing from Theory of Mind, Perspective Taking and Central Coherence constructs in the literature, Social Thinking groups will help children to decipher the contextual clues that are present when interacting with others and will gradually develop the child's ability to adapt and apply this information accurately and naturalistically.

Psychoeducational Groups Zones of Regulation:

Learning activities are designed to teach the patients to recognize their emotional/energy zone at any given time, gain insight into how their behavior changes how others think and feel about them, understand how their ability to regulate affects their day as a whole, and identify triggers that lead to the Yellow and Red Zone. Additionally, the curriculum teaches students various tools that are calming and alerting and why, when and how to use the tools to influence their zones. Integration of these tools into daily life is a focus and patients are afforded the opportunity as they transition between unit, school and recreational activities. The Zones of Regulation concepts are also reinforced by the charter school teaching staff.

Recreational Therapy Groups:

Recreational therapy provides normalization, socialization, team building, skill building and recreational opportunities for patients to learn more about working with others while increasing self-esteem. The recreational therapy department also organizes and supervises community outings where skills can be expanded and practiced in a more normalized, real world environment.

Structuring Groups for Individual Differences

Central to the neurobehavioral philosophy and program is the attention to individual differences in abilities, skills and functioning. This is a critical consideration for individual interventions as well as group interventions. Given the significant diversity in diagnostic categories as well as developmental, intellectual, social, emotional and physical continuum of the children on the neurobehavioral units, programming has been structured to better accommodate these disparities.

One key structural element is the use of two, distinct day rooms for group programming and therapy. Children are assigned to one of two dayrooms based on an overall assessment of their developmental age, functioning level and diagnosis. Developmentally younger children with more severe skill deficits are assigned to a dayroom with program and group content adjusted for their functioning. It is important to meet the children where they are at and help move them forward from there. Testing and other tools are also available to help determine the

appropriate initial placement. As skills are taught and stabilization is improved, it is sometimes necessary to consider a dayroom reassignment to better meet the child's needs. Another example of

Multi-Disciplinary Staffings:

Individuals who continue to exhibit a high rate of behavioral incidents and severe acuity will be reviewed in focused, multi-disciplinary meetings that include the Director of Clinical Services, Clinical Psychologist, Risk Manager, Patient Advocate, Principal, teachers, and psychiatrist. An individualized plan will be developed and implemented.

Structure and Schedules :

Unstructured and unpredictable activities create a great deal of anxiety for most children with neurobehavioral issues. For this reason, each daily activity is planned and communicated with careful attention and purpose. Each activity is selected to promote needed skill building and incorporates expectations and tasks that are commensurate with the level of functioning and abilities of most children in the group. If there are children with needs and limitations that depart from most of the children on the unit, then individualized programming with necessary supports and modifications is implemented.

Daily schedules serve as visible aides for the day's activities and review of the schedule helps to frontload, or prepare, patients for transition to and from activities throughout the day. Schedules become routines that provide a sense of stability and predictability. From this secure base, patients gain a sense of control and security that allows them to test out new behaviors, thoughts and feelings. Staff collaborate with patients on daily activities so that patients have input, ownership and some control over the selection of therapeutic activities. (see examples).

Activities are selected to provide enough stimulation and interest to be engaging while not so much stimulation or complexity that it creates frustration, distress or conflict for the patient. Transitions from one activity to another are typically difficult for children with neurobehavioral issues so resources are dedicated to supporting patients through transitional periods throughout the day. Staff work to frontload the transition to provide a more gradual process of preparing for change. This is accomplished by such strategies as providing 15-, 10- and 5-minute warnings; putting items away and getting items out; showing patients the schedule in advance; and cueing the transition by turning off the lights for a five minute transitional quiet time. Additional tools may be used for children with extreme difficulty transitioning between activities. This could involve using social stories or task analysis/picture symbols.

Supervision –

In order to feel safe or progress to greater feelings of safety, children must know that their physical and emotional safety is protected. In order to demonstrate this felt safety, staff must be nearby and providing constant supervision. With effective, close supervision there will be fewer opportunities for the individual child and their peers to engage in unsafe behaviors. Close supervision will serve to create increased feelings of security and will provide opportunities to assist patients with co-regulating emotional states and practicing interpersonal skills. Staff remain nearby even during times of challenging behavior or distress so that the child continues to feel supported and cared for. Many children with trauma histories have not received that type of support from caregivers so this helps them to build trust and form healthy attachments.

Interpretation of Problem Behaviors –

Challenging behaviors are viewed as signals of underlying unsolved problems and lagging skills. Caregivers and professionals understand that the children and adolescents with neurobehavioral issues are developmentally, cognitively, emotionally and socially delayed and impaired. Problem behaviors are likely to emerge when societal expectations require them to behave or perform using skills that they lack. These situations are referred to as “incompatibility episodes” because the expectations are beyond the child’s capabilities and/or skill set.

Depending on the child and the severity of the skill deficits, behaviors can be subtle and less disruptive such as withdrawing or not paying attention; to severe and highly disruptive, such as turning over desks and attacking others. Focusing on the child’s problem behaviors in the heat of the moment is not prioritized in this model because this is considered downstream of the unsolved problem. Aside from providing necessary interventions to keep the child safe and process the triggering factors with the child, staff will benefit the child the most from proactively collaborating with the child to better understand the underlying unsolved problems and lagging skills that caused that specific situation to trigger problem behavior.

Basic Program Structure: 3 Phases of Skill Development

Overall Concept –

Across most healthcare disciplines and fields of study there is a concept of disease progression and course of treatment that describes a relative course away from or toward health; respectively. Along the way, there are typically characteristic markers of improvement or decline associated with the particular stages. Similarly, developmental psychology is rooted in conceptual stages of skill acquisition and growth. The human lifespan, itself, is characterized by a beginning, middle and end.

Thus, the stage or phase model lends itself well to the conceptualization of skill development and movement toward improved behavioral health; providing a roadmap to assess key transitional markers of progress along the path to restored health and function. As with developmental growth, once a developmental milestone is achieved and the neural pathways formed in the brain, it cannot be lost (aside from some type of catastrophic injury or trauma).

In the same sense, once behavioral, social, emotional, or cognitive skills are acquired they become fixed assets so to speak. It follows, that children will progress through treatment as they gain and demonstrate increased skills. They will not be dropped or demoted to previous levels if they fail to demonstrate those skills at a later time. Instead, this will signal that there is some factor that is causing them new difficulty in accessing and using the already acquired skill. This signal will mobilize the treatment team in further assessment and intensive intervention to assist the child in accessing skills and moving back on their course of treatment.

~ First Phase of Treatment – Learner Phase ~

The first phase of treatment primarily involves achieving greater degrees of psychiatric, emotional and behavioral stabilization. This phase of treatment varies based on individual needs and clinical acuity but typically takes a minimum of one month and ranges up to several months. In this initial phase, key tasks include psychiatric stabilization, medication management, establishing meaningful relationships, testing and evaluation, development and progression of treatment planning, milieu management and skill building.

The child is immersed in the structure and rhythm of the therapeutic milieu and is oriented to the expectations of the unit. During this time, adults provide more control over the structure of care because the child is typically unable to manage his or herself safely without such support and guidance. The adult caregivers (Meridell staff) work diligently during this phase to remain attuned to the child's needs and limitations so that they can anticipate and meet the child's needs and foster a relationship of trust with the child. It is through the security of these relationships that the child will feel safe enough to begin working through treatment issues in the next phases of treatment.

The primary therapeutic goal of Phase One is safety. At this phase, staff work with the child intensively teaching coping skills and self-regulation skills to combat impulsive aggression. For children with neurobehavioral disorders, aggression is frequently a by-product of lower brain fight-or-flight responses triggered by faulty interpretations of the world around them. Another common trigger is sensory stimuli and deficiencies in sensory integration; a brain-based etiology. Staff communicate to children that their Phase One goal is to demonstrate safe words and actions. For each day that they achieve this goal they will be awarded a phase card that will move them closer to Phase Two.

The child's attending psychiatrist will obtain a summary of neurocognitive functioning and deficits using a brief screening tool at admission. This will provide preliminary estimates of such cognitive factors as processing speed, working memory and overall cognitive functioning. These profiles will lend some initial insights about needed supports, accommodations and treatment interventions.

It is recommended that during the first week or two of treatment, in person family visits occur within the family therapy session at consistent times each week. This ensures that potentially difficult or conflictual issues related to family dynamics are contained within the safety and supervision of the therapeutic session facilitated by the child's therapist. Increasingly, as family therapy work progresses, the family will take on more independent interactions with the child including off campus passes in the community.

Medication:

Psychiatric stabilization is achieved through medication management and typically requires at least a month to identify effective medications and dosages. Often QEEG testing is ordered by the child's psychiatrist to help inform medication protocols based on abnormal results in particular areas of the brain.

Testing and Assessment:

During the first phase, we continue observation and assessment of the patient to formulate a more robust clinical picture of the patient's lagging skills, unsolved problems, family dynamics, developmental functioning level and areas of vulnerability. Testing options include the QEEG, Neuropsychological testing and Psychological testing. These tools often provide greater insight into the patient's intellectual, academic, social and emotional functioning. Overall abilities, as well as strengths and weaknesses, are identified and allow the treatment team to individualize interventions for patients. Identified weaknesses and lagging skills are targeted in the patient's treatment plan and interventions are delivered in a format suited to individual needs. For example, written process work may be provided to individuals with weaker verbal skills and accommodations can be provided in the classroom and milieu. Those with slow processing speeds may benefit from additional time, shorter assignments and simple, clear instructions.

Therapy:

Individual therapy during the first phase of treatment is primarily focused on increasing understanding of underlying clinical factors, establishing rapport and introducing education and support for skill building. Family therapy is developing in parallel and may be complicated by additional family stressors or illnesses. Expectations and goals for individual and family are created and communicated in the first phase of treatment. Therapists work with the child in individual therapy to learn and practice strategies for emotional regulation that will allow them to tolerate the increasing depth of therapy.

Outside of therapy groups, patients are supported by mental health staff and nursing staff in maintaining safe, emotionally regulated behaviors and continuing to work on their lagging skills and unsolved problems. The patient's therapist makes a point of spending time on the unit for observation and communication with core staff to identify areas of needed support and treatment.

Treatment Process :

At admission, the need for precaution orders is assessed based on the patient's previous history and current presentation. Those orders are reviewed daily. At intake, patients are presented with calming cart items, snacks and refreshments and introduced to therapy animals upon arrival. Patients are transitioned to the unit with their families and admissions staff, and provided a general tour of the campus. Upon arriving at the unit, either the unit staff and/or intake staff orient and tour the patient on the unit. The schedules, dayrooms, bedrooms, and other important spaces are shown to them. They are permitted to keep a comfort item during the intake and orientation process. Patients meet with their doctor, nurse and therapist during the orientation and are introduced to core unit staff on that shift. They are provided with pictures of core staff that are not present for the current shift.

Behavioral Expectations of Learners:

Unit expectations consist in general terms of Safety, Respect, Cooperation and Participation. Safety is defined as being safe with one's words and actions. Expectations for respectful behavior include using kind words when speaking to others. Cooperation and participation pertain to attendance in group and activities.

Learners are adjusting to treatment expectations and typically do not have the cognitive, emotional and behavioral skills to consistently meet all behavioral expectations. During Phase One, they are expected to experience difficulty meeting all unit expectations and are more likely to communicate their difficulties meeting expectations through problem behaviors. For this reason, expectations and daily treatment goals within the four broader categories of unit expectations are individualized for each child. Progress is then assessed on their relative skill development.

Our approach for children with neurobehavioral disorders is similar to that used for children with academic issues such as learning disorders or other disabilities such as speech/language disorders. We would not expect a child with a reading disorder such as dyslexia to read at the same grade level as the average classroom learner. Rather, we set in place appropriate goals, supports and accommodations to gradually move our learners toward relative gains in skill development.

Skill acquisition will be further supported by heavy reinforcement during early phases of treatment. Individualized reinforcers will be predetermined by the treatment team with input from the child. Youth will receive praise and feedback from staff as they demonstrate closer approximations of target goal behavior. Their daily schedule will be organized into 30-minute to 1-hour increments and they will be awarded points for achieving all of their individualized behavioral targets that they can exchange for tangible rewards on a twice daily schedule.

Further, they will accrue additional points based on their daily aggregate of scores across all behavioral categories and will be able to exchange these points for higher value items on a weekly basis.

Criteria for moving to Phase Two:

Given that the neurobehavioral model is based on the development of skills and increased competence with using these skills under conditions of novelty and/or stress we have identified two criteria for moving to phase two:

- 1) Children will demonstrate that they have developed sufficient self-management skills to maintain safe words and actions as evidenced by earning a total of 14 phase cards. Since phase cards are earned on a daily basis, the minimum amount of time that a child may earn Phase Two based on this criteria is 14 days. There is no maximum time as this depends on the individualized rate of skill development. For some children, 14 days may be possible. For most children with skill deficits significant enough to result in explosive aggression, it is expected to take a much longer period of time. On days that a child does not demonstrate safe words and actions they will not receive their phase card. However, they will not lose any of the cards that they previously earned.
- 2) Children will demonstrate that they have developed sufficient self-management skills to achieve 70% of their individualized goals in the unit expectation areas of safety, respect, cooperation and participation over a two week period.

~ Second Phase of Treatment – Explorers~

Behavioral expectations of Explorers

The second phase of treatment occurs when the patient has developed enough psychiatric stability, emotional regulation and control to be fully engaged and actively participating in treatment. Patients in this stage can identify and utilize several coping skills and strategies to maintain regulation and self-control more effectively and consistently. They have formed some relationships with staff, therapists and peers at this point and are able to communicate their needs and express their emotions more competently and predictably. Patients in this stage of treatment are typically able to spend the majority of their time actively participating in groups and activities with their peers while remaining safe. They have developed more insight into their underlying problems and have started to become more effective problem solvers. As a

result of clinical progress, many patients begin to experience greater engagement and motivation in treatment.

In parallel, the depth of family therapy has increased, and the therapist has achieved sufficient rapport to begin active exploration of family dysfunction and unhealthy dynamics that support or exacerbate the child's own mental health issues. The therapist continues to facilitate increased awareness among family members and teaches parenting skills, communication skills and other strategies for relating to one another more adaptively within the family system.

Although there are obvious indicators of progress at this stage of treatment, patients continue to exhibit lagging skills, unsolved problems and episodes of interpersonal conflict. There is much work left to be done to prepare the patient for success in a less restrictive environment. All of the components listed in the first phase of treatment continue into the second phase of treatment. The patient may experience several setbacks or relapses during this phase as they start to confront painful experiences, insights and realities. It is natural for the change process to generate anxiety as dysfunctional defenses are deconstructed and adaptive response styles are constructed. Insecurities, thinking errors and skill deficits are still present and confidence and ego strength is still emerging. The patient and/or family members may have identified certain realistic limitations of progress and the therapist may be working with them to identify ongoing needed supports in the community or home as well as acceptance for some of the limitations that will remain after residential treatment.

Children are expected in this stage to identify their own barriers and collaboratively develop plans to address or problem solve. They are expected to directly and genuinely communicate to others where they are in their course of treatment and acknowledge how much more needs to occur. Some children at this stage may begin to take on more of a leadership role within the milieu and provide peer support and encouragement to others. This is encouraged in therapy groups as the peers form a community that is expected to support and influence one another in a positive direction. Children with neurobehavioral challenges will continue to require adult support and feedback as they progress into more independent roles in the milieu.

In the second phase of treatment, the patient has started to transition from more surface level endorsement of therapeutic principles to a more authentic position where the clinical content learned throughout treatment has become increasingly internalized, or integrated into the child's value system and personal views. Whereas in Phase One, they were actively learning a set of several skills to be used to remain safe, in Phase Two they are actively practicing the use of learned skills in expanded contexts; a practice that leads to increase fluid reasoning. Fluid reasoning is the ability to apply concepts across various contexts.

Furthermore, as they practice these skills in various settings such as group, school, recreational therapy and family therapy, they are refining their skills as they receive increased feedback and corrective input. This refinement and increased competence is expected to cascade into improved self-esteem and interpersonal relationships; further reinforcing motivation for treatment. As the child's skill set is expanded across contexts and reinforced through natural reinforcers, it is expected that they will demonstrate increased respect for social rules and norms and improve overall in meeting unit expectations. Therefore, the phase goal for Phase Two is Respect.

Criteria for moving to Phase Three:

- 1) Children will demonstrate that they have developed further refined skills in social and interpersonal contexts evidenced by achieving a total of 21 phase cards for respectful, prosocial behavior.
- 2) In addition to the behavioral expectations described above, explorers are expected to progress from a minimum of 70% of daily points to a minimum of 80% of total points over a three week period.

In Phase Two, tangible reinforcers will no longer be provided on a daily basis as the child has attained sufficient self-control and self-management to work toward higher value, longer term goals on a weekly basis. Further, it is important to transition away from tangible daily reinforcers to social, naturalistic reinforcers closer to what they will experience outside of treatment. Available privileges will be characterized more in this stage by activities that allow greater freedom and independence as well as social responsibility.

Discharge planning is actively occurring in this phase of treatment in order to resolve any conflicts around home behavior agreements and expectations and ensure sufficient time for securing needed community resources. The therapist begins to help the family develop realistic and mutually satisfactory home behavior plans and safety plans with their child.

~ Third Phase of Treatment - Leaders ~

By the third phase of treatment, the child is able to consistently maintain safe behavior and manage emotions even under moderate levels of stress. Skills, treatment principles, and coping strategies acquired during earlier phases of treatment have become consolidated to such an extent that they have become characteristic of the child as a whole.

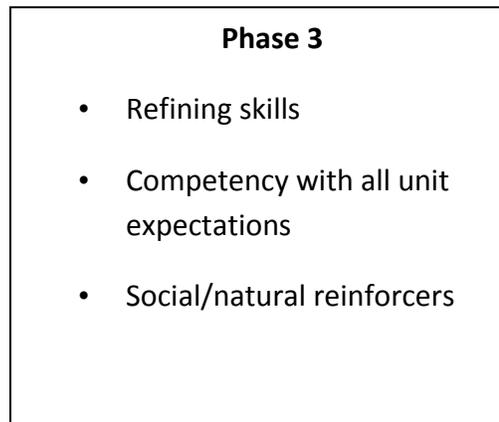
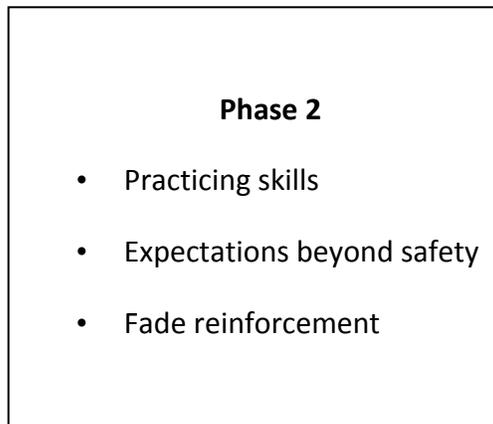
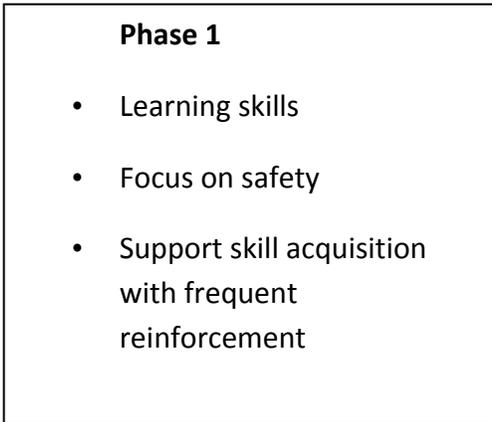
At this phase youth will demonstrate additional social responsibility by taking on more helping and leadership assignments. They will demonstrate increased insight and the ability to consistently communicate their needs in adaptive, prosocial ways. They will be capable of averaging 90-100% of daily points for four consecutive weeks and will have access to all available privileges and reinforcers.

~ Progression through Phases~

The neurobehavioral unit is made up of a heterogeneous group of youth with varying behavioral deficits, histories and capacities. As a result, youth are expected to progress through treatment at individual rates and idiosyncratic pathways. The pathway to progress is also non-linear and may resemble the “one step forward, two steps back” trajectory. It is important for staff to problem solve and use setbacks or behavioral incidents as opportunities to teach and model more adaptive skills. The goal should be on identifying approximations to healthier, adaptive behavioral responses and providing encouragement and support to meet individual goals.

Behavioral expectations and goals will be individualized for youth to match their specific competencies and deficits. If the general unit expectation is to demonstrate respectful language with peers, a child with greater communication and emotional regulation deficits may have their behavioral goal modified to “demonstrate respectful language with peers by third prompt.” For the behavioral expectation of maintaining timeliness for school, a particular child with sequencing and executive functioning difficulties may have a tailored goal of “completing hygiene routine with use of visual aide/chart by third prompt.”

In recognition of the greater programmatic objectives of increasing skills, improving competencies and building positive social relations, youth will not be “dropped” in their stage of treatment. If they have achieved a stage of treatment by demonstrating sufficient skills to attain that stage and begin to demonstrate problematic behavior again, privileges associated with that stage will be suspended while staff support the youth in identifying the causes for behavioral regression and problem solve strategies to progress youth back to their previous functioning level.



References

<https://www.socialthinking.com/LandingPages/Beyond%20Social%20Skills>

<https://www.livesinthebalance.org/research>

http://www.focusing.org/personality_change.html

<http://www.danielhughes.org/books---dvds.html>

[Bruce Perry, MD, PhD, "The Boy Who Was Raised As a Dog."](#)

Arvidson, Joshua , Kinniburgh, Kristine , Howard, Kristin , Spinazzola, Joseph , Strothers, Helen , Evans, Mary , Andres, Barry , Cohen, Chantal and Blaustein, Margaret E.(2011) 'Treatment of Complex Trauma in Young Children: Developmental and Cultural

Bonjerno, Ellen, "Behavior modification: considerations and limitations" (1978). *Master's Theses, Capstones, and Projects*. 536. <https://digitalcommons.stitch.edu/etd/536>.

Cancio, E. & Johnson, J. (2007). Level systems revisited: an important tool for educating students with emotional and behavioral disorders. *International Journal of Behavioral Consultation and Therapy*, 3 (4).

Greene, R.W., & Winkler, J. (under review). Collaborative & Proactive Solutions: A review of research findings in families, schools, and treatment facilities. *Clinical Child and Family Psychology Review*.

Sams, D.P., Garrison, D., & Bartlett, J. (2016). Innovative, strength-based care in child and adolescent psychiatry. *Journal of Child and Adolescent Psychiatric Nursing*, 29, 110-117.

Ollendick, T. H. (2016). Parent Management Training and Collaborative & Proactive Solutions* in the treatment of ODD in youth: Predictors and moderators of change. Presented at Symposium, *Advances in conceptualisation and treatment of youth with oppositional defiant disorder: A comparison of two major therapeutic models*, Eighth World Congress of Behavioural and Cognitive Therapies, Melbourne, Australia.

Murrihy, R., Wallace, A., Ollendick, T.H., Greene, R.W., McAloon, J., Gill, S., Remond, L., Ellis, D.M., & Drysdale, S. (2016). Parent Management Training and Collaborative & Proactive Solutions*: A randomised comparison trial for oppositional youth within an Australian population. Presented at Symposium, *Advances in conceptualisation and treatment of youth with oppositional defiant disorder: A comparison of two major therapeutic models*, Eighth World Congress of Behavioural and Cognitive Therapies, Melbourne, Australia.

Epstein, T., & Saltzman-Benaiah, J. (2010). Parenting children with disruptive behaviors: Evaluation of a Collaborative Problem Solving* pilot program. *Journal of Clinical Psychology Practice*, 27-40.

Martin, A., Krieg, H., Esposito, F., Stubbe, D., & Cardona, L. (2008). Reduction of restraint and seclusion through Collaborative Problem Solving*: A five-year, prospective inpatient study. *Psychiatric Services*, 59(12), 1406-1412.

Greene, R.W., Ablon, S.A., & Martin, A. (2006). Innovations: Child Psychiatry: Use of Collaborative Problem Solving* to reduce seclusion and restraint in child and adolescent inpatient units. *Psychiatric Services*, 57(5), 610-616.

Greene, R.W., Ablon, J.S., Monuteaux, M., Goring, J., Henin, A., Raezer, L., Edwards, G., & Markey, J., & Rabbitt, S. (2004). Effectiveness of Collaborative Problem Solving* in affectively dysregulated youth with oppositional defiant disorder: Initial findings. *Journal of Consulting and Clinical Psychology*, 72, 1157-1164.

Greene, R.W., Biederman, J., Zerwas, S., Monuteaux, M., Goring, J., Faraone, S.V. (2002). Psychiatric comorbidity, family dysfunction, and social impairment in referred youth with oppositional defiant disorder. *American Journal of Psychiatry*, 159, 1214-1224.

Pollastri, A., Epstein, L., Heath, G., and Ablon, J., 2013. The Collaborative Problem Solving Approach: Outcomes Across Settings. *Harvard Review of Psychiatry*, v. 21, p. 188-195.

Mohr, W., Olson, J., Branca, N., Martin, A. and Pumariega, A., 2009. Beyond Points and Levels Systems: Moving Toward Child-Centered Programming. *American Journal of Orthopsychiatry*, v. 79, no. 1, p. 8-10.

Pollastri, A., Lieberman, R., Boldt, S. and Ablon, J.S., 2016. Minimizing Seclusion and Restraint in Youth Residential and Day Treatment through Site-Wide Implementation of Collaborative Problem Solving, *Journal of Residential Treatment for Children & Youth*, pp. 185-205.

Stewart, S., Rick, J., Currie, M. and Rielly, N., 2009. Collaborative Problem-Solving Approach in Clinically-Referred Children: A Residential Program Evaluation. Prepared for the Center of Excellence in Children's Mental Health, Children's Hospital of Eastern Ontario, EIG #901.

Pollastri A.R., Rosenbaum C., Ablon J.S. (2019) Disruptive Behavior Disorders. In: Wilson H., Braaten E. (eds) [The Massachusetts General Hospital Guide to Learning Disabilities Current Clinical Psychiatry](#). Humana Press, Cham. Assessing *Learning Needs of Children and Adolescents*.pp. 207-220.

Rafferty, J, Steinke, C. & Nickerson, A. (2010). Engagement, Residential Treatment Staff Cognitive and Behavioral Disputations, and Youths' Problem-Solving. *Child Youth Care Forum*, 39, pp. 167-185.

