

Interprofessional Education Case Study

“Molly” Case Study:

Molly is an 18-year old student in her first year of university. She was in a car accident that has left her paraplegic. She has been in hospital for a week and has stabilized medically from her original acute injuries. She has a fractured pelvis and a cast on her right arm to stabilize a comminuted fracture that required operative fixation. Her father and sister have come to London from Toronto and are at the hospital most of the time. Plans need to be made for her medical and nursing care, rehabilitation, and eventual re-entry into the community.

Molly underwent several assessments within 24 hours of admission as part of her care, including administration of the [Glasgow Coma Scale](#). The nursing assessment focused initially on her vital signs, on her mobility issues, assessing her bladder and bowel functioning, and her skin integrity as well as her healing of wounds and surgical scars and devices to stabilize her arm fracture. Her fractured pelvis is being managed by conservative means. Thus, positioning and turning are challenges and assessment by physiotherapists will guide in finding the best means to achieve as much comfort as possible especially for her lower body.

The nursing staff report that Molly is refusing to see her boyfriend and appears angry at her friends and family who visit regularly. She also is refusing to eat and often needs extra encouragement to participate in her rehabilitation sessions with the PT. She also refused to discuss transfer to a rehabilitation facility and is uncooperative with the OT in determining the best type of wheelchair to meet her needs.

When the nursing staff try to discuss with Molly the impact of her paraplegia to her normal functioning, she says she is too tired to listen. However, she does allow the nursing staff to attend to her bladder functioning and assessment of her skin, especially in pressure areas.

A member of the health and rehabilitation team suggests the clinical psychologist assesses Molly. The clinical psychologist will help determine her cognitive status and begin working with her to help her deal with her loss of function and to help her prepare for her future. A further issue is her bladder and bowel training that will be needed to assist her in dealing with her change in functioning. The nurse also suggests that a dietitian and speech-language pathologist be added to the team to work with Molly and her family regarding her nutrition, swallowing and management of overall hydration and bowel functioning.

The family also expressed concern about their ability to assist Molly in their present home. OT, PT and SW assistance has been requested to identify modifications that might be required and to explore funding assistance that the family for the modifications.

The family physician was contacted by the orthopaedic specialist associated with Molly's care to work with the health and rehabilitation team and the family, including Molly, to develop a plan for her gradual return to her home and her community.

Because of her age and her head injuries, members of Molly's team also have suggested that OT and speech-language pathology undertake assessments to develop a plan for her re-entry back to school and her home environment.

Interprofessional Perspectives

Surgeon Assessment:

- Complications, contraindications, stability of injury site
- What, if anything, has she been told about her diagnosis/prognosis
- Only MD can communicate this, but OT will want *diagnostic honesty*

Nursing Assessment:

- Based on research with SCI patients key areas would be focused on:
 - Limitations to activities of daily living
 - Ability to manage self-care
 - Supporting what she can still do and working with PT and OT to use assistive devices to support toileting and bathing needs.
 - Bowel functioning
 - Skin integrity – discussing risk factors for skin breakdown and decubitus ulcer formation
 - Impaired physical mobility
 - Positioning and transfer from bed to chair and return
 - Sleep dysfunction
 - Having difficulties to ask for help (assertiveness)
 - Pain
 - Pain management – working with patient and physician to establish an manageable level of pain relief through medication, positioning, and re-focusing techniques with the patient.
 - Coping with the disability
 - Quality of Life Impact – exploration of the impact through understanding of sense of loss of past body image and functioning; help move through stages
 - Sexual dysfunction
 - Dependency on personal help leading to psychosocial problems
 - Problems with changed bladder regulation
- Patient teaching needs – developing a team plan for bladder management; including teaching regarding risk factors for: urinary tract infections, and autonomic dysreflexia.

Physical Therapist Assessment:

- Tone, needs to know the ASIA level to determine whether there is any role in managing tone
- ROM – maintain ankle at 90 degrees for future wheelchair positioning; knee and hip flexibility, esp. hip external rotation for pericare and bowel and bladder care; finger wiggles and shoulder range for casted arm, all joints in uncasted arm.
- Strength – keep it up in uncasted UE joints
- Transfers – start with sit and dangle as tolerated, considering pain in pelvis, if transfer sliding board to start until arm uncasted
- Sitting tolerance – build as tolerated by pain from pelvic fracture
- Bed Mobility – teach roll and sit up, as tolerated by pain in pelvis and position of casted arm (degrees of elbow flexion)

Social Worker Assessment:

- In the acute phase the social worker will assess the following:
 - Individual/Family History:
 - Family constellation and demographics, financial resources, living arrangements, response to Molly's accident and hospitalization, and immediate needs for support
 - Family functioning prior to admission of Molly, and factors which might affect Molly's recovery or post discharge care
 - Previous significant events in the family (recent loss, death, trauma)
 - Other relevant information (history of substance use, violence, mental health concerns)
 - Molly's career goals and significant relationships
 - Clinical Dynamics:
 - Molly's reaction to hospitalization and illness, range of affect and expression, and her immediate support needs
 - Molly and her family's usual communication patterns, response to crisis and loss, and coping mechanisms
 - Level of insight and awareness, understanding of treatment plan, attitude towards recovery
 - Individual/family strengths/limitations, family dynamics, life cycle issues
- Immediate question to explore:
 - What are the immediate needs of Molly and her family (accommodation needs, financial assistance, crisis intervention, coping strategies and emotional support)?
 - What are some of the specific needs for ongoing care?
 - What are some of the community resources, which will be considered to support the ongoing care of Molly and her family?

Spiritual Care Practitioner Assessment:

- Advocate for Molly's spiritual and religious needs
- Provide prayers, meditations, quiet reflection, and other cultural or religious rituals.

Occupational Therapist Assessment:

- OT will be concerned with three main areas, and have some immediate questions:
 - Person – the *level of cord injury*, and whether it is *complete/incomplete*
 - what does/did she do to cope with stress
 - Environment – where does she live, what is its layout
what season and where is this (outdoor environment)
 - Occupation – what is she studying, what are/were her career plans, what are her leisure activities
- Modification to vehicles to transport her.
- Immediate concerns for the OT will be:
 - Positioning - in bed, in a chair
 - Mobility - in bed, in a chair
 - Self care - washing, grooming, eating
- Longer term (rehab) issues will include:
 - Self care - dressing, transfers, managing skin, tone, bowel & bladder, etc.
 - Wheelchair prescription
 - Driving

- home modifications
- resuming her education, and ultimately career planning
- sexuality
- leisure activities

Speech-Language Pathology Assessment:

- Molly shows mild *anterograde amnesia* following the accident and subsequent hospitalization. A recent examination of her speech, language and communication skills revealed a mild mixed *dysarthria*, *moderate word finding difficulties* for both spoken and written tasks, moderate difficulty initiating and participating in conversations, and difficulty maintaining and extending the topics of conversation (i.e., make off-topic comments). She makes *spontaneous tangential comments*.
- Speech, Language, Swallowing and Cognitive-Communication Questions:
 - Speech:
 1. What is mixed dysarthria?
 2. How intelligible is her speech?
 3. Under what conditions does her speech improve? Deteriorate?
 4. Does Molly require speech therapy?
 5. If so, describe the nature of the therapy.
 - Language:
 1. What is the extent of Molly's word-finding difficulties (i.e., anomia) relative to word class (i.e. nouns, verbs, adjectives, etc. and to spoken versus written channels?
 2. To what extent will her anomia affect her future academic performance?
 3. What is the nature of her other language skills, for example, listening and reading comprehension, writing, repetition, and reading aloud?
 4. Does Molly require language therapy?
 5. If so, describe the nature of the therapy.
 - Swallowing:
 1. What is the nature of possible swallowing problems?
 2. Are there concerns for dehydration? Aspiration? Pneumonia?
 3. How is Molly assessed for the presence of swallowing problems?
 4. Does Molly require swallowing therapy?
 5. If so, describe the nature of the swallowing therapy?
 - Cognitive-Communication:
 1. What is the comprehensive profile of Molly's cognitive-communication problems?
 2. What are the implications of her current difficulties relative to re-integration into her university-based curriculum?
 3. Does she require cognitive-communication therapy?
 4. If so, describe the nature of the therapy.
 5. Hearing
 6. Does she need a comprehensive hearing assessment given the nature of her head injury and the profile of her speech, language and cognitive-communication profiles?
- Other SLP Considerations and Questions
 - A clinical psychology referral needs to be made for comprehensive cognitive testing (e.g., memories, attention systems and processes, judgment, reasoning and other executive functions, spatial and nonverbal skills, etc.)

Clinical psychologist assessment

- General verbal and non-verbal intellectual level: What is Molly's neuropsychological status?
- Current emotional status/adjustment – e.g. post-traumatic stress
- Personality:
 - Long-term or stable traits and patterns of adjustment
 - Developmental issues
- Current/Past social functioning

Dietitian

- Risk: Malnutrition
- Prevention/Solution: Assessment --> Individualized Nutrition Care Plan
- Areas of Concern:
 - Adequate energy/nutrient intake
 - Anorexia
 - Dysphagia
 - Hydration Status
 - Bowel and Bladder Function
 - Ability to Self-Feed
 - Risk of Pressure Ulcers
 - Possible Drug-Nutrient Interactions

Components of Nutrition Assessment:

- Height, weight, body mass index
- Nutrition focused physical assessment
- Biochemical assessment
- Energy and fluid requirements
- Calculate protein requirements
- Weight change post-trauma
- Previous diet/weight history
- Determine current nutrient intake
- Presence of nutrient-drug and natural health product(NHP)-drug interactions
- Dysphagia management swallowing abilities

Family physician

- Ongoing support
- Transition from the hospital to her community
- Manage care: months/years
- Clarify information/discrepancies
- Plan for provision of care
- Watch for depression/anniversary reactions

Supplementary Data

Glasgow Coma Scale

She received a total score of 12 out of a possible 15, placing her in the mid-moderate range of alertness and orientation (high scores indicate better cognitive status). She was disoriented in all three spheres on admission (i.e., place, time and person). Her disorientation lasted approximately 72 hours but has been resolved.

Dysarthria

Dysarthria – a group of related disorders in which speech sounds are not spoken clearly; involves one or more of the following neuromotor systems: articulation, linking oral and nasal cavities (i.e. resonance), use and function of the larynx, and the respiratory system.

Mixed dysarthria: a combination of spastic and flaccid dysarthria that is characterized by reduced intelligibility of speech, harsh voice quality, hypernasality, slow speech rate, low pitch and monopitch.

Group Work:

You are attending the team conference to discuss Molly's situation. Please ask the questions that are relevant to planning for Molly's care, using the approach modeled by the panel. If other expertise is required, than is represented by those in the conference, please specify what is needed and your best guess as to who can provide that expertise.

The questions to focus on are:

1. What are Molly's immediate needs so that once she is discharged home her home setting is ready for her?
2. What are the family's immediate needs so that they can be ready to accept her home?
3. What community services are likely to be needed to support Molly's continuing care needs once she is back home?
4. What health care/monitoring will be needed by Molly once she comes home and who is the appropriate health professional to provide this care?
5. What information have you gained about the knowledge and skills of health professionals that you did not know previously?
6. What knowledge and skills are known by more than one health professional?
7. What knowledge did you gain from this case that will be valuable to you as you continue on in your program?