USC Division of Biokinesiology and Physical Therapy



Introduction

There is growing interest in hybrid online/on-campus instructional models that enable students of physical therapy to train while residing within their chosen communities.

Little to no information specific to translating traditional, on-campus physical therapy curricula into a hybrid model has been published to date.

A 4-unit lecture/lab patient management course that prepares DPT students to examine and evaluate patients across the lifespan, within multiple physical therapy settings, was translated from a traditional model to a hybrid online/on-campus model.

Methods

Translation required that each pathway (traditional and hybrid) have the same learning objectives, content, student performance expectations, and semester duration. Equity in course content and performance measures was the highest priority in the translation process. An expanded faculty delivered the course simultaneously in the hybrid and traditional models.

Traditional Pathway Course Structure



Translation of a Traditional DPT Clinical Course into a Hybrid Online/On-Campus Model

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Translation Results

Pedagogical Planning

Interactive Questions: No stakes formative questions interspersed throughout the asynchronous content for student self-check of understanding. Unique Assignments: Video assignments related to student skill practice performance and reflection assignments of psychomotor skill practice. Examination Similarities: Same Practical Examination requirements; <20% difference in Written Examination questions, same concepts tested. Learning Best Practices: Average video length 5.2 min to assist with student focus

Content Production 25 days of studio time 14 faculty members filming 203 hours filming Professional production crew

3D animation Anatomical overlay Bone model Side-by-side comparison

Sample of Post Production Components





Sample Unit Breakdown

Below is a sample week (hip and knee examination/evaluation) with time in minutes

Residential Pathway

In-Person Lecture: 135 min

> In-Person Skills Lab: 435 min

*Represents a calculated average based on three time points of student self-reported skill practice time over the previous 7 days (academic year 2019, non-immersion weeks).

Quality Assurance **Post Production**

> Video edits prior to launch Annual iteration process Ongoing research on pathway effectiveness

Hybrid Pathway



Student Evaluations (University Student Assessment, 2018)

Student Evaluation M

Course Design

Instructional Practices

Inclusion Practices

Assessment Practice

Course Impact

Previously Reported Research

Ongoing Analysis

- for presentation (ELC, 2020)
- **Adjustments Made and Lessons Learned**

Key Points

- support and infrastructure.

Scientific/Clinical Merit and Significance

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References

- nal of Physical Therapy Education, 28(3), 35–41. https://doi.org/10.1097/00001416-201407000-00006





Discussion

letric (4.0 scale)	Traditional (n=93)	Hybrid (n=46)
	3.61+/-0.59	3.68+/-0.48
S	3.68+/-0.57	3.81+/-0.35
	3.69+/-0.51	3.78+/-0.40
S	3.54+/-0.59	3.63+/-0.55
	3.82+/-0.40	3.92+/-0.22

• Similar levels of student's self-efficacy of psychomotor skills of assessment, interventions and movement and significant improvement in self-efficacy following summative assessments in each learning model (ELC, 2019)

• Analysis of written and practical examination score comparison is currently in preparation

[•] Multi-stage, on-going programmatic assessment continues to be a Division priority to compare learning outcomes in hybrid and traditional pathways

• Proficiency with early semester skills (assisted device training and transfers skills) prompted addition of an Immersion experience prior to the start of the semester to facilitate learning of psychomotor skills in the online environment

 Addition of further skill performance in asynchronous manner such as the use of charades during Live Sessions and an increase in number of Skill Feedback Assignments.

Conclusions

• This poster is among the first to describe the process of translating a traditional, on-campus DPT clinical course into a hybrid online/on-campus model.

Collaboration with an online course management company provided faculty with critical

 Comparisons between the two formats has been presented including lecture hours, laboratory hours, assignments, written exams, and practical exams.

• As healthcare education trends are evolving toward inclusion of distance learners, this presentation details a model for the translation of traditional curricula to hybrid online/on-campus models with embedded quality assurance checks.

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• Lehmann, R., Seitz, A., Bosse, H. M., Lutz, T., & Huwendiek, S. (2016). Student perceptions of a video-based blended learning approach for improving pediatric physical examination skills. Annals of Anatomy, 208, 179–182. https://doi.org/10.1016/j.aanat.2016.05.009

• Liebert, C. A., Mazer, L., Bereknyei Merrell, S., Lin, D. T., & Lau, J. N. (2016). Student perceptions of a simulation-based flipped classroom for the surgery clerkship: A mixed-methods study. Surgery (United States), 160(3), 591–598. https://doi.org/10.1016/j.surg.2016.03.034

• Mccutcheon, K., Lohan, M., Traynor, M., & Martin, D. (2015). A systematic review evaluating the impact of online or blended learning vs. face-to-face learning of clinical skills in undergraduate nurse education. Journal of Advanced Nursing, 71(2), 255–270. https://doi.org/10.1111/jan.12509 • Murray, L., McCallum, C., & Petrosino, C. (2014). Flipping the Classroom Experience: A Comparison of Online Learning to Traditional Lecture. Jour-

• van Duijn, A. J., Swanick, K., & Donald, E. K. (2014). Student Learning of Cervical Psychomotor Skills Via Online Video Instruction Versus Traditional Face-to-Face Instruction. Journal of Physical Therapy Education, 28(1), 94–102. https://doi.org/10.1097/00001416-201410000-00015