PTA students during the spring semester each year are required to research and lead the class in an “alternative” exercise program. This year those programs included Yoga, Pilates, Zumba, Plyometrics, Wii-fit, “Slow-motion” exercise, Functional Exercise/Cross-Fit, Tai-Chi and a transitional walk to run program. The purpose of this assignment (aside from just being fun) is (1) so that students have at least a basic level of familiarity with programs that patients may be participating in or asking about and (2) to have students brainstorm about ways to use some of the principles of these programs in a modified way for meeting particular patient goals within the PT POC. I encourage you to challenge your spring PTA student to hypothesize appropriate ways to incorporate some of these techniques… for example:

- A yoga position or modified yoga position for goal of increasing hip rotation ROM?
- A tai-chi sequence for working on improved weight shift?
- A wii game for a goal of improved balance or cardiovascular endurance?
- A “slow-motion” principle applied to an existing resistance exercise patient program?
- A pilates or modified pilates exercise for addressing goal of improved core strength?
- A zumba sequence for addressing LE coordination?

Students should be able to brainstorm about what alternative exercises might be appropriate and what modifications and precautions would be necessary for a given patient. It might also help spark new intervention ideas for you and your co-workers!!

**Frequently Asked Questions:**

“When documenting SPTA performance in the PTA MACS, when is it appropriate to use the “NI-needs improvement” notation vs the “NE-needs experience” notation. Especially on a fall/first clinical rotation, wouldn’t most areas of weakness be expected to just “need experience”?

The use of NE vs NI is a common source of confusion for CI’s. While CI’s may often feel that a skill will naturally improve with “more experience”, the “NE” notation in the PTA MACS is definitely over utilized when the “NI” notation would be more appropriate. Clinical instructors should consider the following when selecting NE/NI:

- **The NE is appropriate when the student had minimal opportunity during the clinical experience to practice the skill but not when the skill was performed/observed frequently.** For example, a student in OP who had only 1 patient for transfer training who was not yet proficient may = NE. A student in acute care who did transfers 5+ times per day and is still not proficient should = NI.

- **For affective/professional skills the use of NE is rarely if ever appropriate.** If a student is not exhibiting “entry-level” skill with communication, behavior, responsibility, etc that is something that should be reflected with an NI and not an NE.

- **Students, even on a first/fall rotation are expected to work toward becoming entry-level with the skills utilized in that setting on a regular basis.** If by the end of the rotation the student is not proficient with a commonly used skill, the NI is appropriate.

- **An NI is actually more helpful to the student and the ACCE than the NE.** An NI should include documentation/comment as to the exact nature of the skill deficit and therefore guides the student and the program toward the interventions needed to correct the weakness. An NE on the other hand is fairly vague and is less useful in identifying the needed improvements.

- **When identifying deficits in student skill, it is important to give that feedback as soon as possible.** At a minimum this should consist of a formal mid-rotation and final MACS assessment, but ideally the student is receiving feedback (formal or informal) on a more regular basis so that he/she knows what areas need improvement and has the opportunity to work on those areas.

- **Be sure and involve the school when areas of weakness are identified.** The ACCE (at the midrotation visit or at any time before/after) can give you feedback on whether the skill was perceived to be weak in the class/lab, whether the NE or NI is appropriate and help suggest teaching strategies to facilitate improvement in the skill.
For a student to be successful during clinical experiences and as a practicing PTA they must develop and achieve skill in all three “domains of learning”. They must (1) have the appropriate/required “textbook” knowledge—cognitive level (2) be able to physically execute assessment and intervention skills—psychomotor level and (3) demonstrate the attitude, communication skill, and behaviors expected of professionals and patient care-givers—affective level.

Being able to accurately identify (diagnose) where student skill performance deficits originate and then designing appropriate teaching interventions (treatments) to help facilitate improvement are characteristics of an expert clinical instructor. Consider the following examples of diagnosing and treating common student skill deficits.

Cognitive Domain Examples:

Problem: Student selecting inappropriate exercises for shoulder impingement syndrome patient.

Diagnosis: Student weak in knowledge of the pathology of impingement and of rotator cuff exercises in general

Treatment: Student to research (homework) and bring new ideas (along with rationale) for exercises tomorrow.

Problem: Student not proficient with standing pre-gait activities with high tone hemiplegic patient.

Diagnosis: Student weak in knowledge of sequencing of pre-gait activities and basic NDT principles (closed chain before open chain, controlled mobility before skill, etc.)

Treatment: Student review of notes on these subjects + brief “mini lecture” review from CI on the topic followed by student practice and demonstration with the skill. Prompting of the student for rationale for selection and sequencing of pre-gait activities for other patients to reinforce learning.

Psychomotor Domain Examples:

Problem: Student not proficient with monitoring patient vital signs during tilt table intervention.

Diagnosis: Student can accurately describe how to use BP cuff and what to “listen for” but clumsy with handling of devices and inconsistent with determining accurate BP

Treatment: provide multiple opportunities for student to practice skill; demonstrate components of skill for student; have student practice skill at home as well

Problem: Student not proficient with gait training mod assist CVA patient.

Diagnosis: Student has difficulty physically coordinating how to provide trunk support while also assisting in LE advancement and tactile cuing for knee control.

Treatment: Find opportunities to both demonstrate handling techniques during gait for student and for student to practice. Think about part-task to whole task by having student demonstrate some of the handling techniques during standing or pre-gait activities progressing to student using those techniques during gait.

Affective Domain Examples:

Problem: Student not proficient with taking knee goniometric measurements on post op TKR patient

Diagnosis: Student flustered by patient’s vocalization of pain and reluctance to let knee be moved.

Treatment: Give specific, objective feedback on the behavior/skill needing improvement—“I noticed that you stopped making eye contact with the patient and that your verbal instructions became very soft” is better feedback than “you seemed flustered and shy”. Discuss/reinforce (1) why that component of the skill is an issue (consequences) and (2) how you handle those situations. Provide opportunities for student to see you role-modeling working with “difficult” patient scenarios and for student to practice in those circumstances.

Problem: Student not proficient with modifying exercises/interventions when appropriate.

Diagnosis: While student seems to have knowledge of what exercise modifications are appropriate and how to implement those, he is hesitant to make suggestions or changes. He needs to “jump in there” more/have more confidence with identifying when changes are needed and discussing those changes with CI.

Treatment: More explicitly outline your expectations for how student should note and address needed or suggested changes in interventions. Give examples to student for what does/does not need CI approval. Discuss why the skill/behavior is important. Provide multiple opportunities for student to practice the skill (for example: today I want you to suggest at least 3 changes in patient interventions/exercises and bring those to my attention).

Other suggestions and techniques:

Have brief conversations with students prior to a treatment session and post treatment session. In the “pre” treatment briefing you can glean information on the student’s “cognitive” domain by asking what the patient knows about the diagnosis, items found in the PT eval or POC, interventions the student would expect to use, anticipated decision making needs. In the post treatment debriefing you can ask the student to self-assess the effectiveness of the session and their own identified areas of weakness.

Give regular feedback on skills that are weak, but be cautious about getting “tunnel vision” or harping on only that weak behavior/skill. Students learn best when critique is paired/combined with positive reinforcement.

Encourage reflection and self-assessment. For skills that students are not yet competent in performing, ask the student to reflect on whether they (1) felt lacking in knowledge on the skill (2) felt challenged in the physical performance of the skill or (3) felt uncomfortable, anxious, etc with aspects of the skill. Comparing the student’s perception with your observations is a great way to help “diagnose” the problem and plan interventions to help the student achieve success!
**Spring Crossword Puzzle**

Hey Clinical Instructors!! Try this crossword just for fun but also to get an idea of what didactic content BPCC PTA students are covering during the spring semester of the PTA Program. Challenge your PT & PTA co-workers to brush the brain cobwebs off some of this information to help you finish the puzzle! Then feel free to quiz your spring PTA students about these subjects too!!

| Across | 1. in using the "rule of 9's" to estimate the size of a burn, the patient's palm is roughly equivalent to ____% TBSA | 8. tract in the spinal cord that carries voluntary muscle activity signals | 9. group of exercises beneficial for the patient with dysmetria and limb ataxia | 11. location in the spinal cord of the cell bodies of lower motor neurons | 14. testing the strength of the wrist extensors and the sensation on the radial side of the hand would assess the integrity of the _____ spinal nerve | 16. most severe form of spina bifida; the cord and its protective covering protrude from an opening in the spine | 18. inflammation of the brain that can be viral or bacterial | 20. hemisphere and lobe of the brain most commonly affected in the patient exhibiting "neglect syndrome" | 22. balance test that assesses 9 balance indicators in sitting, rising from a chair or standing with a total possible balance score of 16 points | 23. transitional movements and transfers are easier for the C7 tetraplegic than the C6 tetraplegic due to preserved innervation of the | 24. in addition to expense, another disadvantage of a myoelectric prosthesis | 25. a stiff SACH foot heel cushion is likely to create knee ________ during early stance |
| Down | 1. rewarding a patient for compliance with a home exercise program (positive reinforcement) is based on BF Skinner's theory of ________ conditioning | 2. moving the UE's through the same PNF pattern in the same direction to facilitate trunk flexion and extension | 3. muscle group active in gait when moving from heel strike to foot flat | 4. hypertonicity, clonus and hyperreflexia are signs of damage to a(n) ________ motor neuron | 5. number of days of SNF care that Medicare covers per episode of illness | 6. postural deviation frequently associated with tight hamstrings and weak hip flexors | 7. based on the convex-concave rule, the base of the proximal phalanx glides ________ during MCP flexion | 8. more common name for talipes equinovarus | 10. number of feet a patient must be able to ambulate independently in order to score a "7" on the FIM scale for "Locomotion: Walk" category | 12. the inability to identify an object based on touch alone | 13. part of the ECG wave that represents ventricular depolarization | 15. A lesion to this cranial nerve would cause weakness of the same side muscles of mastication and facial hemianesthesia | 17. when research study uses subjects who are easily accessible (patients in your PT dept, students in your class, etc.) is termed ________ sampling | 19. TLSO designed to limit trunk flexion | 21. stereotyped movement (the absence of isolated movement), either gross flexor or gross extensor that occurs when movement is elicited |
BPCC PTA students, faculty, and alumni participated in a variety of community service and professional development activities this year including:

Right: BPCC PTA students, faculty and alumni participated in “Hustle for your Health” - the Shreveport District LPTA PT Month 5K—October 13, 2012

Left: BPCC PTA students and faculty attended the LPTA Fall Conference in Baton Rouge, LA—Sept 28-30, 2012

Way to Go!!

The BPCC PTA Program is very fortunate to have a large community of skilled and dedicated clinical instructors who not only model excellent technical skills but who also devote time to and energy to teaching. PTA students are asked to give feedback to the question “What did your CI do well to facilitate learning?” at the end of each rotation — See just some of the great things our CI’s are out there doing!!

“He brought me into evals and had me do some of the assessments (leg-length, goni, MMT, etc) and critically think out loud with him about the findings. He asked me to come up with and modify exercises based on the POC, write all my notes, and problem solve frequently.”

Re: Jeremy Sutton, PT
Minden Med

“My CI was very patient and helpful. She gave me independence when possible, had me practice my documentation every day, & let me come up with modifications to exercise/interventions within POC if I saw fit. She was calm, non-threatening, empathetic and had a good understanding of my experience and knowledge base because she had been through PTA program at BPCC.”

Re: Diane Pilcher, PTA
Guest Care Rehab

“My CI always gave me an opportunity to formulate and present to him what I thought a patient’s diagnosis/issue was before he presented his findings. This was a great learning experience for me to understand the reason for and how to implement a plan of care.”

Re: Jeremy Dye, PT
WK South

“At the beginning of the rotation my CI asked me what things (concepts, skills, etc.) I felt were a weaker area for me and throughout the rotation he looked for opportunities for me to practice those. He also would "quiz" me on basic information about the things I would see/do in the clinic (anatomy, contraindications, rationale, etc.) which really helped pull together what I had learned in the classroom with what I was seeing/doing in the clinic.

Re: James Rhodes, PTA
Tri-State Physical Therapy

“He really allowed me to critically think. One of the things he did that I learned a lot from was that he treated my rotation like a real work experience by delegating patients to me and having 6th visit PT/PTA conferences. He also gave me room to be creative and choose/modify exercises and interventions my patients.”

Re: Doran McQueary, PT
WK Bossier