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2024 PTLI Scholar – FHEL 2024-2025 Project Abstract

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Abstract

Project Title : *Exploring Competency-Based Education and how it can be incorporated in DPT education Practical Exams.*

Introduction/Aim: Competency-based education (CBE) has been widely adopted in other healthcare education programs, including medicine and pharmacy. CBE is gradually making its way into physical therapy education. This leadership project focused on establishing a process, via survey, to gain a deeper understanding of the constructs of CBE and ways to incorporate CBE strategies into practical exams.

Ultimately, the aim of this leadership project was to develop a comprehensive, competency-based practical exam that assesses students' critical thinking, clinical decision-making, patient management aptitudes, and hands-on skills.

Subjects: Subjects included Chairs, Associate Chairs, Program Directors, and Associate Program Directors that lead DPT programs in the United States. A survey was emailed to 278 subjects at accredited physical therapy programs; 27 responses were received, in varying degrees of completion, equating to a return rate of almost 10%.

Methods: This leadership project was phased:

1. Scoping review of CBE-related literature, with particular focus on implementation in DPT education,
2. Survey to leadership at CAPTE-accredited DPT programs to gather data on use of CBE and Simulation-based education (SBE),
3. Analysis of DPT programs that currently utilize CBE and/or SBE, how frameworks are applied, and how concepts could inform our comprehensive practical exam design.

Results: We suspected that programs utilizing CBE may also using SBE, thus we assessed both CBE and SBE constructs in the survey. Nine responses provided information concerning CBE. Of these, six reported using CBE in 0-24% of the

curriculum, and 3 utilize CBE in 25-49% of the curriculum. The areas of use vary, with one program reporting 100% use of CBE in all areas of DPT education. At the other end of the spectrum was one program that uses less than 10% in orthopedics, neurologic, cardio-pulmonary, and acute care. Other select responses from the CBE survey are shown in Table 1.

Public or private:	Type of program:	CBE elements	Assessments	Assessment Types	Grading
7 - Public	9 - Residential	8 - Student-centric approach	8 - Link defined competencies to assessments	9 – Simulation-based assessment	6 – Pass/Fail only
2 - Private	0 - Hybrid	7 - Active learning	7 – Determine and utilize meaningful competency thresholds based on multiple sources of assessment validation	8 – Practical exams	3 – Grading scale
		7 - Student outcomes	4 – Link assessments to external measures	7 – Written exams	

Table 1. Competency-Based Education

We had 23 responses for the SBE portion of the survey. Of the responses, seven programs reported utilizing a Certified Healthcare Simulation Educator. The remaining 16 utilize core faculty members who have interest in SBE. Other select results are outlined in Table 2.

Public or private:	Type of program:	SBE elements used in DPT education:	Elements used in SBE:	Assessment Types:	Grading:
14 – Public	23 DPT education	15 – 0-24%	23 – Case-based	7 – Written exam	14 – Instructor assessment
9 - Private	2 Resident education	8 – 25-49%	19 – Standardized patient	7 – Practical exam	13 – Grading scale
			6 – Virtual Reality	5 – Other (oral, PEAT, Com exam)	10 – Pass/Fail only

Table 2. Simulation-Based Education

Discussion/Conclusion: According to our data, CBE constructs are being utilized by residential DPT programs housed in primarily public institutions. Programs utilize student-centric SBE and practical exams with the majority using assessments on a pass/fail basis. SBE concepts are being utilized primarily by DPT programs with a small number using SBE in residency. SBE is incorporated into 0-24% of program curriculum who participated in this survey and are focused on case-based models, primarily being assessed via written and practical examinations.

A final future product of this project includes the development and implementation of a comprehensive, competency-based, end-of-year-one practical examination for our institution.

NOTE: Dr. Windsor was partially funded by a PTLI Scholarship to participate in the APTA Fellowship for Higher Education Leadership (FHEL) and complete this capstone project. This project summary is being shared with PTLI to upload on their website as an expectation of the PTLI Scholar Program. PTLI looks forward to following Dr. Windsor and her work as she continues in her DPT education leadership journey. Should this FHEL initiated project continue, this data may be included in other presentations/written submissions of this author.