

## LEARNING ACTIVITY Focus on Clinical Reasoning

Watch the suggested videos and view the completed examples below to understand the possible depth and breadth of student assignment responses.

### Occupational Profile

Dr. T is an 83 year old male, who was working as a pathologist. He has a history of worsening spinal stenosis and spinal cord compression for at least 2 years, including symptoms of paresthesia and declining strength. Once diagnosed, he continued to work until the condition had a significant impact on his function. Dr. T underwent C3-C7 laminectomy and fusion (7/13) with post-op anemia, neurogenic bladder, and incomplete quadriplegia. He participated in in-patient rehabilitation for 2 weeks and then returned home. Dr. T experienced declining function and both he and his wife fell while attempting to perform a transfer. He was then admitted to SNF rehab unit to resume therapy. PMH is significant for HTN, right shoulder adhesive capsulitis, rotator cuff tear, and tendinitis. Upon admission to SNF rehab unit, cervical precautions were lifted by M.D. There are no current restrictions to activity, although fall precautions are observed. His speech volume is decreased.

Dr. T has been living with his wife in a 1 story home with 2 steps to enter (right ascending handrail). He also has an adult daughter who lives about 20 minutes away and who participates in his care and in healthcare decision-making. Dr. T had begun using a rolling walker prior to surgery, but ambulation is now significantly limited to very short distances with a platform walker. Other DME currently available at home is a tub transfer bench.

Dr. T's strengths included functional cognitive function and problem-solving abilities, and motivation to return home and improve his ADLs and functional mobility. The primary goal expressed by Dr. T and his family were safe and independent transfers. However, they also agreed that improved ADL performance and functional mobility would significantly ease the caregiving burden on his family and facilitate his return to prior roles. His daughter described that he is more cooperative and compliant with rehab professionals than he was with family at home. He explained this is due to lack of expertise of family and he described some fear of falling during movement. Dr. T shared that he is an elder in his church and has been involved there as a teacher; he would like to return to this role within the next 2-3 months.

### Model of Practice

The Model of Human Occupation (MOHO) explains competent and effective occupational performance through the interaction of the physical and social environments, with three inter-related components of the person. These subsystems of human capacity include the volitional, habituation and performance subsystems.

The volitional subsystem refers to an individual's motivation and interests in occupations, the sense of confidence or effectiveness in completing these occupations, and the value of these activities to the individual. In planning interventions for Dr. T, the volition subsystem supports the use of ADLs and functional mobility activities directly, rather than a focus on therapeutic exercise or preparatory activities. Feeding, for example, is a skill that would be valued in Dr. T's family and social roles as an occupation that should be completed as independently as possible. Similarly, his participation in functional mobility should not just be measured in distance, but in his ability to access his church and resume his teaching role. The habituation system refers to an individual's habits and routines in performing daily activities. Even though Dr. T's LUE AROM is slightly greater than his RUE, he tends to eat with his dominant, R hand. Rather than trying to change this, his occupational therapist utilizes optimal positioning, environmental support, and adaptive equipment to develop new habits and routines that will facilitate independent feeding. Finally, the performance subsystem is used to describe an individual's physical, cognitive, and emotional performance. Dr. T's cognitive skills support the use of problem-solving strategies to maximize his physical skills such as balance and strength. In addition, the use of adaptive equipment and compensatory strategies will improve occupational performance, as his recovery from the incomplete quadriplegia and co-morbidities may prevent a full return of full physical skills.

### Frame of Reference

The rehabilitative frame of reference will guide therapeutic service delivery for Dr. T. This approach will not rely on physical recovery, as the spinal stenosis was advanced when surgery was undertaken, and since there are co-morbidities such as right shoulder adhesive capsulitis which may preclude full return of range of motion and strength. Activities of daily living and functional mobility can be improved through the use of appropriate adaptive equipment, compensatory techniques, and assistive devices. This approach will maximize occupational performance by utilizing existing cognitive and motor skills to develop new techniques of performance that can support Dr. T's goals.

It is important that this frame of reference is not used in isolation; a neurodevelopmental approach should be considered in a long-term approach to recovery, so that if spinal cord function returns, motor skills can be improved. This would be expected to follow a developmental sequence. Trunk stability could be facilitated first, to maximize functional mobility and upper extremity use.

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 understand how the spinal stenosis and C3-C7 laminectomy influence the quality and extent of movement, as well as resulting functional performance. Therefore, they use remediation approaches to influence the spinal pathways in balance and proximal stability. However, given Dr. T's co-morbidities and prognosis for improvement, they also consider adaptive approaches for a faster and potentially more effective return of ADL and functional mobility performance.

### Procedural

Interventions were focused primarily on functional tasks, as appropriate given the volitional and performance subsystems of MOHO. Total intervention sessions, which are separated into video clips, could follow an appropriate sequence of beginning with the neuro-developmental techniques, followed by the functional activities which may be improved as a result of those techniques.

### Pragmatic

Use of the balloon activity for balance and endurance training would not typically be an activity performed by an older adult who was working as a pathologist prior to admission. Therefore, the goals of the activity related to balance, range of motion and improved quality of movement would need to be clearly explained to Dr. T prior to initiating the activity. In addition, an occupation-based activity should follow the balloon activity, to implement any gains in a meaningful occupation.

### Narrative

The video in which Dr. T and his family members come together to discuss the course of his care is essential in completing an accurate occupational profile and understanding his goals for therapy. In addition, this was valuable in understanding why his performance at home was different from his performance in therapy.

### Interactive

The therapists effectively use interactive reasoning to engage Dr. T in problem-solving functional tasks. The occupational therapist, for example, discusses the best arm positioning and explores various types of adapted utensils for the feeding session. When Dr. T explains what he believes will or will not be effective for him, she is able to accept the process he prefers and work with him to achieve the feeding goal.

### Conditional

Dr. T's wife is a small woman with limited physical abilities related to transfers or physical handling. This impacted his initial return home, and eventually resulted in a fall.

Although not fully explored in the videos, there may be some cultural considerations as well regarding acceptable caregiving roles within their family. This should be further explored in discharge planning, so that both Dr. T and his wife are involved in appropriate family training, consistent with their roles and values.

## Ethical

Although not viewed in the video clips, the therapists must be truthful and honest regarding expected outcomes and prognosis for resolution of incomplete quadriplegia. However, he should not be told that recover is impossible and gains in functional performance should be encouraged.

## Critical Reflection Questions

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

- Repeated skills such as standing or ambulation as they improved, to ensure carry-over of learning and to allow for improved physical performance
- Use occupations such as feeding, which would be important for return to home and community, allowing Dr. T to have a sense of mastery.
- Facilitate Dr. T's involvement in problem-solving.
- Consider volition from MOHO to implement activities that were important to Dr. T.

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

- Expand on transitions between sitting and standing to include transfers.
- Implement family training and continue to include Dr. T's wife and daughter in discharge planning.

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

- Yes, the occupational therapist changed adaptive equipment used for feeding to facilitate improved function.
- The occupational therapist also allowed Dr. T to change some patterns of performance (i.e., whether or not armrest was used to stabilize RUE) to encourage his continued problem-solving to allow client decision-making.

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

- Establishing rapport with client and caregivers (interview clip)
- Guarding techniques for sit to stand
- Use of platform walker
- Adaptive equipment in feeding
- Incomplete quadriplegia