

Spring
2015



BOSSIER PARISH COMMUNITY COLLEGE PTA PROGRAM

Clinical Newsletter

"Quiz Me" about Strength: Ideas for challenging PTA student critical thinking

This article will be the first in a series of prompts useful in quizzing students so that they might better apply "textbook" knowledge to clinical experiences.

Physical Strength. By definition it is the ability of muscles to move objects. It is influenced by genetics, anatomy, conditioning, pathology, psychology and environment. In physical therapy we commonly default to considering MMT as the assessment of strength and resistance training as the intervention for strengthening. Beyond that, though, prompt your student to think about and discuss the following items as they relate to the **ASSESSMENT** of strength and the **INTERVENTIONS** used for increasing strength for given patients in your caseload.



Assessments of Strength... are there applications we could use for this patient based on:

- manual muscle test
- use of a strength testing device (dynamometer, isokinetic testing, etc)
- quantitative or qualitative observation of motion (amt of assist required, amt of time pt can hold position, % of time pt successful/ unsuccessful with motion)
- muscle girth measurement
- wellness measure of strength (reps/lbs)
- special test (drop arm, trendelenburg, etc)
- improvement in safety, speed or independence with gait, transfer, ADL, etc.. (TUG, Tinetti, etc..)
- patient subjective report of improved function (SIP, etc.)
- sport or activity specific performance measure

Interventions for Strengthening... how do the following concepts apply to patients in our caseload who need strengthening?

- targeting strength vs endurance vs power vs coordination
- isotonic vs isometric options
- simple to complex (part task to whole task)
- strengthening in shortened position, midposition, lengthened position
- open and closed chain options
- straight plane vs multiplanar (multi-angle) applications
- avoiding active insufficiency of targeted muscle or using active insufficiency to target another prime mover
- use of PNF elements, patterns or

techniques

- adding or removing segments of the extremity
- "chain"
- speed of contraction (based on targeted fiber type, functional need, or PT goal)
- level of motor control (stability? Skill?)
- change sensory input
- use of e-stim as adjunct to exercise
- monitoring of movement quality (substitutions, biomechanics, etc..)
- addressing posture or ADL contributing factors to muscle weakness
- "alternative" exercise options (yoga, pilates, etc.)

****Additional ideas related to "Quiz Me: Strength"** are available on PTA website at bpcc.edu/pta (click on "Information for Clinical Instructors", then "Quiz Me")

FAQ: Can a PTA be a clinical instructor for a PTA student and if so, should the supervising PT still be involved?

In 2011, the LA PT Board adopted administrative rule changes that allow a PTA with at least 1 year of experience to serve as a clinical instructor without continuous on-site supervision by a PT (supervising PT must still be available by phone). Experienced PTAs serve as a valuable resource for SPTA clinical education and can make excellent clinical instructors. Specifically PTA students benefit from having a PTA as a CI because (1) they are able to role model the work practices of a PTA and (2) they are typically very familiar with the educational requirements/curriculum of PTA programs.

In situations, however, in which a PTA is serving as a primary clinical instructor it is still strongly encouraged that a supervising PT (1) is consulted and approves of student placement with the PTA as the clinical instructor and (2) is willing to participate in the clinical education of the student.

Some recommendations for ways in which the supervising PT can/should participate when not acting as the primary clinical instructor include:

- providing opportunities for the SPTA to observe and/or participate in the PT's initial patient assessment process

-prompting the SPTA to communicate regularly with the supervising PT regarding changes in pt status, pt progress toward goals, requests for modifications in POC, etc..

-allowing for feedback (formal in PTA MACS and verbal/informal) from PT on observed student performance

Based on data collected each year, BPCC PTA students normally are assigned a PT as a primary clinical instructor 50% of the time and a PTA as a clinical instructor the other 50% of the time (with, in the vast majority of cases, a supervising PT on-site). We are pleased with this diversity and encourage our PT/PTA teams of clinical educators to continue providing opportunities for students to learn from what each member of the team has to offer!

Have questions or feedback about this FAQ? Have another question regarding clinical education you would like to see addressed? Please let us know! Post your question on the BPCC Allied Health Clinical Instructors Facebook page or send to kcox@bpcc.edu.

Show me the Evidence! Teaching and modeling evidence-based practice in clinical education

In this environment of health care and Medicare reform evidence-based practice (EBP) which has been defined as "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients" is becoming increasingly vital to the sustainability and growth of our profession. And, as such, should be as important as other basic skills in the clinical education of PT and PTA students.

High quality patient care involves decision making based on the goals/wishes of the patient, the experience/skill set of the clinician and a review of the best research evidence available.

Clinical instructors should consider providing opportunities for students to use each of the following steps in practicing in an evidence based manner.



(1)**Formulate a question.** Prompt students to think about and generate questions based on patients in your caseload. Are CPMs beneficial in the acute phase post TKR? Which screening tools are best for determining a patient's fall risk? Is e-stim effective in promoting wound healing? Encourage students to critically think about the rationale for use of particular assessment or intervention tools and to have a desire to select based on evidence and not just on an anecdotal, "that's just what I've always seen done" construct.

(2)**Search the literature.** This is something that in the past was a major obstacle, but that in recent years has become MUCH easier. In addition to PubMed (National Library of Medicine Database), APTA members have a couple of excellent tools for literature review searches. The most extensive and newest of these is the Article Search feature on PT Now (ptnow.org) which allows APTA members access journals and other resources relevant to clinical practice, including full-text access to research and articles from more than 4,500



clinical and academic publications. Members can search by keyword or by area of clinical specialty. Still having difficulty? PTNow has a librarian on staff to assist you. Just email articlesearch@apta.org for help! Giving students "homework assignments" to search the literature for evidence related to a particular clinical question is an excellent activity. Students can bring findings back to the clinic and present in a staff in-service setting so that all benefit!

(3)**Critically appraise the research findings.** This is the opportunity for the student to appreciate that not all research is to be interpreted on face value. Ask the student to describe, for a given research study, what level of evidence is provided? Systematic reviews and randomized control studies provide the strongest evidence while evidence from case reports is much weaker. What does the student think about the validity of the study's findings? Prompt the SPTA to discuss whether the study had good internal validity (outcomes were a result of interventions used) and external validity (results can be generalized to larger population).

(4)**Implement.** Discuss with the student that research findings must be balanced with the experience and skill set of the clinician. For example, research may support the use of a particular manual therapy technique, but if the clinician is inexperienced or uncomfortable with the skill then it may not be the best choice. Additionally, the patient's goals and desired must be a consideration. Patients uncomfortable with e-stim may prefer to avoid the use of that modality, even if evidence supports its use. Once these variables have all been weighed the student can work with the CI to select appropriate interventions and begin assessing

the effects of those interventions

(5)**Evaluate the results.** The student should be working with the CI to collect data that will accurately track patient progress. PT Now (ptnow.org) is a resource not only for literature review, but also for accessing tests and measures. Members can search for tools using keywords or can search by diagnosis or musculoskeletal region. In selecting appropriate assessment tools/instruments the student should be prompted to consider the instrument's psychometrics (also available at PT Now). Things such as:

- The inter and intratester reliability of the tool
- The validity of the instrument: Are results comparable to the "gold standard" (concurrent validity)?; Does the instrument measure all of the important aspects of the impairment (content validity)?; Do results correlate with likely future events (predictive validity)?
- How much change in patient performance using the instrument must be present for the change to be important (minimal detectable change & minimal clinically important difference)?

·How sensitive and specific is the instrument? Instruments with high sensitivity are good for ruling out conditions; Instruments with high specificity are useful for ruling a condition in. Ask your student to explain and apply



the "SPpIN" and "SNnOUT" acronyms.

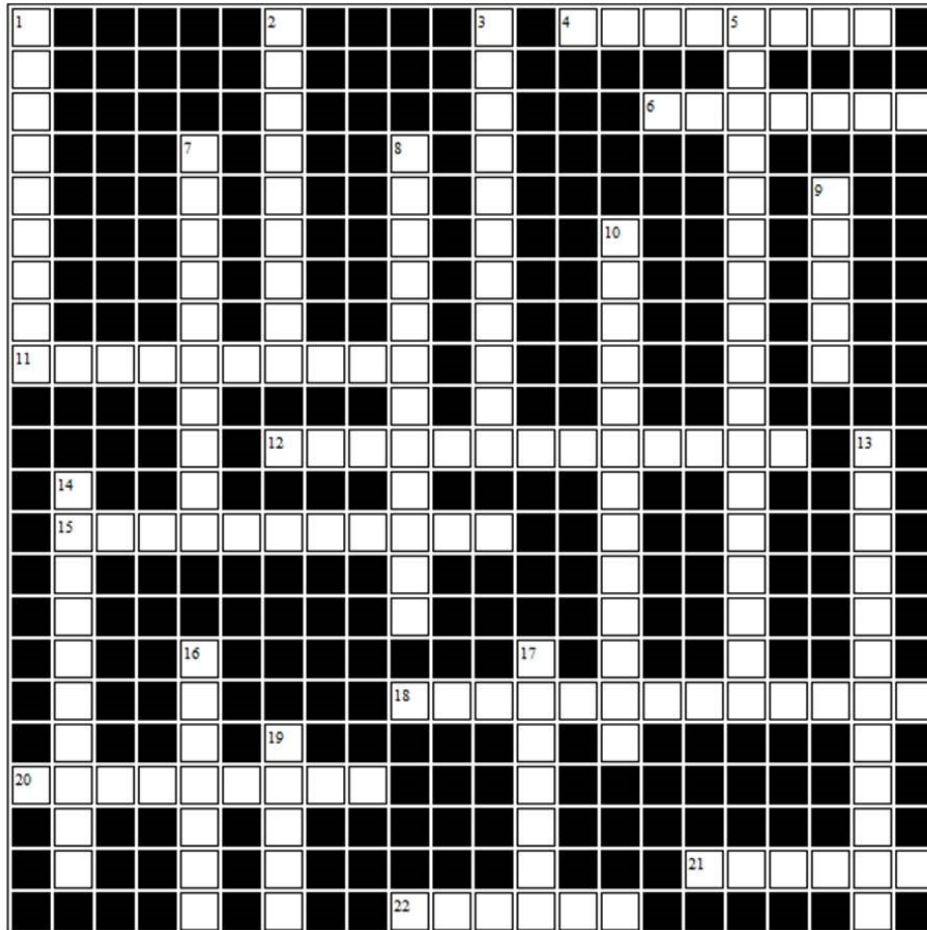
Clinical instructors may consider using pieces of this 5-step EBP on an informal, daily basis or through a more formal student assignment to prepare a clinical in-service or case study presentation. Regardless of the format, helping the student to practice clinical decision making based on EBP principles helps the student, helps the patient, helps the CI/facility, and helps the profession of physical therapy.

Mary McMillan lecturer Rebecca Craik may have expressed it best when she said "**Maybe EBP is really about never falling prey to complacency, about never being satisfied. Its about feeding your motivation, your passion for the profession.**"

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

4. glenohumeral movement in an oblique plane between frontal and sagittal
6. this lesion is an avulsion of the capsule and anterior labrum from the glenoid rim
11. elevated blood levels of _____ are commonly seen in patients with renal disease
12. muscle with an origin on the ischial tuberosity and an insertion on the fibular head
15. term describing normal loss of hearing due to aging
18. this modality useful when POC calls for desensitization therapies for hand or foot
20. during this first stage of motor learning, skills are explained and demonstrated to the patient and practiced in a very controlled environment
21. tarsal bone palpated just proximal to the 5th metatarsal styloid process
22. diminished grip strength due to inability to extend the wrist would be a result of damage to this peripheral nerve

Down

1. application of topical agents that contain collagenase are used for this type of debridement
2. landmark for alignment of the stationary arm during goni measurement of wrist flexion
3. part of the limbic system that converts short term to long term memory
5. primitive reflex for which the stimulus is head position and the response is full body extension when in prone and full body flexion when in supine
7. type of exercise commonly indicated in the acute phase but contraindicated for acute rotator cuff repair patients
8. PNF technique employed when resistance is given to concentric motion in both directions of a pattern
9. abbreviation for the group/class of drugs that includes Advil, Motrin and Celebrex
10. swing phase gait deviation commonly caused by inadequate knee flexion ROM
13. Ortolani and Barlow tests are used to diagnose this condition
14. location of decussation of the spinothalamic pathway carrying pain and temperature
16. abnormal high pitched sound occurring during inspiration that is a sign of an upper airway obstruction and a life threatening condition
17. functional mobility test that includes items for balance and gait with a maximum score of 30 points
19. one of the most common system for classifying burns is the Rule of _____



It's About You!

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PTA PROGRAM
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Just some of the things BPCC PTA students have been up to this year.....

BPCC PTA students toured several O&P facilities this spring. Pictured Right: Snell's Limb and Brace tour with Clyde Massey who provided valuable information on the fabrication of orthotics & prosthetics.



Left: BPCC PTA students volunteered their time to help with decorations and serving during the BPCC/City of Bossier Community Christmas Show. December 2014



Right: PTA students attended the fall LPTA conference in Baton Rouge, LA. September 2014

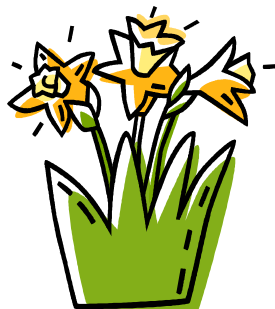


Way to Go!!

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!!

"She had me keep an index card on each patient with abbreviated version of goals listed (1. Gait 2. Core 3. Transfers etc....). I could then reference the card before seeing the patient and jot down notes on the back of the card during treatment. It really helped me focus on the goals and made note writing easier too."

Re: Tiffany Engle, PT
Trinity Home Health



"CI made sure to provide me as many learning opportunities as possible and regularly asked me questions to make sure I was thinking critically."

Re: Malorie Marchant, PTA
Shreveport PT & Sports Med

"My CI was extremely good at documentation and helped me practice different ways to approach note writing to show evidence that my patients were progressing functionally and that services were skilled."

Re: Jamie Hollon, PT
Good Shepherd Medical
Center

"She divided the weeks into 4 levels of independence. Week 1 was familiarization, Week 2 was still CI taking lead. Week 3 I took lead on patients from start to finish, Week 4 was basically me

seeing pt's with just simple assistance from CI. I really liked knowing ahead of time how she expected me to progress."

Re: Cheryl Lewis, PTA
Overton Brooks VAMC

"My CI quizzed me frequently on my patients. He gave me homework to look up any diagnoses, tests, or findings I was unfamiliar with and report back to him on what I found/researched."

Re: Pat Vance, PT
WK Bossier

"I loved that my CI regularly prompted me during treatment sessions to come up with various ideas for making an exercise easier or harder based on how a patient was responding to it."

Re: Jeff Spears, PTA
Trinity Home Health