

Neurobehavioral Management in Inpatient Rehabilitation

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Objectives

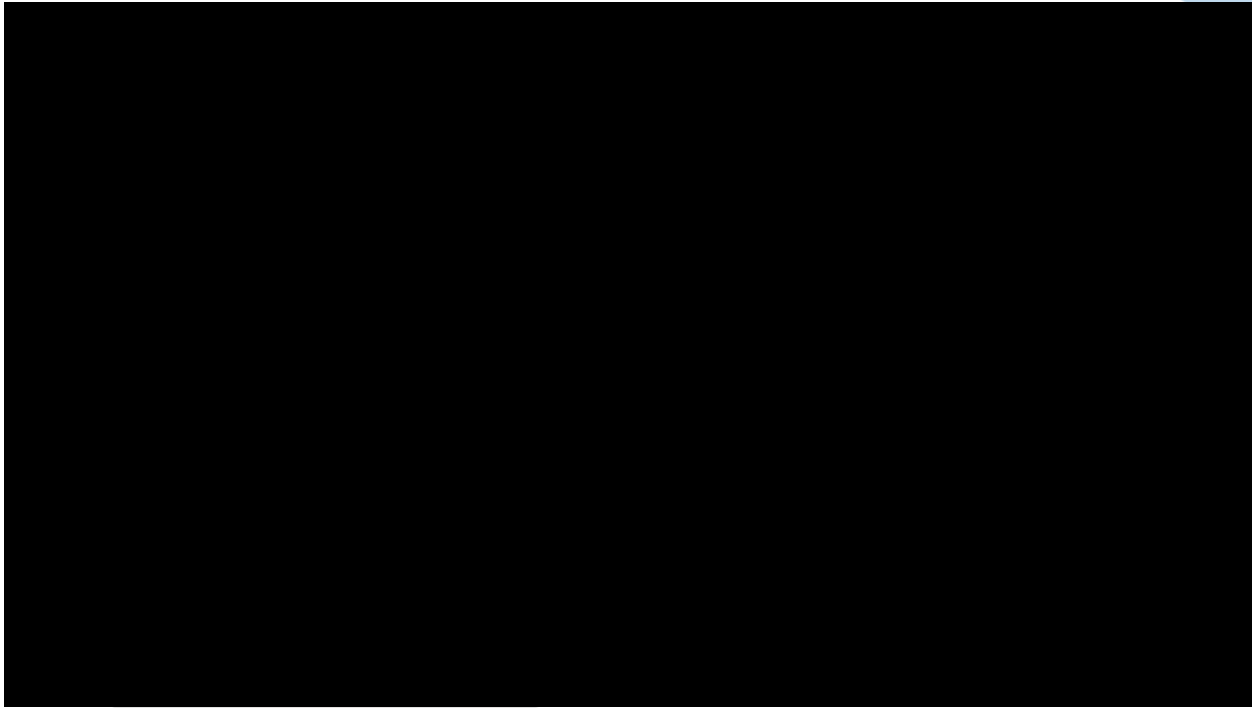
- Facilitate skill development, critical thinking, and therapist confidence to successfully support the rehabilitation of patients with traumatic brain injury.
- Provide tools to identify, analyze and successfully provide interventions to address maladaptive behaviors
- Foster clear and effective communication to maximize collaboration between clinicians, patients and families

What is Maladaptive Behavior?

- Why are we here? – Craig Hospital



What is Maladaptive Behavior?



Deer in headlights



Therapy



Basic Concepts for Patient Management

1. Know and observe patient *Behavior*
2. Use a *Team Approach*
3. Create a *Therapeutic Environment*
4. Plan for *Therapeutic Interactions*

Team Approach

- Team workflow
- Communication
- Behavior Management Plans



Team Workflow

Nursing (RN/Tech):

- CNC: email behavior plan to unit. Print behavior plan and post in the cubby, and schedule book. Communicate details of plan verbally in rounds.
- Review written behavior plan before each shift working with the patient, to assure the most up to date information is obtained. Initial each day to indicate understanding of behavior plan.
- Communicate observations regarding behavior (bowel/bladder, triggers, appetite, fatigue, pain, stimulation, etc.) to team.
- Encouraged to attend rounds/behavior meetings.
- Encouraged attending therapy sessions to gain confidence with routines, transfers, and communication.
- Maintain flexibility and consistent staffing per direction of CNC, to maximize best outcomes for patients.

Occupational Health/Safety:

- Consistently communicate details of all injury reports to team in order to maintain situational awareness throughout patient's stay.
- Offer support to all disciplines in the event of a physically or psychologically injurious event including advocating for increased safety measures if necessary.

Medicine/Psychology:

- Email written behavior plan to team (therapies, nursing, CNC)
- Update written behavior plan as needed, and reissue to all team members.
- Provide support/education about neurobehavioral changes to patient's family/caregivers as needed.
- Update team on medication changes and possible resulting behavioral changes.



PATIENT
& FAMILY

Chaplaincy:

- Offer spiritual and emotional support to family
- Support family's individual faith and spiritual traditions
- Communicate family and patient faith and spiritual preferences with team
- Provide individual staff, or team with support and guidance

Therapies:

- Identify routines and activities to structure therapy schedule and downtime.
- Communicate routines and ideas for structured activity, mobility, and communication/cognition in writing and verbally to interdisciplinary team.
- Offer co-treat times for nursing staff to increase confidence with daily routines, transfers, and communication.
- Follow through with all scheduled sessions, regardless of agitation.
- Maintain flexibility in schedule times to honor the patient's need to move at their own pace.

Clinical Care Management:

- Educate family on TBI and phases of recovery
- Educate family on team recommendations for behavior management
- Support and encourage family to take rest, and provide education on caregiver burn-out.
- Provide team with information regarding family dynamics and coping
- Communicate patient history (personality, likes/dislikes, occupation, family, psychosocial, etc)

Communication

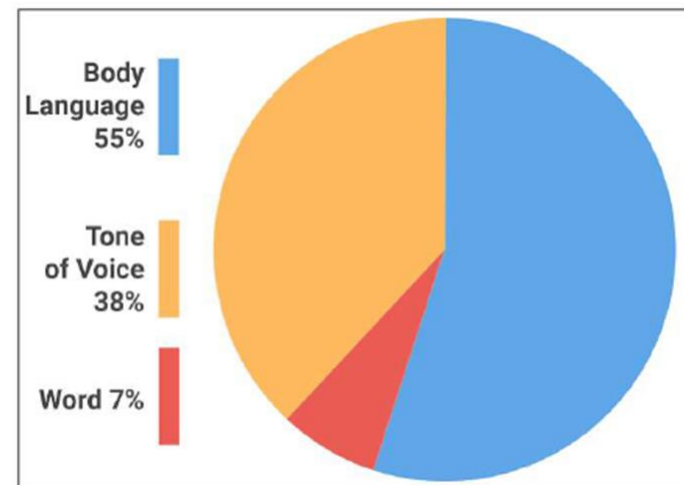
How are you presenting yourself?

- Internal Factors

- Attitude and positive regard for patient
- Mood
- Motivation
- Good at multi tasking
- Tolerance for rapid and constant change
- Ability to assess temperament
- Understanding of own vulnerabilities

- External Factors:

- Body language:
 - arms crossed
 - eye contact
 - volume of voice



Behavior Management Plans

- Behavior plan format
 - Short and long term goals
 - Tangible achievements - Projected functional outcomes
 - Definition of target behaviors
 - Behaviors that interrupt therapy
 - Impede progress
 - Endanger others
 - Disrupt activities
 - Data collection
 - Frequency, timing and duration of behaviors
 - Staff procedures
 - How to arrange environmental conditions to reduce chances of behavioral episodes
 - Outline response options for staff

Client Protection Plan Example

- Before you help me:
 - Tell me what you are going to do (avoid startle response)
 - Touch me gently so I can get ready
- Wait a moment so I can adjust when you see me:
 - Frown over left eye
 - Purse my lips
 - Try to cough
 - Begin to drool
- Completely stop what you are doing when you see me:
 - Frown, purse my lips, and pull back the corners of my mouth
 - More than usual drooling
 - Increase body tone
 - Turn my head away from you

Therapeutic Environment

- Safe
- Low stimulation
- Access to variety of activities
- Rest time

Environmental Safety Check

- Environment/External Factors
 - Physical environment
 - Exits, sound, temperature
 - Pictures, distractions
 - Attire
 - Mobility
 - Necessary items
 - Cluster cares
 - Work in pairs



Low Stimulation

- 5 Senses
 - Sight
 - Sound
 - Smell
 - Taste
 - Touch
- Reduce distractions
- Number of people
- Mindful use of TV
- Cross talk
- Clutter
- Introduce yourself

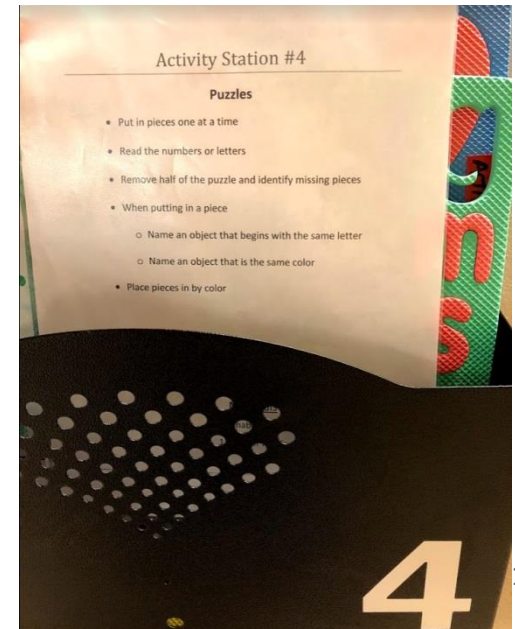
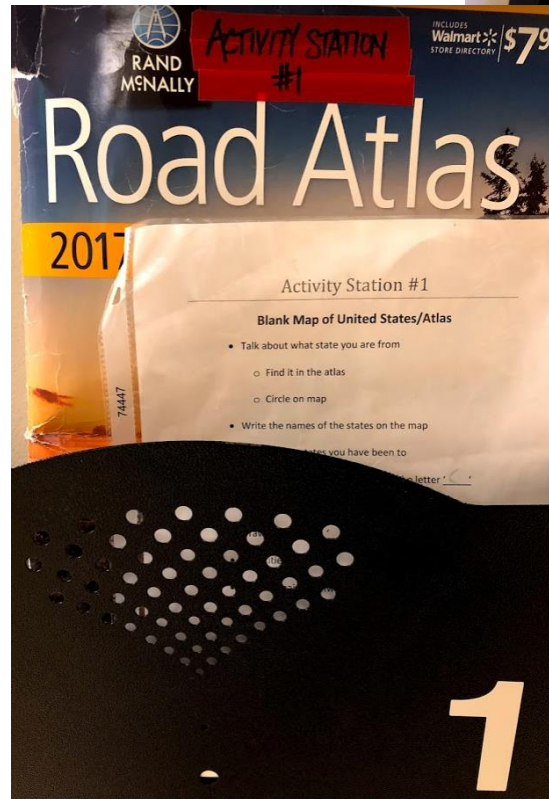
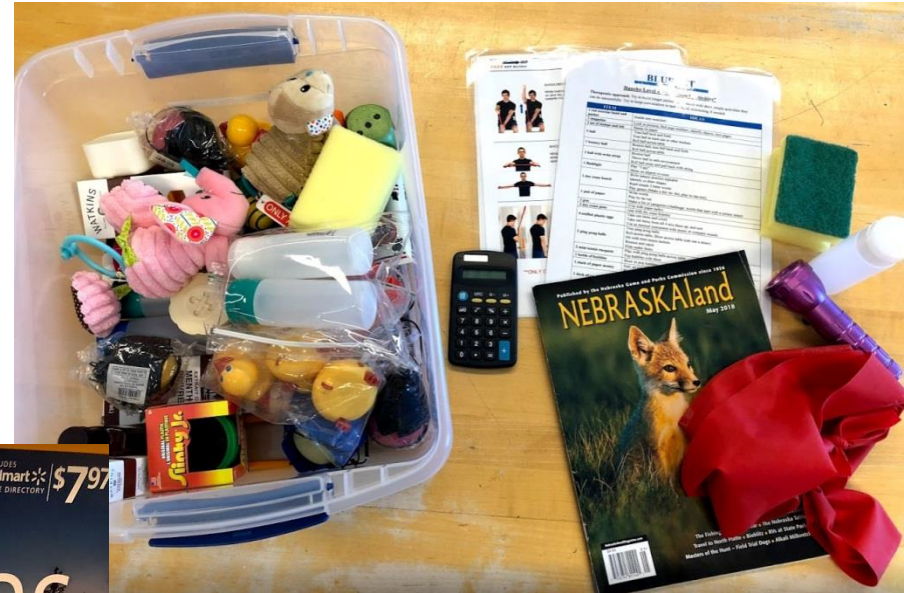


Environmental Stimulation



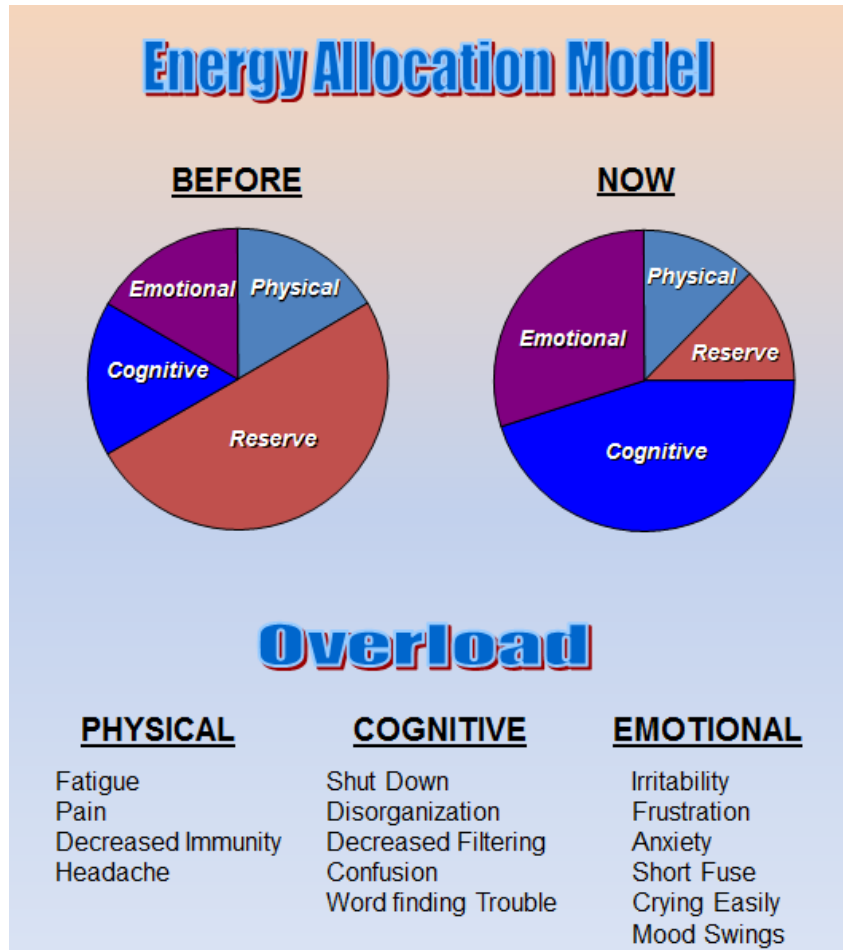
Variety of Activities

- Activity stations
- Activity boxes
- Wheelchair biking
- Walking
- Therapies



Fatigue

Rest Periods



- Scheduled mid-day break
- No TV or devices
- Room should not be fully dark
- Allow for quiet, if not actually sleeping
- Should not sleep for more than about 1 hr.

Therapeutic Interactions

- Communication Tips
- Providing Choices
- Errorless learning
- Over-plan
- Task analysis
- Remain calm

Maximize Effective Communication

BIG Face

Body Language, Intonation, Gestures, Facial expressions

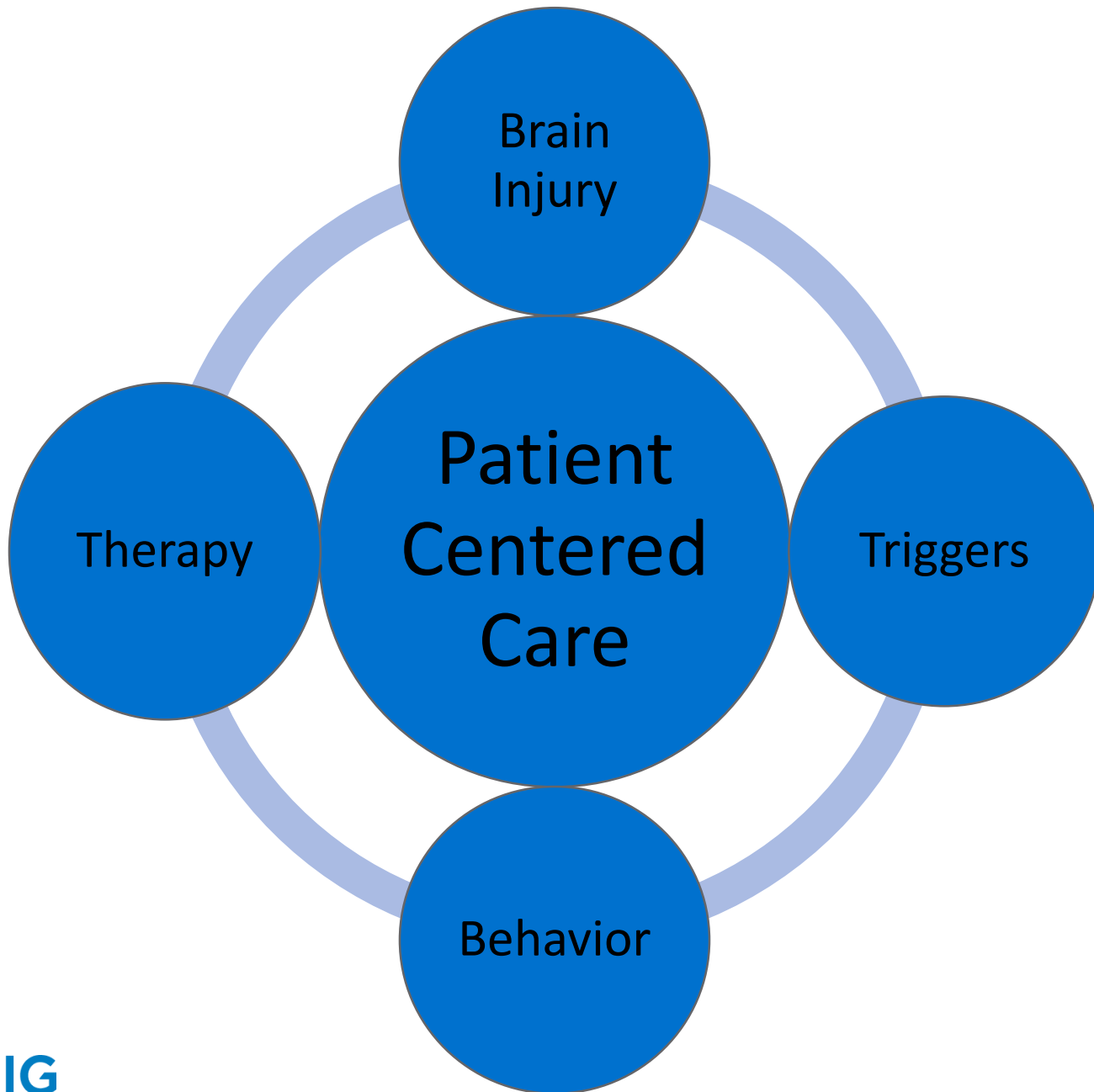


Errorless Learning

- Addresses Procedural learning tasks
- Principles:
 - Break down tasks
 - Provide modeling before practice
 - Do not allow guessing
 - Use prompts to avoid errors
- Increases patient success, lowers rate of frustration
- Gradually wean prompts /assist while maintaining success rate

Crisis Management

- Behavior Modification Ethics
- ABC Model of Behavior
- Prevention
- Intervention



Definitions of Behavior

ABC model of behavior

- ***Antecedents*** – cues that occur before a target behavior and increase the probability of a given response.
- ***Behavior*** – the way in which a person acts in response to a particular situation or stimulus
- ***Consequences*** – event immediately following a behavior, cumulatively have an influence on whether a behavior occurs again.

Antecedent

- What happens before an event?
 - External – lighting, noise, verbal instruction
 - Internal – h/a, flu, seizure, medication
- Steps to follow
 - Rule out - Pain? Medication side effect? Cluster/chain of related behaviors
 - Identify environmental or social triggers
 - Control/avoid those
 - Support with opportunity to gain internal locus of control
 - Provide choices in programming/behaviors

Observation

Baseline vs moving away from baseline

- Posture
- Facial Expression
- Voice Quality
- Eye contact
- Breathing
- Skin tone
- Environment

Needs Assessment and Triggers

How can knowledge inform your care?

- Background
 - Culture
 - Family system structure
 - Psycho-social history
 - Medical conditions
 - Trauma or substance abuse history
 - Occupation
 - Likes, dislikes

What observations can you make about the patient?

- Fatigue
- Change of environment, routine, staff
- Responses to overwhelming or misleading stimuli
- Excessive demands
- Patient Need
 - Pain, hot/cold, bowel/bladder needs, position, safety, confusion
- Consider impact of injury – double vision, dizziness

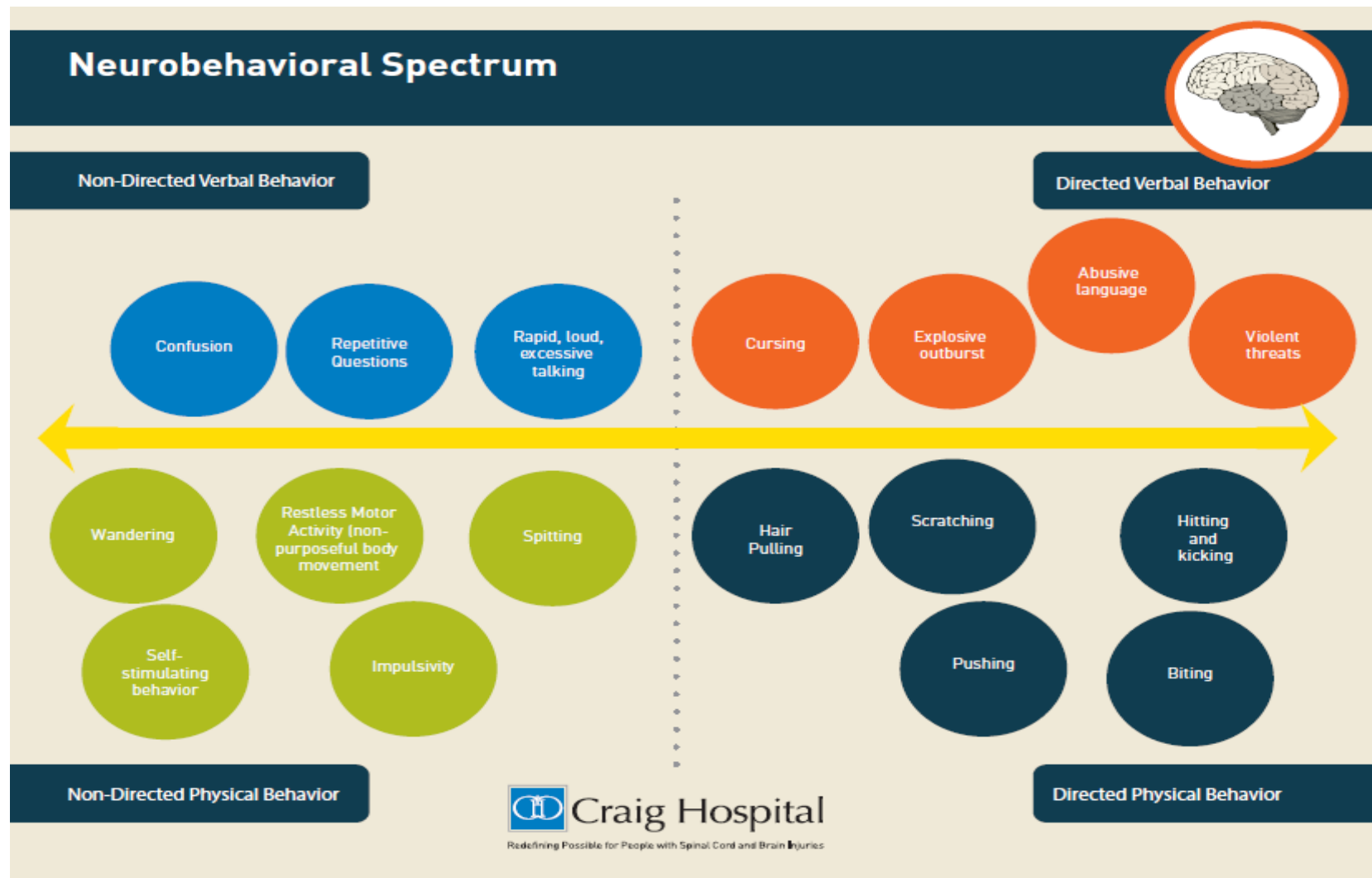
Maladaptive Behavior

- It is not a synonym for bad behavior, rather, it is behavior that is inadequate, inappropriate or excessive in a given situation
 - Dysfunctional
 - Non-productive
 - Often irrational

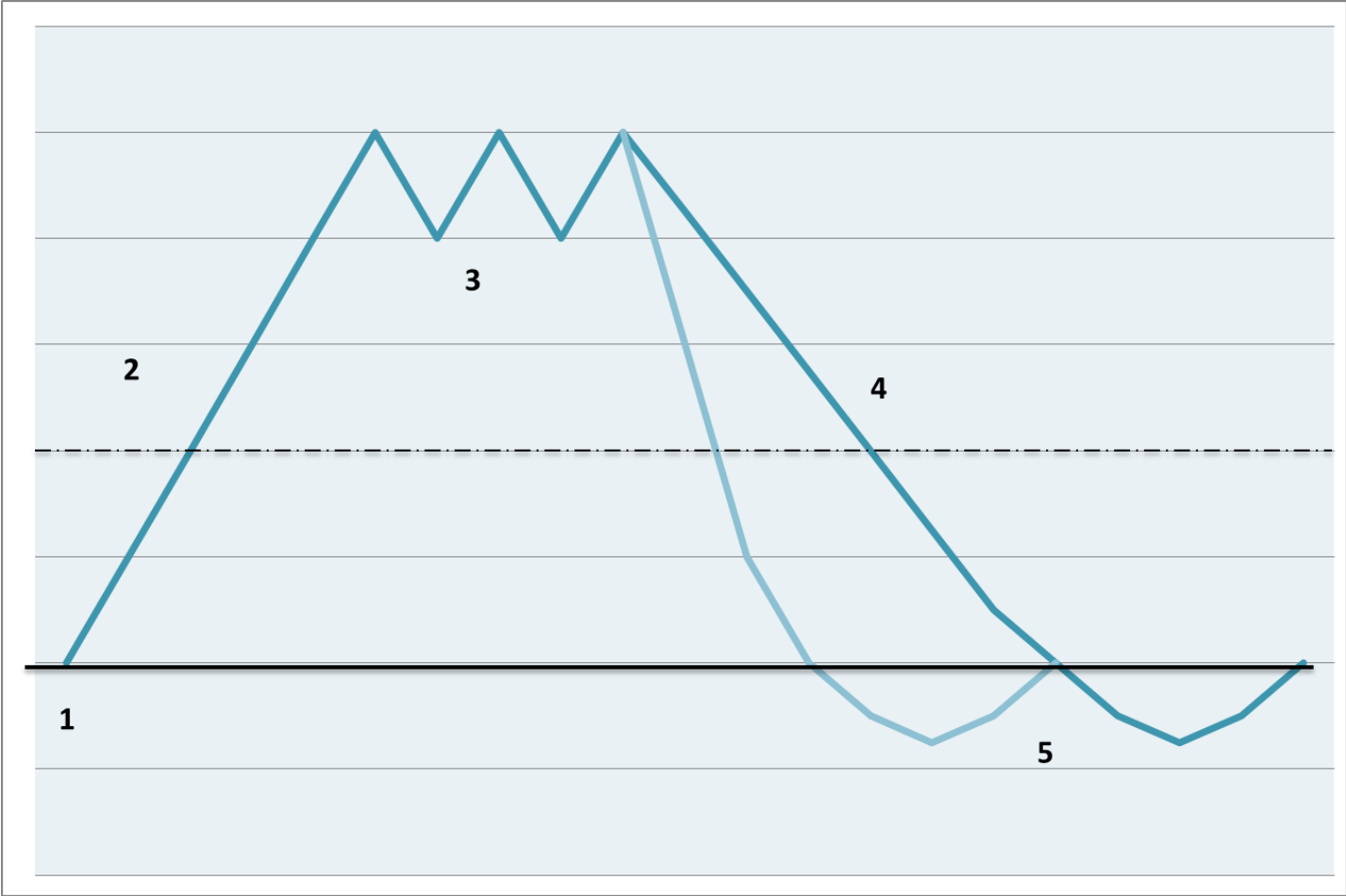
Descriptions of Behavior

- Occurring too often (in excess)
- Occurring not often enough (in deficit)
- Not occurring in correct context
- Assessment
 - Agitated behavior scale
 - 14 items, multi-disciplinary assessment, score >21 is agitated
 - Who, What, When, Where, Why, How? How long, how intense?

Neurobehavioral spectrum



Neurobehavioral Stress & Assault Cycle



Behavioral Consequences

- Impact the future rate, duration and intensity of the behavior
- How does a behavioral response benefit the patient?
 - What do they____?
 - Get?
 - Escape?
 - Avoid?

Interventions

- Verbal Alternatives
- Redirection
- Calming techniques
- Behavior Replacement
- De-escalation
- Physical interventions

Goal of Interventions

- Goals of behavior management as a part of rehabilitation:
 - Decrease maladaptive behaviors
 - Teach what not to do
 - Increase appropriate behaviors
 - Teach what to do
 - Behavior replacement

Obstinate patient case

- What is the identified behavior?
- What were the antecedents?
- What were the consequences?
- Approach?

Cody is a 24 year old male, who was injured in a motor vehicle accident. He currently presents as a Ranch IV. He has a diffuse axonal injury with fronto-temporal lobe involvement. Cody is positioned in his manual wheelchair with lock belt secured. Two staff members and 2 family members are in the room with Cody. It is a beautiful, sunny, Colorado day and Cody's mom has opened the blinds to let the sunshine in. One staff member is educating Cody's family on TBI recovery, while the other is helping Cody fill out his lunch menu. Cody attempts to self-propel his wheelchair across the room. When asked to remain in place, he begins to speak with an increasingly loud voice, and make direct eye contact. At that time, Cody's parents and staff step closer and verbally offer him several choices to "calm him down". Cody then begins yelling insulting comments directed at both staff and family, he firmly declines all choices offered and continues yelling inappropriate comments as he attempts to get out of the door.

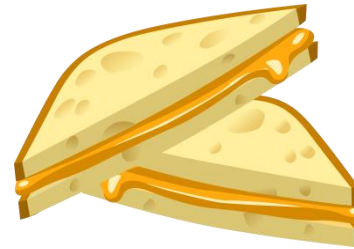
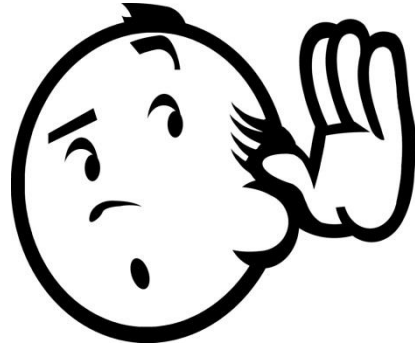
Verbal Alternatives

- Ask permission
- Patient specific incentives
- Rephrasing to include choices and options
- Inform patient ahead of time about upcoming transitions
- Using simple written lists



Patient Specific Incentives

Listening
Games
Time
TV
Privacy
Music
Rest
Touch



Food or Drink
Freedom
Phone
Passes
Calls
Praise
Recognition



Redirection

- Working from:
 - Where they believe they are
 - Their reality/goals
- Redirect to:
 - Something immediate and concrete
 - Something of interest to the person
 - Something the person can do successfully

Calming Techniques

- Therapeutic breath
- Grounding
- Decrease distractions
 - Vision, Touch, Hearing, Smell, Taste



Behavior Replacement

Positive Replacement

- Designed to increase the frequency or duration of a behavior
 - Teach new skills
 - ADLs, functional communication, social skills
 - Part practice
 - Whole practice
 - Rewards for completion/participation

Negative Replacement

- Designed to decrease a behavior
 - Keep hands in lap → incompatible with hitting
 - Reinforcers are given for a specific time interval during which a behavior does not occur

Physical patient case

- What is the identified behavior?
- What were the antecedents?
- What were the consequences?
- Approach?

Around 1:15pm Cody was in his tilt –in-space wheelchair with a lock belt secured. Cody became increasingly restless and started to remove his shirt, shoes, and pants. Cody was scheduled for a therapy session at 1:30 and was asked to put his clothes back on. Cody continued to remove his clothing and move around restlessly in his chair. When Cody was asked again to put on his clothing he firmly replied “No”. At that time, staff stepped in and started pulling his pants back up. Cody first grabbed the staff’s hands and then swiftly punched her in the chest.

De-Escalation

Disengagement: the key to success



De-escalation

- Verbal and Non-verbal techniques
 1. Respect personal space
 2. Do not be provocative
 3. Establish verbal contact
 4. Be concise
 5. Identify wants/needs
 6. Set clear limits
 7. Offer choices
 8. Debrief the patient and staff

Physical Skills

- Therapeutic Holds
 - Hair pulls
 - Arm grabs
 - Nails/Bites
-
- Consider principles of disengagement, reduced leverage and control

Education and Learning



- Debriefing
- Documentation

De-briefing after Escalated Event

- What happened?
 - Antecedents – Behaviors – Consequences
- What went well?
- What didn't go well?
- What can we do better?
 - Track certain triggers
 - Monitor antecedents
 - Intervene sooner

The definition of insanity
is doing the same thing
over and over and
expecting different
results.

Documentation

- Just the facts
- Agitated event
 - Include components of Debriefing
- Ethical
- Indicator of Medical Necessity
- Considerations for Progress
- Identifies Skilled Care

Summary

- **Build Critical Thinking**
 - Every injury is different, usually multiple injuries result in patient presentation
- **Cultivate Professionalism and Identify Tools**
 - TEAM approach to care
 - Neurobehavioral Interventions
- **Foster Clear and Effective Communication**
 - This takes collaboration!

Foster Collaboration





Questions or Comments?

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