This short paper has been written to provide strategies that may help you to facilitate and assess the clinical reasoning skills of your students. These strategies have been used by clinical educators of physicians, nurses, and physical therapists to enhance clinical learning experiences. We will present several strategies within three main categories: (1) First Day/Orientation, (2) During the Clinical Rotation, and (3) Assessment (Feedback/Evaluation).

First Day/ Orientation

These are good things to employ on the first day of any clinical rotation. Schedule a set time to orient the student and discuss the following issues with them:

1. Discuss student’s background, short term goals, and long term goals.
2. Discuss with student how they learn best.
3. Ask what worked/didn’t work during previous clinical rotations.
4. Discuss what the “end product” should look like. Specifically verbalize your expectations for where the student should be at midterm and final and develop key objectives (in writing) to guide weekly expectations to reach the midterm and final goals. Tell the student how you will evaluate their performance.
5. Specifically state the student’s responsibilities.
6. Specifically state your (the CI’s) responsibilities.
7. Review learning resources and opportunities.
8. Together develop guided learning opportunities for 5-10 key patient diagnoses in your setting. Develop ways a student can learn about these diagnoses and how to manage patients with these diagnoses by participating in “real” patient cases. If the opportunity does not arise to treat “real” patients, determine how you will help the student learn about the patients whose diagnoses they do not actually get to treat (e.g.: 15-20 discussion, assign readings/articles, etc.)

During the Clinical Rotation

Establishing a comfortable, mentoring, learning environment greatly improves clinical education experiences and we have provided eight (8) strategies to help promote clinical reasoning.

Strategy 1: The Silent Treatment

Ask student questions and be silent to hear their response. Many times we feel that we need to spend the limited time that we have with the student by teaching them. To help the student develop their clinical reasoning skills, we need to ask questions and continue to ask questions as they refine their hypotheses and treatment plans.
Strategy 2: Generating Differential Diagnoses
You can use the following questions to help the student develop their differential diagnosis skills:
   a. What do you think the diagnosis is?
   b. What objective data do you have to support/refute the idea?
   c. What do you want to do about it?
   d. CI can then say - suppose the patient also presented with ‘X’ (or add a ‘wrinkle’ to the case)...how would this change your diagnosis and treatment plan?
   e. What do you feel is the most interesting or challenging about this patient?

From the discussion above, identify concepts/information for the student to look up or learn to address any learning issues they may have. Give specific assignments and plan a specific time to review their findings.

Strategy 3: Focused Demonstration
Ask the student to pay particular attention the specific way you do something with a patient (e.g.: a portion of the exam, an exercise, a discussion with a family member). Debrief following the procedure and have student critique your performance.

Strategy 4: Focused Observation
CI tells student that they will observe and provide follow up comments on a specific portion of a patient care activity (see examples in Strategy #3 above).

Strategy 5: Compare and Contrast
Engage students in discussing how Patient A is similar to or different from Patient B.

Strategy 6: Teachable Moments
Look for opportunities to show students examples of abnormal or unique examination findings or patient management issues.

Strategy 7: Pitfalls to Avoid (good for students in final rotations)
Provide examples of things that a practitioner should not do. Highlight a problem that can occur. Consider sharing your personal experience (e.g.: “a mistake I’ve made is...”).

Strategy 8: Coaching Model (good for exceptional students OR students in final rotations)
Ask student for feedback on an area where they can improve. Direct students to also consider areas where they already present with strengths and ask them how they can get even better. It is important to ask students what they can do to advance themselves in the given area and what you as the CI can do to help them advance in a given area.
Assessment (Feedback/Evaluation)

1. Midterm and Final Evaluations using the CPI. Good to have student perform a self-assessment and compare with Cl’s evaluation. Always consider all 5 performance criteria when making your mark on the visual analog scale (VAS).
   a. Quality of Care
   b. Supervision/Guidance Required
   c. Consistency of Performance
   d. Complexity of Tasks/Environment
   e. Efficiency of Performance

2. Coaching Model (listed above)

3. PRIME – This is a method to evaluate a student’s autonomy and progression in terms of being able to practice at entry level. Students should progress through each of the following areas as they advance toward entry level practice
   a. Professionalism – professionalism in all mannerisms and interactions
   b. Reporter – able to report correct data to CI
   c. Interpreter – able to interpret the data collected in discussions with CI
   d. Manager – presents ways to manage the case based on data and interpretation of the data
   e. Educator – able to educate patient, CI, self, and others though the course of managing the patient’s case

Hopefully this information will provide you with several ideas of new ways to approach clinical instruction and ways to help facilitate and assess the clinical reasoning skills of physical therapy students. If you are interested in gathering more information, we would encourage you to refer the educational materials listed below. We also welcome you to contact us with questions.

Thank you for supporting clinical education in your practice,

Regis Clinical Education Team

Selected References