**Title and Focus of Activity:** Parkinson’s Disease (PD): Clinical Decision Making in Action

*Patient/client management model*

**Contributor(s):** Suzana Simoes PT, DPT, NCS [simoes@nova.edu](mailto:simoes@nova.edu); Kim B. Smith PT, DPT [ksmith@nova.edu](mailto:ksmith@nova.edu); Jennifer Canbek, PT, PhD, NCS [canbek@nova.edu](mailto:canbek@nova.edu)

Nova Southeastern University, Ft. Lauderdale

**Course Information:** Neuromuscular Systems II; 2 credits over 12 weeks; first semester of third year.

**Learning Activity Description**

Context: Volunteer patients with PD are recruited from the community to come into the classroom for this experience. The activity aims to bridge the gap between theory taught in the classroom and practical application of a decision making model in a clinical context. The placement of this activity is very relevant to the curriculum as a whole, as the students go out on their full time internships directly after this course.

Purpose: Use the ICF model as a clinical decision making model to guide the development of a plan of care for a case with Parkinson Disease.

FACULTY PREPARATION PRIOR TO ACTIVITY

* Volunteers with PD are recruited from the community and screened by course faculty to participate in 2-2hour lab sessions. Faculty screen participants by completing a PD Profile.
* Assigned readings are posted in Blackboard for students to read
* Students are assigned to groups of 6-8 students to work with an assigned patient volunteer during the lab sessions.

CLASS 1: ASSESSMENT DAY

During Lab Session:

* Each group of students performs an examination on a volunteer with PD.
* Obtain informed consent (treatment and pictures/video)
* Perform a brief history and interview to verify the given case history.
* Perform PD Profile (Schenkman, 2011)
* Select and perform between 3-5 additional outcome measures and any additional tests and measures to screen and examine the case volunteer.
* Faculty circulates and provides feedback on selection, implementation, and interpretation of tests and measures.
* Faculty outlines expectations for completion of Class 1 Lab Assignment.

After Class:

Each group completes the following Class 1 Lab Assignment and analyzes their PD case considering levels of participation, activity limitations, body systems (impairments caused by PD, and also those that are a sequelae to PD or other conditions) and pathology (PD and comorbid conditions). Personal and environmental factors from the ICF Model should also be considered.

* What is the rationale for each of the outcome measures selected?
* Develop a comprehensive problem list including anticipatory problems pertinent to PT and identify the relevant classification: impairment, activity limitation, participation.
  + What is your hypothesis regarding the origin of each identified **functional problem**?
* Develop a PT specific problem list with the problems that **you intend to treat**.
  + What type of strategy: prevention, compensation, restoration or a combination will be used to address each PT problem?
* Synthesize in one paragraph your evaluation including prognosis and reason for skilled services.
  + Which stage of the Hoehn & Yahr scale is the case?
* Develop a Plan of Care (POC):
  + Goals (3-5) addressing problem list and personal goals. Goals should be meaningful and appropriate for the case.
  + Frequency and duration of PT
  + Select appropriate treatment interventions
  + Recommend equipment needed and referrals if appropriate

CLASS 2: TREATMENT DAY

Student Preparation for Class:

* Students select interventions for treatment session for PD case assessed during Class 1.
* Identify potential home program exercises/activities.

During Lab Session:

* Students conduct a treatment session implementing interventions and home program instruction.
* Students videotape the treatment session.
* Faculty provides feedback and guidance on selection, implementation and ongoing assessment of interventions.
* Faculty outlines expectations for completion of Class 2 Lab Assignment and video.
  + Video instructions: Prepare a 3-5 min video of the treatment session to be posted on YouTube. Upload the link with assignment submission in Blackboard.

After Class:

Each group:

* Completes the following Class 2 Lab Assignment.
  + Based on the patient’s response to treatment, would you modify your initial POC? Justify your answer.
  + Document your treatment session using SOAP format.
  + What recommendations will you provide to your patient based on your knowledge of the disease progression and anticipatory problems?
* Each group creates a 3-5 minute video clip of the treatment session highlighting samples of the interventions.

**ASSIGNMENT SUBMISSION**

Each group submits the Class 1 and Class 2 Lab Assignments and the video link to Blackboard

internships directly after this course.

Time for student to complete the activity:

1. preparation for activity outside of/before class: 1 hour/class for classes to complete readings and prepare assignments
2. class time completion of the activity: 2 hours/class for 2 classes (4 hours total)

Readings/other preparatory materials:

1. Schenkman M & McCulloch K (ed.).Topics in Physical Therapy: Neurology. Current Concepts in Rehabilitation of Individuals with Parkinson Disease. American Physical Therapy Association; 2002:25-27
2. Schenkman M, McFann K, Barón AE. PROFILE PD: Profile of function and impairment level experience with Parkinson’s disease—clinimetric properties of a rating scale for physical therapist practice. *J Neurol Phys Ther.* 2010;34:182-192.

Learning Objectives:

1. Articulate rationale for the selection of outcome measures and demonstrate effective implementation for the examination of a given PD case.
2. Construct relevant physical therapy problem list with contextual factors using ICF model as modified for a given PD case.
3. Generate hypotheses for the origin of each activity (functional) limitation identified using ICF model as modified for a given PD case.
4. Formulate a patient-centered physical therapy plan of care for a given PD case.
5. Develop and implement appropriate treatment interventions and distinguish the treatment strategy employed: prevention, remediation, compensation or a combination to effectively treat the identified PT problems for a given PD case.
6. Evaluate the patient’s response to treatment and provide supportive rationale for continuing or modifying the established plan of care for a given PD case.
7. Value patient’s personal goals and preferences in the creation of a treatment session evidenced during delivery and a highlight video of a given PD case.

Methods of evaluation of student learning**:**

Students are provided real-time feedback during the lab activity. Upon completion of the lab the assignment is submitted to Blackboard for grading. A rubric is used to assess students (see attached rubrics: Appendix B and C). Categories of the rubric include:

* Outcome Measures
* ICF model
* Problem list
* Assessment/clinical impression
* Goals
* Plan of Care
* Treatment
* Treatment: SOAP note documentation

**Assignment Rubric (per group)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PD Lab** | **Criteria** | **Fully Met (3)** | **Mostly Met (2.5)** | **Partially Met (2)** | **Not Met (1)** |
| **Outcome Measures** | 1. Selection of tests/measures are appropriate and relevant to patient’s case, goals, concerns, stage of disease and problems  2. Describe functional problems and hypothesis for possible causes.  3.Rationale supports choice of outcome measures to address functional problems  4. Accurately scores and interprets results of testing  Comments | All criteria are present | Occasional lapse in criteria-missing 1 criteria | Missing 2-3 criteria | Missing more than 3 criteria |
| **ICF Model applied to PD** | 1. All components are filled with pertinent information  2. Comprehensive list of all impairments, functional activity limitations are provided (no relevant item is missing)  3. Findings are correctly classified under the components  Comments: | All criteria are present | 1-2 items are missing or are placed under the wrong category, or not all boxes are filled | Meets at least half of criteria: 3 items are placed in the wrong category, are not filled, or are missing | Missing more than 3 criteria |
| **Problem List** | 1.Lists all problems including anticipated problems pertinent to PT with appropriate classification (impairment, activity limitation, participation)  2.Develops an appropriate PT treatment Problem list  3. Correctly determines treatment strategy to address the PT Treatment problems: compensatory, restoration, prevention  Comments: | All criteria are present | Occasional lapse in criteria-missing 1 criteria | Missing 2-3 criteria | Missing more than 3 criteria |
| **Assessment/**  **Clinical Impression** | 1.Evaluation: integration and synthesis of findings  2. Describes reason for skilled care  3. Clearly defines prognosis  4. Correctly identifies H&Y stage  Comments: | All criteria are present | Occasional lapse in criteria-missing 1 criteria | Missing 2-3 criteria | Missing more than 3 criteria |
| **Goals** | Develops 3-5 Goals  1. Goals address problem list/patient goals  2. Goals are functional and measurable  3. Goals are meaningful and appropriate for case  4. Reasonable time frame for goals to be met  Comments: | Minimal of 3 goals are developed. All 4 criteria are found in the established goals | Occasional lapse in criteria-missing 1 criteria | Missing 2-3 criteria | Missing more than 3 criteria |
| **Plan of Care** | 1. Frequency & duration of PT specified  2. Selection of appropriate treatment interventions  3.Recommends equipment and referrals/consultation  Comments: | Plan of care includes all the listed criteria | Occasional lapse in criteria-missing 1 criteria | Missing 2-3 criteria | Missing more than 3 criteria |
| **Treatment:** | 1.Identifies problems/ difficulties with established POC 2. Provide rationale for identified difficulties  3. Provides a suggestion for alternative treatment  Comments: | Treatment includes all the described criteria | Occasional lapse in criteria-missing 1 criteria | Missing 2-3 criteria | Missing more than 3 criteria |
| **Treatment: SOAP Note Documentation** | 1. Subjective: relevant comments  2.Objective: includes progression within treatment and client/caregiver education regarding progression of the disease and anticipatory problems; Home program instruction.  3. Assessment: Clinical impression of client response to treatment.  4. Plan: Recommendations  Comments: | SOAP note includes all the described criteria | Occasional lapse in criteria-missing 1 criteria | Missing 2-3 criteria | Missing more than 3 criteria |

**Video Rubric (Bonus)**

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| --- | --- | --- |
|  | **Criteria** | **MET:** |
| **Appropriate exercise prescription** | * Exercises meet the patient’s needs (impairments, functional limitations and goals) * Intensity is adequate * Exercises are appropriately challenging * There is a clear progression of activities |  |
| **Meaningful to patient’s experiences** | * Exercises reflects patients preferences, hobbies, life style |  |
| **Treatment creativity** | * Treatment includes: * A variety of interventions * Different developmental positions * Fun |  |
| **Video creativity** | * Opening * Captions * Music * Includes a significant sample of activities provided * Effects |  |
| **Grading:**  **0.5 bonus point for each Group** | **All listed criteria are met** |  |
| **BEST VIDEO / TREATMENT**  **1.0 bonus point for Group** | **Subjective discretion of the instructor** |  |