ICE Case Study

LEARNING ACTIVITY
Focus on Clinical Reasoning

Learners should watch the case with a focus on therapist actions and patient outcomes. WHY does the therapist do what he/she does? How does the patient respond?

Occupational Profile

Ben is a 20 year old male, admitted for MVR with subsequent L MCA Aneurysm that results in RUE hemiplegia. His PMH is significant for drug abuse and HIV. He currently has sternal and standard precautions (with evidence of sternal healing). His deficits include RUE function, cognition, functional mobility, and possibly visual perception.

Ben lives with his father in a 2-story home. Although his father works full-time, Ben is unemployed and is unable to state his current goals. This may be due to cognitive deficits but may also be related to his limited occupational roles prior to admission. His father reports that Ben was independent in ADLs and IADLs, but worked part-time in retail for a short time after his high school graduation. Family goals are for Ben to return home, but it is important that he re-gain some function in ADLs and mobility within the home. If safety awareness improves, Ben's father would like to be able to leave him during the day when he works.

Other discharge options may be explored depending on Ben's progress in acute care and level of supervision / assistance needed upon discharge.

Model of Practice

The PEO model addresses the dynamic relationship between the person, environment, and occupation in order to maximize occupational performance. In acute care and rehabilitation, the focus will be on remediating Ben's motor and cognitive function as much as possible. His young age makes neuroplasticity possible, so hopefully functional gains can be made through therapy. The hospital environment may be somewhat limited related to the discharge goals; however it is a good place to start to limit external stimuli, facilitate safety for Ben, and provide a controlled environment in which to pursue the improved motor and cognitive skills. Ultimately, the home environment will have to be considered in discharge planning, however. This must be addressed with Ben's father so that additional supports could be arranged if necessary prior to Ben's return to the home environment. Finally, occupational performance is addressed through the selection of therapeutic activities that will be utilized to address Ben's deficits and capitalize on his strengths. Using familiar occupations in therapy, such as ADLs, and basic mobility that will be needed for the home environment, will facilitate improved function.

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Frame of Reference

A neuro-developmental (or sensorimotor) frame of reference will guide OT service delivery for Ben. This approach is appropriate to address the sensory and motor effects of the aneurysm, as it attempts to use a variety of input to assist the brain to re-organize, thereby improving function. It follows a developmental approach, addressing simple motor control before attempting very complex tasks. However, many neuro-developmental approaches emphasize the use of normal and functional activities to provide the sensory input in patterns of normal movement. Specific techniques of this FOR may include weight-bearing, weight-shifting, bilateral movement patterns, and crossing the midline. The neuro-developmental FOR will influence Ben's motor skills; use of additional frames of reference (based on cognitive or behavioral approaches) may need to be combined with this FOR to address the his cognitive skills and safety awareness.

What information from the case is relevant for each type of clinical reasoning?

Describe how the therapist performed this type of reasoning or how it was used to guide evaluation and/or intervention.

Scientific

The therapists in the videos understand the expected outcome of Ben's diagnosis. They assess for tone and motor control as influenced by neurological function, not just ROM, strength, or endurance that might be associated with the MVR. They also understand how to deliver effective instructions, cueing, and direction in simple, direct commands. Finally, the therapist uses calm, short responses as a means to control Ben's frustration during ADLs.

Procedural

The therapist sequenced interventions appropriately, such as checking BP prior to moving Ben to ensure his safety during mobility activities. She considered both the person aspects (BP) and environment aspects (chair placement) of the PEO model when considering the best procedure to positively influence his performance. Similarly, seated ADLs were completed prior to standing ADLs to ensure Ben's safety. Finally, the therapists made repeated attempts to include Ben's RUE during ADL tasks, in accordance with the neuro-developmental FOR.

Pragmatic

Some of the evaluation activities were shorter than expected, due to Ben's low frustration tolerance and low endurance. Rather than pushing Ben to complete all aspects of the evaluation on the first visit, different therapists were able to collect different data and share with the treatment team. In addition, to perform the functional activity of LE dressing, the therapist used scrub pants as they were readily available in

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the setting and were loose fitting so they could be managed easily, even though this is not what Ben likely wears in his typical environment.

Narrative

Both therapists in the video cases listen to Ben's concerns and address them appropriately. For example, when he reports dizziness they guard him closely, check BP, and ensure his safety. When he expresses frustration or pain, they respond by changing his position or the activity slightly, even as they understand the challenges of his cognitive and sensory dysfunction.

Interactive

Although the therapists respond to Ben's complaints, they do not stop their interventions or allow this to limit participation in therapy. For example, when washing his hands, Ben expresses pain. Rather than allowing him to stop using the affected RUE, the therapist encourages and supports bilateral activity participation. When his BP is unstable, the therapist explains this to him in a way that is clear and appropriate for his level of cognition. However, she continues to encourage him to stand safely.

Conditional

Including Ben's father in goal setting and discharge planning are necessary to guide interventions appropriately. His length of stay is longer than typically seen in acute care; however, the team may be able to justify this based on the possibility of Ben being unsupervised at home while his father works. Other discharge options may need to be considered to address his history of addiction. .

Ethical

One clear ethical concern is how strictly sternal precautions must be followed, since many of the activities in the neuro-developmental approach might be in some conflict with this (i.e. weight bearing through the UEs). The therapists are able to modify the activities slightly to decrease the amount or degree of weight bearing to protect sternal healing, but they also are able to advance this treatment technique as time goes on. They check the sternum for healing, and presumably confer with the physician and treatment team to ensure that both the intervention techniques for motor control do not put Ben in any danger of healing from the open heart surgery.

Critical Reflection Questions

What did the therapist do well, that resulted in patient improvements?

- Gave direction appropriate to client's levels of cognition and frustration
- Incorporated neuro-developmental techniques with the potential to improve motor skills

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- Therapeutic use of self- speaking quietly and calmly when Ben was frustrated, stooped to his seated level to facilitate partnership rather than authority
- Ensured safe environment – both therapists had others in the room as "stand-by" for safety to place chair where needed so they could continue to guard Ben from falling
- Encouraged Ben to continue to participate, even if his first response was to decline (i.e. when standing to brush hair, he initially said no and therapist encouraged him to "give it a try")

What could be improved if it could be done again, or in a subsequent session?

- Work towards consistency in transfer techniques (allowing him to pull on bed rail made sense as we watched so he could stand; however we typically don't let patients pull as not all surfaces are secure enough to allow it.)

Did you see the therapist make adjustments DURING the session? Why was this done?

- Yes, therapist adjusted tone of voice, level of instructions according to Ben's frustration tolerance / behaviors
- Therapist allowed Ben to put on shirt ineffectively first, and to let him learn from his mistakes rather than to correct him first. This was a good way to manage his frustration and maintain good rapport.

What was meaningful about this case? How could you encode, retrieve and reuse this case?

- Managing difficult behaviors / frustration
- Managing multiple diagnoses
- BP interpretation
- Bilateral integration in ADL interventions
- Balance / guarding techniques

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