



CURRY SCHOOL *of* EDUCATION
and HUMAN DEVELOPMENT

Development of a Collaborative, Simulation-Based Virtual Athletic Training Clinic

Luzita Vela, PhD, LAT, ATC

Thank You





Contents

- ✓ Describe the development of a collaborative virtual athletic training clinic that incorporated telemedicine and simulation
- ✓ Highlight successes and potential pitfalls to avoid
- ✓ Discuss possible ways in which this idea can be applied at other education institutions.

Poll Question #1



A high-angle, top-down photograph showing a large group of people's hands and forearms stacked in a dense, circular pile. The hands are of various skin tones, and the sleeves of their clothing are visible, showing a variety of colors and patterns including stripes, plaid, and solid colors. The word "community" is centered over the middle of the hand stack in a bold, black, sans-serif font.

community

<https://lead4.org/articles/connectedness-trengthsfinder-cliftonstrengths-strength/>



<https://www.batyr.com.au/the-power-of-connectedness/>

Collaborators



Meredith Decker-Hamm,
Cindy Trowbridge, Adam
Annaccone, Laura Kunkel,
Jamie Frye, Maegan
Daniels, Michael Higgins,
Lindsey Eberman, Julie
Cavallario, Jessica
Martinez, Tom Campbell



Mentor Thank You's

Lindsey Biggs
Sydney
Baumgartner
John Meskimen
Dan Waterman
Liz Cruze
Nicole Lee
Precious Barnes
Justin Young
Jenn Benedict
Brea Stanton
Brittany James
Megan Kinser
Micaela Lozano

Olivia Jackson
Dan Dobrowolski
Shannon Wright
Kylie Fendrick
Dyllan Hofmann
Karen Holmes
Jodee Roberts
Ben Colletti
Eliza Barter
Cassie Parise
Nick Farrar
Melanie Collier
Erin Brooks
Terius Grandison

Jeremy Eith
Lizzie Leitch
Keith Thomson
Shannon Snell
Jordyn Rine
Jordan Hart
Justin Shaw
Vanessa Ramirez
Ally Gardiner
Francesca Harvey
Lauryn Hunter
Hillary Masdon
Emily McMurtrie
Jon McMurtrie
Siaura Saville

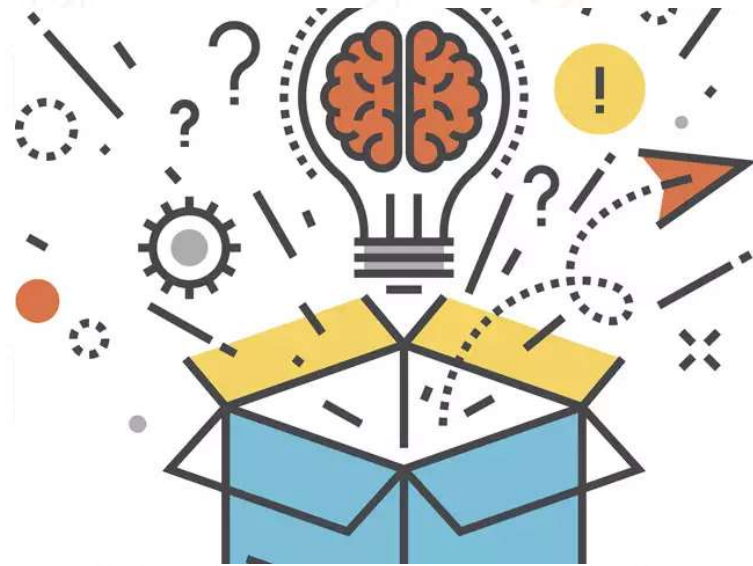


UNIVERSITY
of VIRGINIA

CURRY SCHOOL *of* EDUCATION
and HUMAN DEVELOPMENT

Problem


How was I going to find a way to provide equitable and safe clinical experiences in the midst of a pandemic?



“Necessity is the mother of all invention”

Poll Question #2



Group	Members
	Lorch, MacAdam, Oh, Santos, Scales, Troiano

Date	Topic	Script & Model	Clinician	Judge	Audience/ Document Keepers	Case Present
2/11	Shoulder	Troiano	Santos	Lorch	Oh, MacAdam, Scales	2/25
2/18		Scales	MacAdam	Troiano	Oh, Lorch, Santos	
3/3	Elbow, Wrist/Hand	Oh	Lorch	Scales	MacAdam, Troiano, Santos	3/24
3/17		Santos	Troiano	Oh	Lorch, MacAdam, Scales	
3/31	Acute Illness	MacAdam	Scales	Santos	Lorch, Oh, Troiano	4/14
4/7	Chronic Illness	Lorch	Oh	MacAdam	Santos, Scales, Troiano	

CRT	Clinician	Patient	Audience
Interview	Uses pt centered approach to elicit chief complaint (cc) & pt concerns	Answers Qs	Listens
Time out	Explains reflections, IDs KFs, documents on blackboard, discusses audience suggestions	Listens	Suggests further Qs
Round-off interview	Asks pt relevant questions suggested by audience from T/O	Answers questions	Listens
Time out	Documents diffs on blackboard with clinical sieve, plans the PE	Listens	Participates in clinical sieve

Idea

Can we combine resources to create a virtual clinic that uses simulation to create meaningful clinical education opportunities?

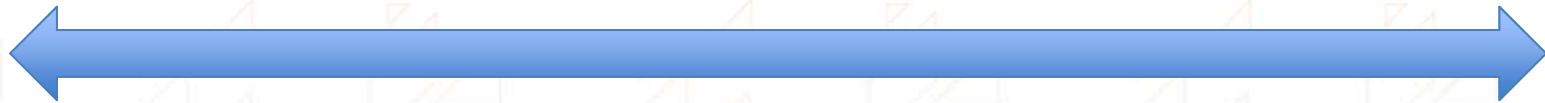


Hashing Out Details

Needed to agree upon goals, timeline, logistics, activities, resources, technology

- ✓ Weekly meetings
- ✓ Used a living document to create a clinical education plan
- ✓ Provided feedback and edited document and templates in an iterative process

Overview of Virtual Clinic



6-week period in Summer 2020

Purpose: To create a collaborative virtual clinical education clinic that incorporates telemedicine and simulation to enhance students clinical reasoning and decision making skills.



Quick Side Tour...

Simulation-Based Education

Standardized
Patients



UNIVERSITY
of VIRGINIA

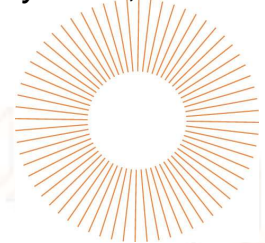
High and low
fidelity
simulators



CURRY SCHOOL of EDUCATION
and HUMAN DEVELOPMENT

“An educational strategy in which a particular set of conditions are created or replicated to resemble authentic situations that are possible in real life.”

Gaba DM. The future vision of simulation in health care. *BMJ Quality and Safety*. 2004; 13:i2-i10.



Why Use Simulation?

- Used in a variety of healthcare professions
- Can be used for a variety of educational and assessment purposes
- Offers consistent student exposures to important cases (e.g. case exposure that is inconsistent or skills that are important)



REALITY

SIMULATION



UNIVERSITY
of VIRGINIA

CURRY SCHOOL of EDUCATION
and HUMAN DEVELOPMENT

Telehealth

“Communication and information technologies [used] to provide or support long-distance clinical health care, patient and professional health-related education, public health, and health administration.”



<https://yourstory.com/2020/04/coronavirus-mit-startup-daytoday-virtual-healthcare-system>

Nat'l Advisory Committee on Rural Health & Human Svcs., Telehealth in Rural America: Policy Brief, March 2015, at 2, <https://www.hrsa.gov/advisorycommittees/rural/publications/telehealthmarch2015.pdf>

Telehealth Related Research



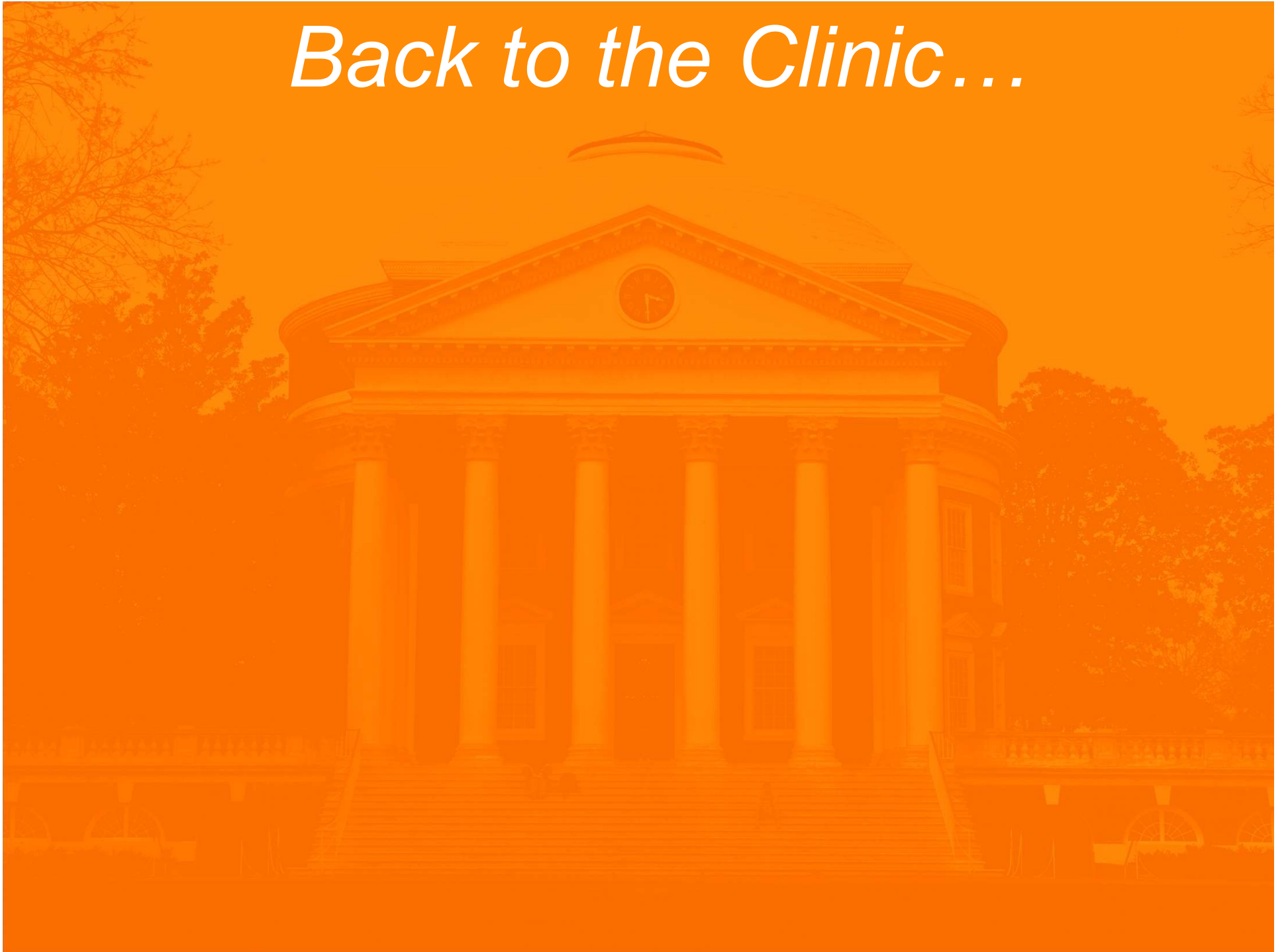
<https://www.infinityrehab.com/tag/telerehabilitation>



<https://shrs.uq.edu.au/>

- Cottrell, MA et al. Real-time telerehabilitation for the treatment of musculoskeletal conditions is effective and comparable to standard practice: A systematic review and meta-analysis. *Clin Rehabil.* 2017;31: 625-638.
- Verduzco-Gutierrez, M et al. How to conduct an outpatient telemedicine rehabilitation or prehabilitation visit. *Journal of Injury, Function and Rehabilitation.* 2020; 12: 714-720.
- Russell T et al. The diagnostic accuracy of telerehabilitation for nonarticular lower-limb musculoskeletal disorders. *Telemed J E Health.* 2010;16(5):585-594.

Back to the Clinic...



Virtual AT Clinic Goals

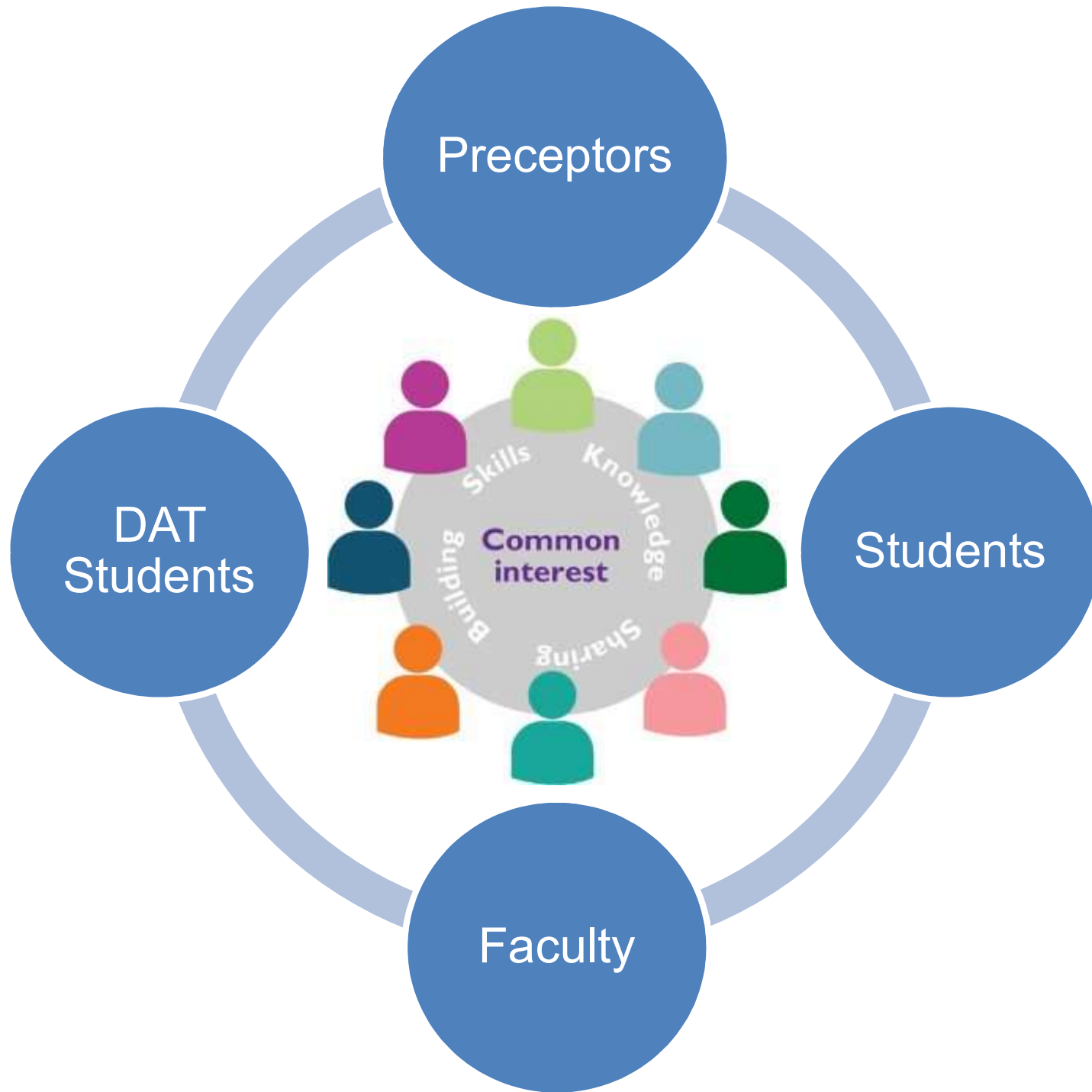
1. Collaborate and communicate effectively with student peers, athletic training professionals, and other stakeholders.
2. Explore and devise clinical reasoning habits to develop sound, appropriate, and timely clinical practice patterns.
3. Conduct an examination, formulate a diagnosis, and design a care plan for a patient with a complex case of the lower extremity using evidence-informed and patient-centered principles.
4. Use best practices in telemedicine to facilitate patient care
5. Self-reflect and self-assess upon learning experiences to identify how to adapt personal self-development goals.
6. Identify methods to apply concepts and skills learned within the virtual clinic to integrate evidence-informed practice behaviors into future clinical practice





Question to Ponder

What are 3-5 “KSAs & behaviors” that you believe that you would want to build a virtual clinical education experience around?

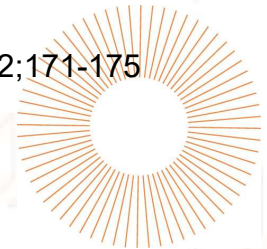


Faculty Mentor Role

- Lead weekly debriefs (use diamond debrief) after reviewing videos
- Develop the mini-encounters videos that provide instruction on the selected topic
- Provide feedback on SP case development
- Get feedback about any weekly logistics problems and helps to create solutions

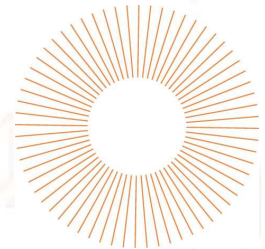


Jaye P, Thomas L, Reedy G. 'The diamond': a structure for simulation debrief. The Clinical Teacher. 2015; 12;171-175



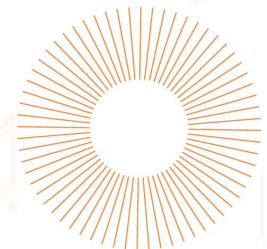
Preceptor Mentor Role

- Create video on setting specific details
- Assess the authenticity of the student-created cases during week 2 of Virtual Clinic
- Participate in weekly mini-encounters and provided informal feedback on performance
- Participate in weekly diamond debriefs (weeks 3-5) to provide perspective of a clinician



DAT Mentor Role

- Provide infographic on telemedicine best practices
- Lead discussions with students about progressive and hypothesis-driven, progressive SP development; increasing fidelity and authenticity of encounters (reliability, moulage, etc...)
- Lead discussion on telemedicine encounters and performing physical exam procedures
- Lead discussion on telemedicine encounters and demonstration/ providing feedback on therapeutic exercises; and making objective and patient-centered RTP decisions.

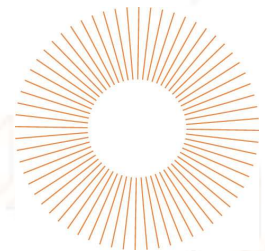


Student Role

- Work collaboratively with peers
- Initiate and complete mini-encounters
- Design and act out a hypothesis-driven case scripts for simulation.
- Manage several simulated patients at three time points & creation of a care plan
- Document patient cases
- Self-assess and reflect (milestones, areas for growth, EBP integration)



<https://www.bardavon.com/coronavirus/>





Question to Ponder

Who are some strategic partners (on-campus and off) that you can partner with to create a virtual experience?

Group Composition

10 faculty members = 10 learning groups

20 preceptors = 2 per group

22 DAT students = 2 per group (2 groups of 3)

33 students = 3 per learning groups (2 groups of 4)

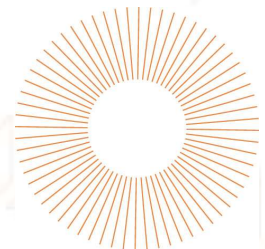
#	Faculty Member	Clinical Preceptor	DAT Student	AT Student	Setting
1	1	2	2	1 UVA (hip/thigh) 1 UTA (knee) 1 ODU (lower leg/ankle/foot)	Emerging Clinic HS
2	Etc...				



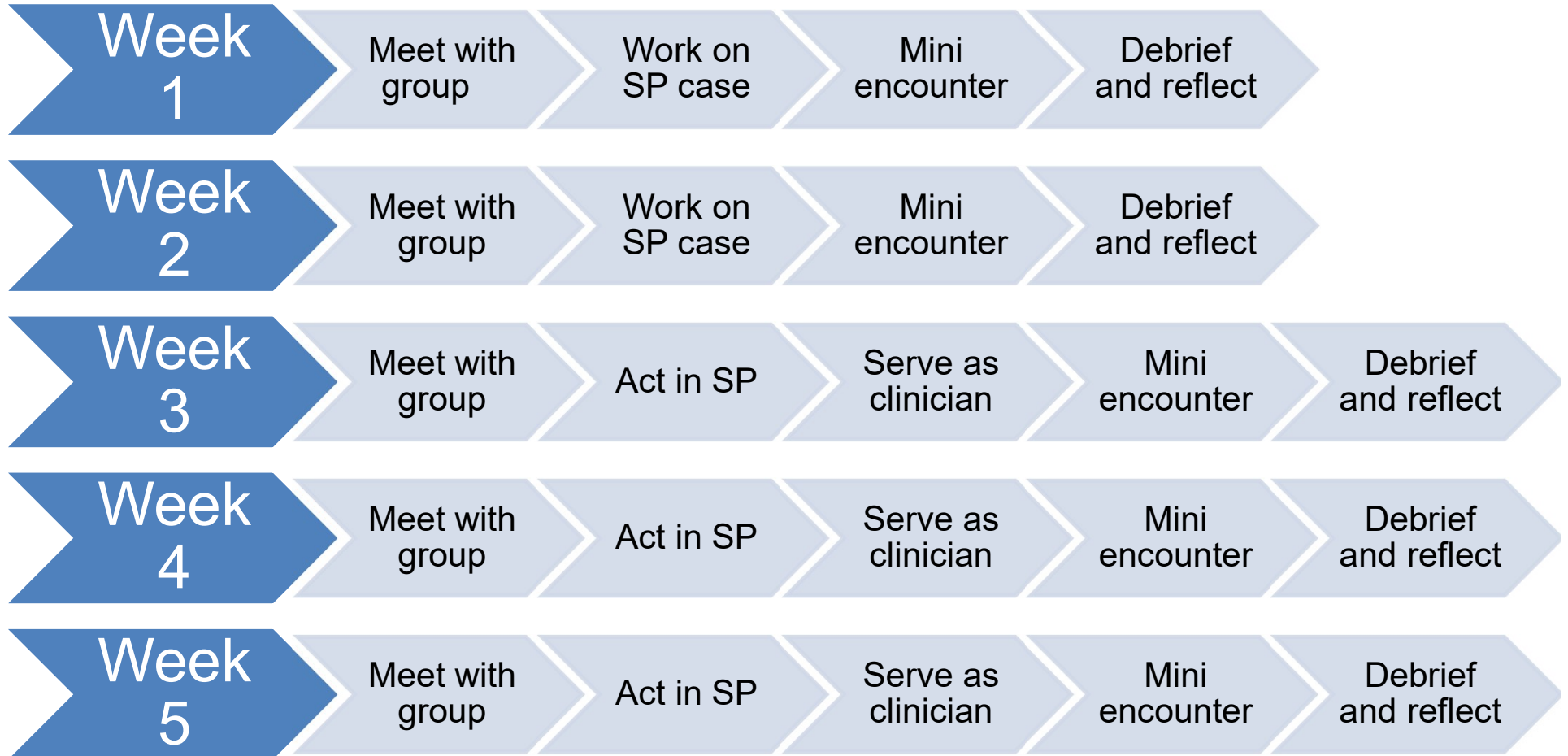
Logistics

The Virtual AT Clinic occurred in multiple steps:

1. For the first 2 weeks of the Virtual Clinic, students created a progressive, hypothesis-driven simulation case, participated in mentored sessions about the telehealth and the case, and completed several mini encounters with preceptors.
2. For the last 3 weeks of the Virtual Clinic, students acted as SPs in formal encounters where students engaged in a progressive SP encounter and completed mini-encounters
 1. Initial eval, pt education and referral;
 2. F/U eval, intervention plan and HEP
 3. F/u eval, RTP/discharge



Logistics



	Week 2 – Student Schedule
6/15	<u>On own time:</u> <ul style="list-style-type: none"> •Students review feedback and work on the progressive case. •Prep for mini encounter (delivering bad news) •Reach out to schedule mini-encounter for Wednesday
6/16	<u>Together:</u> <ul style="list-style-type: none"> •Meet with DAT & faculty mentor to discuss case development <u>On own time:</u> <ul style="list-style-type: none"> •Continue developing progressive SP
6/17	<u>Together with preceptor:</u> <ul style="list-style-type: none"> •Complete mini-encounter with preceptor/faculty. <u>On own time:</u> <ul style="list-style-type: none"> •Post mini-encounter into documentation system (20 min)
6/18	<u>On own time:</u> <ul style="list-style-type: none"> •Submit case for review by mentors
6/19	<u>Together:</u> <ul style="list-style-type: none"> •Meet with learning group and faculty mentor for debrief <u>On own time:</u> <ul style="list-style-type: none"> •Schedule telemedicine visits •Student edits case based on feedback from mentors
Sat/ Sun	<u>On own time:</u> <ul style="list-style-type: none"> •Students submits final case on google doc •Students submits weekly reflection

	Week 2 – Mentor Schedule
6/16	<u>Faculty and DAT:</u> Students meet with DAT mentors and faculty member <ul style="list-style-type: none"> • Provide information on increasing SP fidelity, authenticity and moulage. • Use breakout rooms to discuss details about the case and possibilities • Reviews activities due prior to the next meeting including mini-encounter pre-brief
6/17	<u>Preceptor:</u> Complete mini-encounter #2 with student. Use 10 minutes to ask Q and A of preceptor about case development (authenticity check #2).
6/18	<u>Faculty (on own time):</u> Review the student performance on the mini-encounter. Use the hyperlinks in the learning document for the group
6/19	<u>Faculty:</u> Meet with learning group and faculty mentor at designated time and complete check-in and Q and A about the week's activities <ul style="list-style-type: none"> • Complete diamond debrief about the mini encounter • Q and A • Have the students shift gears to think about the activities that are due before next meeting
Sat/ Sun	<u>DAT and faculty:</u> Students post final case for DAT mentor//faculty to review and post any final comments

Mini-Encounters

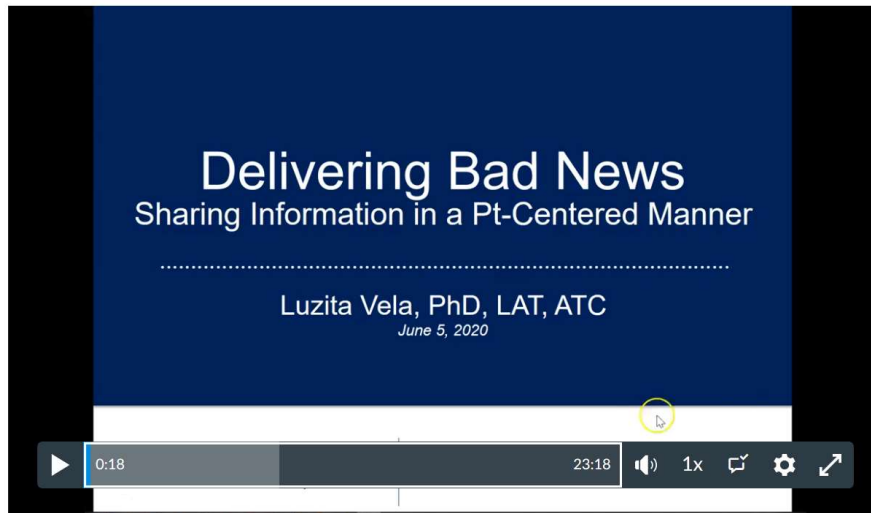
Focus: Communication Skills

Learn: Videos (5 videos, each with a 20-minute lesson)

Do: Manage a patient in a 10-15 minute interaction and get immediate feedback

1. Mental health check-in
2. Delivering bad news
3. Presenting a case to a physician/HCP
4. Communication about HEP compliance & insurance concerns
5. Injury report to coach & communicating with a parent/guardian

Example – Mini-Encounter



Mini-Encounter #2 Scenario: You have a collegiate gymnast in their last year of eligibility. The pt was injured during a dismount and sustained a fracture. The injury was stabilized and transported. The x-rays revealed a bi-malleolar fracture that required ORIF. A conversation with the team physician and sports medicine team reveals that based on the complexity of the fracture, length of recovery, and the timing in the year that the patient would be unable to compete in their final year. You will be delivering this news to the patient.



Case Development

Progressive, hypothesis driven, SP cases

- Hypothesis-driven because students had to identify how the case would present differently during physical exam based on 2 different hypotheses
- Progressive because it was developed at 3 times points: initial evaluation, f/u evaluation, and RTP/discharge

Yudkowsky, R. et al. A hypothesis-driven physical examination learning and assessment procedure for medical students: initial validity evidence. *Med Educ.* 2009;43; 729-740.

Progressive SP Cases

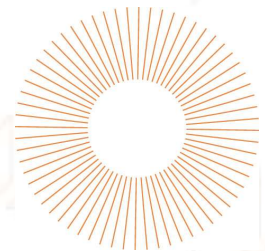
AT Student	Setting
Hip/Thigh Case Knee Case Lower leg/Ankle/Foot Case	Emerging Clinic HS

- ✓ Asked the students to develop “complex” cases where the patient had an underlying condition, mental health concern, participation restriction outside of sport, etc...

Clinical Sites

To establish the parameters for the fictitious setting in which the case is taking place

- **Settings:** Secondary School (Traditional Athlete); Campus Rehabilitation Clinic (Recreational Athlete); Fire/Rescue AT Clinic (Tactical Athlete)
 - Size of facility/clinic, ~# of athletes/patients, # of ATs, typical work week description, access and frequency of visits to other HCP (team physician, school nurse, PTs, mental health professionals, etc...), SES of school/area, workers comp/insurance considerations, standing orders of ATs/supervising physician



Thanks to Lindsey Eberman!

Progressive SP Case Information

Case Name:		
Case Author:		
Date:		
Setting:		
Patient Name:		
Pt Demographics:		
Presenting Complaint:		
Differential Diagnosis: (provide two)		
Task(s) for examinee:		
Exam Room Needs:		
Dress		
Presenting Situation		
Psychosocial Profile		
Opening Statement		
Past Medical Hx		
Social Hx		
Family Medical Hx		
Medications		
Allergies		
History of Present Illness	DX 1	DX 2
Physical Exam Findings:	DX 1	DX 2
Special Instructions:		

Provides context



Focus on whole-person care using ICF model



Demonstrate how pt. can present based on dx



Visit #1 – Initial History and Physical Examination

Case Name:	Josh
Case Author:	Luzita Vela
Date:	5/23/20
Setting:	DII College/University Track and Field AT Facility (athletes are away for winter holidays and will come back to school to train for indoor season in ~10 days)
Patient Name:	Joshua Green
Pt Demographics:	21 y/o, male
Presenting Complaint:	R foot pain
Differential Diagnosis: (provide two)	Tarsal tunnel syndrome, plantar fasciitis
Task(s) for examinee:	History, Physical Exam, Patient Education, Reflection
Exam Room Needs:	Telemedicine visit (access to internet and device); no specialty equipment for exam
Dress	T-shirt and shorts (need to have unobstructed access to your foot and lower leg)
Presenting Situation	You are a senior, track athlete that will be competing your last indoor season. <u>You're</u> currently away for the winter holiday and have been training at home. You have R foot pain that has been limiting your ability to train at home and its persistence is concerning to you. Your main concern is that you <u>aren't</u> feeling explosive or powerful and this is concerning since you're a sprinter and jumper. You have also noticed it when wearing nicer shoes (for church and when waiting tables).
Psychosocial Profile	Senior, track athlete. You are feeling nervous and a little frustrated because you want to have a good senior, track season and <u>are fearing</u> that this is going to be a set-back. At home for the holidays, which are stressful since your parent's divorce and having to juggle spending time with family members. Have been diagnosed with generalized anxiety disorder; take Lexapro (~3 years) and have a treating physician within your hometown.

Opening Statement	I started to feel some pain on the inside of my foot about two weeks ago. I thought that it would go away but <u>it's</u> gotten worse. Now I feel it when I run and do conditioning and it is getting worse. I feel like I <u>can't</u> push off my toes really well and my power is decreased especially with jumping.	
Past Medical Hx	<ul style="list-style-type: none"> Have been diagnosed with generalized anxiety disorder; take Lexapro (~3 years) and have a treating physician within your hometown. Previous metatarsal pain on R foot (2 years prior) 	
Social Hx	You are living at home for the holidays (one state away). You live with your mom (parents are divorced); you are single; you have started working at a local restaurant of family friend (which you do during trips back home)	
Family Medical Hx	<ul style="list-style-type: none"> Father has high blood pressure Paternal grandfather died of heart attack @ 55 y/o Mother, healthy 	
Medications	Lexapro, multivitamin	
Allergies	None	
History of Present Illness	Tarsal Tunnel Syndrome	Plantar Fasciitis
	<p>Q - Mechanism of Injury</p> <ul style="list-style-type: none"> Don't remember one <p>Q - Description of Symptoms</p> <ul style="list-style-type: none"> Present symptoms – pl with jumping activity (particularly with landing on toes and having to absorb force) and pushing off Location of symptoms – pl behind medial malleolus into foot (point to navicular tubercle) Changes in symptoms – gradually gotten worse over time Length of symptoms – 2 weeks old <p>Q - Pain Characteristics</p> <ul style="list-style-type: none"> P – provocation – pushing off the toes, jumping, standing for long periods of time (while waiting tables) Q – quality – sharp with jumping, dull with activity and 	<p>Q - Mechanism of Injury</p> <ul style="list-style-type: none"> Don't remember one <p>Q - Description of Symptoms</p> <ul style="list-style-type: none"> Present symptoms – pl with jumping activity (particularly with landing on toes and having to absorb force) and pushing off Location of symptoms – pl on the plantar aspect of foot Changes in symptoms – gradually gotten worse over time Length of symptoms – 2 weeks old <p>Q - Pain Characteristics</p> <ul style="list-style-type: none"> P – provocation – pushing off the toes, jumping, standing for long periods of time (while waiting tables); first steps out of bed or walking (it seems to get better after it warms up but gets worse if I am one my feet too long) after sitting for a long period of time

Care Plan ICF Flow Sheet

Directions: Please complete the intervention planning flowsheet (page 1) after the initial evaluation. Use page 2 for the initial note and page 3 for the session note.

Category	Supporting Information
Patient demographics	
Patient's differential diagnosis/diagnoses	
Tissue(s) involved	
Stage of healing	
Tissue Irritability (low, moderate or high)	

<u>Participation Restrictions:</u>	<u>Activity Limitations:</u>	<u>Impairments:</u>
------------------------------------	------------------------------	---------------------

Created a care plan at 3 time points:

1. Initial Evaluation
2. Follow-up Evaluation
3. RTP/Discharge

Patients, values, preferences and goals	Additional information about the personal and environmental factors that are helpful to understand.
Interventions: (generally describe the interventions that will address the priorities identified)	



Question to Ponder

Think of a few meaningful activities that you would want to develop within a virtual clinical that address your goals and capitalize on strategic partners?

Technical Logistics

Different LMS and online meeting platforms

My Drive > Virtual AT Clinic - Summer 2020 > Learning Groups ▾



Learning Group #10 - Week...

Learning Group #1 - Weekly...




Learning Group #7 - Weekly...

Learning Group #3 - Weekly...










↑ Google docs and sheets ↑

Week 2: June 15-21							
Student Name	Honor Code Promise	Tuesday Meeting	Mini-Encounter #2	Mini-Encounter Documentation	Friday Meeting	Progressive SP Draft #2	Reflective Journal #2
Josh	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	https://youtu.be/LD1Cd7pge	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	https://docs.google.com/doc	https://docs.google.com/docur
Mia	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	https://virginia.zoom.us/rec/s	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	https://docs.google.com/doc	https://docs.google.com/docur
Briana	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Blawr003_ that's the passwor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	https://docs.google.com/doc	https://docs.google.com/docur
Kimberlie	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	https://virginia.zoom.us/rec/s	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	https://docs.google.com/doc	https://docs.google.com/docur

Google Sheets







Learning Group #1 - Weekly Activity Log   

File Edit View Insert Format Data Tools Add-ons Help Last edit was made 3 days ago by anonymous

100% \$ % .0 .00 123 Default (Ari... 10 B I S A         

How to Contact Preceptors

A	B	C	D	E	F	G	H	I	J
Week 3 Food for Thought									
Review your evaluation materials for LE - please be sure to think about patient-centered principles and measure all levels of the disablement process including activity limitations (function). Identify a PROM that you will use. Here are some useful sites:									
https://www.orthotoolkit.com/ https://www.sportsmedres.org/patient-reported-outcome-measures/ https://www.orthopaedicscore.com/									
Look at the Care Plan template to know what you will need to do this week									
Complete Part 2 of the progressive SP that you developed; this can be based on how your clinician provided care and interventions									
Review your goals for the progressive SP experience, which were identified in reflection #1									
Week 4 Prep									
Prep for mini encounter (communication about compliance with HEP and insurance concerns) by watching short lesson video (15-20 minute refresher and resources) on Canvas. Reach out to schedule mini encounter with preceptor.									
If you need help with language of primary versus secondary insurance, see this form: https://arkansasrazorbacks.com/pdf/sports-medicine/forms/insurance-form-12-5-16.pdf									
Prep to complete progressive, SP encounter #2 during the week. Visit #2 with the same patients for f/u H&PE. Provide the care plan and home exercise program. Demonstrate each exercise on the call and provide feedback. Provide take-home videos and plan for patient's use. Answer patient questions (medication, home). Progress your SP case that you developed.									

  Additional Links, Information, Feedback  Community Resources - Articles/Videos  SP Encounter Ass  

Technical Logistics

Different LMS and online
meeting platforms

Welcome to the Summer 2020
Virtual Athletic Training Clinic



We wanted to create a collaborative virtual clinical education clinic that incorporates telemedicine and simulation to enhance students self-reflection, clinical reasoning, decision-making, and collaboration.

Programs: Indiana State University, James Madison University, Old Dominion University, University of Texas Arlington, and University of Virginia

Idea: During Summer 2020 (June 8th-July 9th), professional students will engage in a Virtual AT Clinic opportunity where they will manage patient cases with the goals of practicing clinical reasoning strategies, designing and acting out several hypothesis-driven case scripts for simulation, managing several simulated patients in a progressive SP that includes at least three time points for each patient, and interacting with mentors in mini-encounters to discuss and practice skills related to athletic training clinical practice including telemedicine, communication skills, mental health, etc... Students will also interact with a variety of peers and athletic training professionals.

▼ Introduction to the Virtual Athletic Training Clinic

📄 Virtual AT Clinic Values

📄 Virtual Athletic Training Clinic Description

📄 Description of Learning Activities/Products

▼ Virtual AT Clinic Resources

📄 Tech Information

📄 Clinical Settings Descriptive Videos

📄 Weekly Meeting Links & Learning Group Activity Log Sheets



▼ Week 1: June 8-14

📄 Week 1 Activities and Videos

📄 Telemedicine Articles

Publically accessible LMS link

Assessments

1. Reflective Journal (weekly)
2. Cooperative Learning Assessment (@ end of clinic)
3. Athletic Training Confidence Scale (pre and post clinic)
 - Armstrong KJ, Jarriel AJ. Standardized patient encounters improved athletic training students' confidence in clinical evaluations. *Athl Train Educ J*. 2015; 10(2): 113-121
4. Student Assessment of DAT Mentors (post clinic)

Outcomes Data

Athletic Training Confidence Scale

17 item scale measuring confidence in AT skills (1 = *strongly disagree*, 5 = *strongly agree*)

Table 2. Pre-Encounter and Postencounter Confidence Rating Items^a

Confidence Rating Item
I am confident in my abilities to identify what questions to ask while obtaining a patient history.
I am confident in my abilities to generate follow-up questions to a patient's response.
I am confident knowing when I have obtained enough information from a patient history.
I am confident selecting appropriate palpations.

Armstrong KJ, Jarriel AJ. Standardized patient encounters improved athletic training students' confidence in clinical evaluations. *Athl Train Educ J*. 2015; 10(2): 113-121

Outcomes Data

Athletic Training Confidence Scale

17 item scale measuring confidence in AT skills (1 = *strongly disagree*, 5 = *strongly agree*)

- Wilcoxon Signed-Rank ($Z = 4.72$, $p < .001$) indicated a significant increase in confidence scores from pre-clinic (Mdn=3.71) to post-clinic (Mdn=4.24)

Outcomes Data – Cooperative Learning

“I think this experience showed me how important the team approach is with health care. It showed me that not only is it acceptable to get other opinions, but encouraged to do so.”

“I hope that once I am certified I am surrounded by healthcare professionals that support me like this small group and push me to be better.”

“We were able to do this with the other students while having the opportunity to talk with the mentors in the group about our decision making. This really helped me think through questions and increased my confidence a good amount going into the encounters.”

Outcomes Data – Decision Making

“Since COVID-19 has turned everything upside down, I felt my skills as a clinician took a turn because I wasn’t getting any hands on in person experience and was worried I would lose what skill I had to complete an evaluation of an athlete. However, during both SP evaluations I found that the steps started to just come naturally and it didn’t feel so stressed about missing anything. It was a major boost of confidence when I was able to develop a differential diagnosis for both cases that was exactly what the athlete was experiencing. I also felt my interactions with the simulated patient flowed very well and I didn’t feel awkward or inexperienced in delivering education and instruction.”



Question to Ponder

Think of a few meaningful assessments that you can use to measure the value of a virtual clinic?

Reflecting Back...Take Home Points

- Goals – always bring back to big picture
- Technology – guides and workflow procedures
- Flexibility – of students and mentors
- Expectations of time – be clear about time commitment to all involved
- Role expectations – be clear about roles
- Communication – clear and consistent

Poll Question #3



