

STUDENT LEARNING ASSESSMENT REPORT

PROGRAM: Doctor of Physical Therapy

SUBMITTED BY: Skye Donovan PT, PhD, OCS

DATE: September 29th, 2015

BRIEFLY DESCRIBE WHERE AND HOW ARE DATA AND DOCUMENTS USED TO GENERATE THIS REPORT BEING STORED:

Data for this report are documented and stored in three ways 1) in paper format in a locked filing cabinet in the Chair's office, 2)electronically on the University maintained Share drive 3) on a external drive secured in a locked drawer in the Chair's office

EXECUTIVE SUMMARY

Program description from the Course Catalog: Please copy and paste the current year's catalog description of this program. This is generally a one-two paragraph description immediately following the name of the program. Please be sure to include the listing of program outcomes as printed.

The Marymount University Doctor of Physical Therapy (D.P.T.) program prepares generalist practitioners to deliver best available physical therapist practice for improving movement, function and health across diverse individuals and communities. The program employs a dynamic learning-in-context environment that is warm and welcoming. Critical thinking, professionalism, respecting individual differences, and adherence to ethical practices ground all classroom, clinic, and community activities. The program utilizes a modified problem-based curriculum unique to the region.

Upon successful completion of this program, students will be able to

- function independently, managing patients with a wide variety of simple or complex conditions;
- perform skilled physical therapist examinations, interventions, and clinical reasoning proficiently and consistently;
- apply best available scientific evidence, clinical judgment, and patient preferences in physical therapy patient management;
- manage a full-time physical therapist's caseload to achieve resource-efficient and patient-effective outcomes;
- exhibit care, compassion, and empathy in delivering physical therapy services sensitive to individual, cultural, and social differences; and
- implement a self-directed plan for professional development and lifelong learning.



The physical therapy program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE).

List all of the program's learning outcomes: (regardless of whether or not they are being assessed this year)

Learning Outcome	Year of Last Assessment	Assessed This Year	Year of Next Planned Assessment
 function independently managing patients with a wide variety of simple or complex conditions; 	2011-12	х	
2. perform skilled physical therapist examinations, interventions, and clinical reasoning proficiently and consistently	2011-12	х	
3. apply best available scientific evidence, clinical judgment, and patient preferences in physical therapy patient management;	2012-13	х	
 manage a full-time physical therapist's caseload to achieve resource-efficient and patient-effective outcomes; 	2013-14		2016-17
 exhibit care, compassion, and empathy in delivering physical therapy services sensitive to individual, cultural, and social differences; 	2012-13		2016-17
6. implement a self-directed plan for professional development and lifelong learning.	2013-14		2016-17

Describe how the program's outcomes support Marymount's mission, strategic plan, and relevant school plan:

The mission of the Doctor of Physical Therapy (DPT) degree program is to prepare generalist practitioners to deliver best available physical therapist practice for improving movement, function and health across diverse individuals and communities. The program employs a dynamic learning-in-context environment that is warm and welcoming. Critical thinking, professionalism, respecting individual differences, and adherence to ethical practices ground all classroom, clinic, and community activities. The mission of the university states, "Marymount University is comprehensive Catholic university, guided by the traditions of the Religious of the Sacred Heart of Mary, that emphasizes intellectual curiosity, service to others, and a global perspective. A Marymount education is grounded in the liberal arts, promotes career preparation, and provides opportunities for personal and professional growth. A student-centered learning community that values diversity and focuses on the education of the whole person, Marymount guides the intellectual, ethical, and spiritual development of each individual." As the mission indicates that Marymount is committed to career preparation and professional development while focusing on the whole person, the student learning outcomes developed by the PT faculty attempt to show how the DPT program supports this Mission. Not only do our learning outcomes identify the skills



necessary to practice in the career of physical therapy (#1-4), they also measure the moral sensitivity to recognize and understand the diversity of individuals (#5) and professional development (#6).

It is the intent of the PT faculty to ensure that student learning outcomes also take into consideration the strategic plan of the University and of the Malek School of Health Professions. Over the next academic year, the PT faculty will review and reflect on the School's and the University's strategic plan and its relationship to our student learning outcomes.

Provide a brief description of the assessment process used including strengths, challenges and planned improvements and provide evidence of the existence of a culture of continuous improvement based on assessment:

In the spring of 2014, the PT faculty reviewed the two learning outcomes scheduled for assessment during the 2014-2015 academic year and confirmed the methods of assessment most appropriate for these. A strength of our process is all core PT faculty work together during a scheduled faculty meeting to determine the best way to assess the chosen learning outcomes. Since all faculty are present, the entire curriculum and course work can be discussed, ensuring that all potential assessment methods are considered. Challenges the faculty face with assessment are reliance on the students to complete assignments (as they are ungraded) and answer questions thoroughly in their portfolios. More guidelines and expectations have been provided the students for this academic year in regards to the importance/relevance of assignment completion. The faculty will continue to assess the quality of the student generated responses and adjust our assignments accordingly.

Describe how the program implemented its planned improvements from last year:

		Update		
Outcome	Planned Improvement	(Indicate when, where, and how planned improvement		
	Planned improvement	was completed. If planned improvement was not		
		completed, please provide explanation.)		
Manage a full-time physical therapist's	A question regarding students' direct	March 2015 Upon further reflection it was		
caseload to achieve resource-efficient and	perception of managing a full caseload will be	noted that alternating questions based on		
patient-effective outcomes	integrated into PT 802	competency of management of		
		simple/complex patients and students' direct		
		perception of managing a full caseload would		



Artington, virginia	C 1, 11 11	
	The faculty will discuss other assessment	best suit our program's assessment of
	methods to capture student performance on	managing a full time PT's caseload. This
	this outcome.	question was asked in July 2015 and data
		resulted in 100% and 89% of students
		agreeing they were confident in treating
		simple and complex patients respectively.
		We will alternate asking the 2 questions from
		year to year as part of PT 802, in order to
		1 .
		capture data on both concepts helping to
		promote high response rates from students
		and CIs .
		May 2015- Faculty met for end of year
		meetings and decided that this could be
		captured by pass rates of PT 802- Clinical
		Practicum III and items gathered from the
		clinical performance instrument (CPI);
		specifically #7, 9-15
Implement a self-directed plan for	PT 757 would house the student reflection	May 2015 100% of the students completed a
professional development and lifelong	portfolio, which would now be a graded	portfolio which included a professional
learning	activity.	development plan and received passing
icuming .	delivity.	grades.
		graucs.

Provide a response to last year's University Assessment Committee review of the program's learning assessment report:

The comments that were provided last year were appreciated. The overall comment was "This is a very clear, easy to follow but appropriately detailed report." The recommendations were to collect data from employers to determine their perception if graduates are meeting program outcomes, and to ensure the curriculum and assessment are tied closely together for the "exhibit care..." outcome.

Our most recent employer survey received 7 responses (found in Appendix) and 100% of the employers stated that recent graduates of the program were meeting expectations for our identified learning outcomes. One employer noted one item "communicating with other health care providers effectively" was below expectations, and while the program will continue to improve this aspect, it is not included as one of our student learning outcomes. The "exhibit care..." outcome is currently being assessed using a new form accompanying the Costa Rica clinical experience, which now has an interpersonal skills behavior performance standard which



includes "interacting effectively in a culturally aware manner" (found in Appendix). We additionally also collect data from the CPI for this outcome, specifically student performance on criteria #2 demonstrates professional behavior in all situations, #4 communicates in ways that are congruent with situational needs and #5 Adapts delivery of physical services with consideration for patient's differences, values, preferences and needs. These outcomes will be assessed in AY 2016-17.

Outcomes and Past Assessment
Learning Outcome 1: function independently managing patients with a wide variety of simple or complex conditions
Is this outcome being reexamined? 🔀 Yes 🗌 No If yes, give a brief summary of previous results (including trends) and any changes made to the program.

In AY 2011-2012, this outcome was assessed. PT faculty decided to focus on student performance on the comprehensive exam, and student reports of types of patients seen and treated while in the clinic.

In 2012 the following were noted as areas for continued improvement and implementation into the program.

- 1. A new comprehensive practical examination is being developed to better assess our students hands-on skills in managing a wide variety of patient conditions.
- 2. The student portfolio will continue to be examined as a source of student data to assess their ability to function as an entry-level physical therapist.
- 3. The Clinic Log will be revised
- 4. The faculty will reflect on why students did not consistently complete the assignments asked of them during their final clinical practicum and implement new strategies to improve compliance.

Currently, the PT program has implemented the comprehensive practical exam and has been collecting data for 3 years. Additionally a formal student portfolio has been established and sits within a course (PT 757) and is a graded event. Students create their e portfolio in year one of the program and continue to add and update the document until their final clinical rotation. It has been well received by the students and is a manageable and meaningful repository of information for the faculty. The portfolio enables students and faculty to examine and reflect upon several learning outcomes related to the mission of the University and to the School of Health Professions. Since 2012 the clinic log has been revised twice and since has been removed. With significant



thoughtful analysis and reflection the PT faculty posed better questions to the students which captured this data, these questions were submitted electronically and entered into individual student portfolios. Analysis of these new questions enabled us to see if changes we made in the program were effective in improving student learning. Faculty also improved the assignment completion rate, through the use of portfolios and the improved ease of faculty reading and providing feedback to entries. Likewise, the students better understand the expectations associated with clinical rotations and have been consistently completing assigned tasks.

Assessment method #1

The faculty chose to focus on both clinic and classroom performance and self-report from students and their clinical instructors (CIs) to help us assess this outcome. Managing complex patients is a part of the capstone activity (final practical comprehensive exam), the 3 clinical rotations (PT 800, 801 and 802) and the optional Costa Rica clinical experience. In all of the courses listed above, the students are expected to appropriately manage patients with a range of diagnoses. The focus of the comprehensive practical exam is to develop expert clinical practice standards in our students, with one of the goals being the recognition and successful management of complex patients. The final comprehensive practical examination is a required event for all students in the last semester of the program. The exam is formatted where a mock patient was created in each of the major clinical areas (Orthopedics, Neurorehabilitation and Acute Care). Students were required to randomly select a patient case, prepare and perform an evaluation of that case and demonstrate an initial treatment session based on the responses elicited through the evaluation. Two faculty members acted in tandem, one as the mock patient and the other as an examiner. The mock patient responded to the student's questions with appropriate signs and symptoms responses designed to lead the student towards a definitive diagnosis and a potential plan of care. The other faculty member acted as the external examiner questioning the student along the way to ascertain their clinical thinking process and ensuring that they understood the value of the activities they were demonstrating. Despite their distinct roles in the evaluation, both faculty members contributed to the final assessment of the student performance, one through how the performance looked and the other through how the performance felt. At the completion of the evaluation and treatment, students were required to complete appropriate documentation on the mock patient they had just worked with. This documentation was incorporated into the final determination of success or failure of the examination. Each student examination was videotaped for later review and to allow unsuccessful students to review their performance and learn from their errors. Each student was evaluated using a standardized rubric during the examination (see Appendix). Each session was video-taped to allow for additional review by faculty initially and subsequently by the unsuccessful student to clearly identify unsuccessful performance. By filming each session, additional faculty, especially subject experts, were able to review the session after the fact to determine if the performance was acceptable or not. Unsuccessful students reviewed their performance and discussed their performance with the faculty examiners prior to retaking the examination.



Outcome Measures Explain how student learning will be measured and indicate whether it is direct or indirect.	Performance Standard Define and explain acceptable level of student performance.	Data Collection Discuss the data collected and student population	Analysis 1) Describe the analysis process. 2) Present the findings of the analysis including the numbers participating and deemed acceptable.
Direct: Performance on final practical examination	100% of students will pass the practical exam	Scores, faculty comments and video recordings of practical exam are analyzed for all 3 rd year students.	Statistics are employed to identify trends, strengths and weaknesses within the exam. All 36 students passed the practical exam. 32 students passed on their first attempt, while 4 students required re-takes. Those 4 students discussed their grades with faculty and closely reviewed the video of their performance.

Assessment method #2

The student and their CI are asked to comment on the complexity of patient case load seen during clinical rotations. Students and Cis were asked to rate themselves according to a 5 point Likert scale ranging from strongly disagree to strongly agree on the following prompts:

1) The student is able to manage patients with a variety of simple conditions and 2) The student is able to manage patients with a variety of complex conditions. (complex patients are defined as having active problems involving 2-3 body systems or regions and/or multifaceted psychosocial needs).

Assessment Activity

Explain how student learning will be measured and	erformance Standard Define and explain eptable level of student performance.	Data Collection Discuss the data collected and student population	Analysis 1) Describe the analysis process. 2) Present the findings of the analysis including the numbers participating and deemed acceptable.
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Indirect: Response to statement " ability to manage simple and complex patients"	100% of the students will "agree" with the statement	Scores are analyzed for all 3 rd year students who responded	Responses were collected, analyzed, and aggregated as total frequencies. Of the 36 students who responded 100% agreed/strongly agreed with SIMPLE patients. 89 % agreed/strongly agreed to treatment of COMPLEX patients; 4 were neutral
Indirect: Response to statement " ability to manage simple and complex patients"	100% of CIs will "agree"	Scores are analyzed for all responses received from CIs	Responses were collected, analyzed, and aggregated as total frequencies. Of the 14 CIs who responded 93% agreed/strongly agreed with SIMPLE patients, with 7% responding neutral. 93 % agreed/strongly agreed to treatment of COMPLEX patients; while 7% disagreed

Interpretation of Results

Extent this learning outcome has been achieved by students:

Our assessment shows that by the culmination of the final clinical placement, immediately prior to the graduate entering the workforce, 100% of the students were independently managing patients with a wide variety of simple conditions. The competency for complex patients was slightly lower at 93%.

Program strengths and opportunities for improvement relative to assessment of outcome:

Upon analysis of both the practical exam footage/grading sheets and comments submitted on the form for "... management of simple and complex patients" several areas where students struggled were identified. The most frequently cited problems were: Time management, ability to manage multiple diagnoses, and understanding how much to push a complex patient during PT. The faculty met to discuss these areas and plans to improve coverage within the curriculum were discussed with plans for implementation in AY 2015-16.

Discuss planned curricular or program improvements for this year based on assessment of outcome:



- 1. All Practical exams in the program will have strict time constraints to assist with time management
- 2. PT 745 Clinical Practice synthesis will implement an assignment related to designing a plan of care for a complex patient with multiple diagnoses.

Outcomes and Past Assessment					
Learning Outcome 2: perform skilled physical therapist examinations, interventions, and clinical reasoning proficiently and consistently					
Is this outcome being reexamined? $oxtimes$ Yes $oxtimes$ No If yes, give a brief summary of previous results (including trends) and any changes made to the program.					

It was noted in 2012 that a small percentage of students and CIs rated graduating students as below entry-level, i.e., 'advanced-intermediate' in some criteria outlined in the Clinic Performance Instrument (CPI). Faculty met and reflected upon the realization that students judge their own performance more critically, and aspire to perform at the level demonstrated by their clinical instructor. Students compare their behavior to someone with many years of experience compared to their own novice experiences. Despite this, faculty were motivated to implement changes in the curriculum to improve critical thinking as it relates to patient care, which would impact several of the domains on the CPI. Specifically, three changes were made:

- 1. Clinical reasoning theory (discussions and assignments) was integrated into PT 744 Case Report I (Fall offering.)
- 2. The pediatrics course was separated from PT 740-741 (Eval and Mgnt in Neurorehab) into a course that focuses on clinical reasoning and decision-making in pediatrics.
- 3. PT 733 Evidence-based Clinical Practice II: Applying Evidence in the Clinical Environment was modified into a course that not only focuses on the use of evidence based practice principles but also on clinical reasoning and decision-making.



These changes have been positive in terms of student performance on exams and in student feedback forms to instructors. These specific curricular changes were not assessed individually, but rather their impact on students' ability to employ critical thinking to perform skilled examinations and treatments in the field of physical therapy. Faculty decided performance on the final clinical rotation would be the best indicator that these skills and concepts were acquired.

Assessment Method #1:

Clinical Performance Instrument (CPI-Web) -

The *CPI-Web* is the primary student evaluation instrument used to quantify student performance in the clinical environment against entry-level expectations of a licensed physical therapist. This proprietary tool was developed by the American Physical Therapy Association. It underwent extensive psychometric analyses of content throughout its development. The majority of physical therapy academic programs in the United States and Canada use this tool to assess student outcomes. The *CPI-Web* contains eighteen (18) distinct evaluative criteria that cross the spectrum of behaviors and actions required of a physical therapist in clinical practice. Each person inputting data into a *CPI-Web* tool must first complete an on-line course and certification examination to confirm basic knowledge and competency using the instrument. Data entered into the *CPI-Web* is immediately accessible to the Program and is easily downloaded for analyses.

The *CPI-Web* is a summative evaluation instrument. Both the student and his or her clinical instructor (CI) input data into the *CPI-Web* at midterm and completion of each clinical practicum experience. Data include Likert rankings and narrative comments. The Likert scale anchors with "beginning" on the left, or low end of the scale, and projects to "beyond *entry-level*" on the upper scale. Entry-level performance, which is positioned just below "beyond-entry-level", is the expected student outcome on each criterion.

This report uses direct measures of CI assessment of student clinical performance. This data was extracted from documented student performance that occurred during final, fulltime clinical practicum experience in August 2015. These students graduated from MU following this clinical practicum. These data are measures of MU-DPT student entry-level performance.

Definition: Entry-Level Performance (CPI-Web)

- Capable of functioning without guidance or clinical supervision managing patients with simple or complex conditions.
- Consistently proficient and skilled in simple and complex tasks for skilled examinations, interventions, and clinical reasoning.
- Consults with others and resolves unfamiliar or ambiguous situations.
- Capable of maintaining 100% of a full-time physical therapist's caseload in a cost effective manner

Definition: Advanced-intermediate Performance (CPI-Web)

• Requires clinical supervision less than 25% of the time managing new patients or patients with complex conditions and is independent managing patients with simple conditions.



- Consistent and proficient in simple tasks and requires only occasional cueing for skilled examinations, interventions, and clinical reasoning.
- The student is capable of maintaining 75% of a full-time physical therapist's caseload.

Limitations of the CPI-Web as an Assessment Tool

Students are supervised throughout their clinical experiences by a clinical instructor (CI) who is not a core faculty member; and each student has a unique clinical instructor. Although the expectation is that the online training program for completing the tool enhances the tool's reliability in making judgments about achieving *entry-level* performance, there is still great variability based on settings and CI philosophy. The definition of *entry-level* is complex and the number of concepts embedded in each of the 18 overarching criterion can be large. If a student is deemed lacking in any aspect of a criterion, he/she will be graded below entry-level performance on all aspects of it, which makes it difficult to tease out specific areas of weakness.

Program faculty continues to support a graduate outcome goal that states: 100% of MU-DPT graduates will be rated *entry-level* in each evaluative criterion in the *CPI-Web* upon completion of their final clinical practicum. This is controversial in the professional community because students do not have the "real" opportunity to practice "without supervision."

CPI-Web Criteria Used for this Student Learning Outcome

CPI-Web Criteria Used in this Report

Criterion (CPI-Web	Definition
Reference #)	
Clinical Reasoning (7)	A systematic process used to assist students and practitioners in inferring or drawing conclusions about
	patient/client care under various situations and conditions.
Examination (9)	A comprehensive and specific testing process performed by a physical therapist that leads to diagnostic
	classification or, as appropriate, to a referral to another practitioner. The examination has three
	components: the patient/client history, the systems reviews, and tests and measures. (Guide to Physical
	Therapist Practice. Rev 2nd Ed. Alexandria, VA: American Physical Therapy Association; 2003.)
Evaluation (10)	A dynamic process in which the physical therapist makes clinical judgments based on data gathered during
	the examination. No defined number or range of number of visits is established for this type of episode.
	(Guide to Physical Therapist Practice. Rev 2nd Ed. Alexandria, VA: American Physical Therapy Association;
	2003.)
Diagnosis and Prognosis	Diagnosis is both a process and a label. The diagnostic process performed by the physical therapist includes
(11)	integrating and evaluating data that are obtained during the examination to describe the patient/client



Criterion (CPI-Web	Definition					
Reference #)						
	condition in terms that will guide the prognosis, the plan of care, and intervention strategies. Physical					
	therapists use diagnostic labels that identify the impact of a condition on function at the level of the syst					
	(especially the movement system) and at the level of the whole person. (Guide to Physical Therapist Practice					
	Rev 2nd Ed. Alexandria, VA: American Physical Therapy Association; 2003.)					
	Prognosis is the determination by the physical therapist of the predicted optimal level of improvement in					
	function and the amount of time needed to reach that level. (Guide to Physical Therapist Practice. Rev 2nd					
	Ed. Alexandria, VA: American Physical Therapy Association; 2003.)					
Plan of Care (12)	Statements that specify the anticipated goals and the expected outcomes, predicted level of optimal					
	improvement, specific interventions to be used, and proposed duration and frequency of the interve					
	that are required to reach the goals and outcomes. The plan of care includes the anticipated discharge plans.					
	(<i>Guide to Physical Therapist Practice</i> . Rev 2nd Ed. Alexandria, VA: American Physical Therapy Association; 2003.)					
Procedural Interventions	The purposeful interaction of the physical therapist with the patient/client, and, when appropriate, with					
(13) and Educational	other individuals involved in patient/client care, using various physical therapy procedures and techniques to					
Interventions (14)	produce changes in the condition. (Guide to Physical Therapist Practice. Rev 2nd Ed. Alexandria, VA:					
	American Physical Therapy Association; 2003.)					
Documentation (15)	All written forms of communication provided related to the delivery of patient care, to include written					
	correspondence, electronic record keeping, and word processing.					



Assessment Activity

Indirect Outcome Measures	Performance Standard	Data Collection	<u>Analysis</u>		
			Advanced- intermediate (f)	Entry-Level (f)	Beyond Entry-Level (f)
Examination (9)	100% of students will rate themselves as entry	Data source: <i>CPI-Web</i> student self-	7	25	1
Evaluation (10)	level on <i>CPI-Web</i> criteria 9, 10, 11, 12, 13, 14, 15,	, performance	8	25	0
Diagnosis/Prognosis (11)	and 7 at the completion of the third and final clinical internship.		10	23	0
Interventions: Procedural (12)			4	29	0
Interventions: Educational (13)			6	26	1
Plan of Care (14)			6	27	0
Documentation (15)		file)	5	28	0
Clinical Reasoning (7)			6	27	0



Direct Outcome Measures	Performance Standard	Data Collection	Analysis		
			Advanced- intermediate (f)	Entry-Level (f)	Beyond Entry- Level (f)
Examination (9)	100% of students will be rated "entry-level" by their	Data source: <i>CPI- Web</i> CI evaluation of	1	31	1
Evaluation (10)	Clinical instructors on criterion CPI items 9, 10,	student performance Student population:	2	30	1
Diagnosis/Prognosis (11)	11, 12, 13, 14, 15, and 7 at the completion of the third	DPT Class of 2015; one data point	1	31	1
Interventions: Procedural (12)	and final clinical internship.	unable to be extracted corrupted	1	28	4
Interventions: Educational (13)		file August 2015 graduates	0	30	3
Plan of Care (14)		N= 34 Students/Graduates	2	31	0
Documentation (15)			1	30	0
Clinical Reasoning (7)			3	28	2



Interpretation of Results-

Extent this learning outcome has been achieved by students (Use both direct and indirect measure results):

At completion of the MU-DPT program, approximately 91-97% of graduates were judged by their clinical instructor (CI) as entry-level with respect to performing clinical reasoning, examination, evaluation, and developing and implementing a plan of care. Another 3-12% was rated beyond entry-level. Only 3-6% was evaluated below entry-level, i.e., 'advanced-intermediate' in these same criteria.

Students judge their own performance more critically. Seventy to eighty-eight% evaluate themselves as entry-level in clinical reasoning, examination, evaluation, and developing and implementing a plan of care, whereas 12-30% rate themselves as advanced-intermediate.

The performance standard, i.e., 100% performance at entry-level was not met according to these data collected from evaluations of student performance submitted by clinical instructors and student self-assessments. Given the complexity of behaviors constructed from the evaluative criteria for this measurement, it is perhaps unrealistic to set an outcome expectation equal to 100 percent. Our numbers have continued to improve since our last assessment in 2012, in both "entry level" and "beyond entry level" numbers. The students continue to rate themselves lowest in the "diagnosis and prognosis" domain; our program will continue to employ strategies to improve student comfort level in this category.

Program strengths and opportunities for improvement relative to assessment of outcome:

<u>Program Strengths.</u> All students are performing at, or above the 'advanced-intermediate' level on this multifaceted and complex set of criteria, and the majority is performing at entry-level, or 'beyond entry-level.' The qualitative comments submitted in the *CPI-Web* provided by the CIs strongly support the rankings assigned to the students.

<u>Areas for Improvement.</u> Clinical reasoning remains an area for further investigation. Several curricular changes were made in course sequencing and organization to improve student outcomes in the area of clinical reasoning. Faculty are working to expose students to clinical reasoning earlier in the curriculum so that it becomes an ingrained cognitive skill that can be expanded and honed as the students progress through the program

Discuss planned curricular or program improvements for this year based on assessment of outcome:

- 1. Faculty will participate in several meetings discussing the early implementation of clinical reasoning to the curriculum.
- 2. PT 701 andd associated tutorials (First semester Fall) will employ course activities that focus on clinical reasoning



Outcomes and Past Assessment

earning Outcome 3: apply best available scientific evidence, clinical judgment, and patient preferences in physical therapy patient anagement
this outcome being reexamined?
yes, give a brief summary of previous results (including trends) and any changes made to the program.
This outcome was last assessed in 2013, where it was noted that students were exhibiting this learning outcome in both writing

This outcome was last assessed in 2013, where it was noted that students were exhibiting this learning outcome in both writing assignments and practical skills based examinations. The level of mastery and frequency with which students were completing this skill – specifically the domain "best available scientific evidence" was still a concern of faculty. Several class assignments were altered in PT 712 (Critical Assessment of Information) and in PT 723 (Research Principles and Design) to focus on real patient scenarios that the students brought back from the physical therapy clinics where they were placed in that semester. The course assignments improved links between the three cornerstones of physical therapy practice (measured in this outcome) with a greater understanding of how physical therapists' think and use information. This was evidenced through improved student performance on their patient case reports- the capstone project in our program. This outcome was also measured using the evaluation of student performance during a clinical practicum in Costa Rica. Unlike other clinical practicums where the Clinical Instructors evaluate students, this experience provides a unique opportunity for our core faculty to observe and assess our students in the practical setting. Faculty continue to reflect on best methods to integrate evidence and patient preferences into the curriculum through patient cases, research discussion, and practical experiences within specific patient management courses.

Assessment Method #1

During the spring semester of the third year of the DPT program, students participated in the PT 803, Clinical case reports. The three concepts that make up this learning outcome: 1) apply best evidence, 2) apply clinical judgment, and 3) apply patient preferences are the cornerstones of evidence-based practice (EBP). PT 803 required students to utilize all three concepts in a written assignment that documents their decision-making throughout the management of an individual patient (see Appendix for a copy of the course objectives and assignment rubric). In the assignment, students address different factors that affect management of a unique 'paper patient' who has many medical, personal, and environmental factors complicating decision-making about their prognosis and plan of care. These were examined against a grading rubric to judge the domain as excellent, acceptable, or unacceptable.



Assessment Activity

Direct Outcome Measure	Performance Standard	Data Collection	<u>Analysis</u>
Direct measure #1: Final assignment in PT 803 (see above for explanation of assignment). The three concepts/categories for assessment are: 1. applying best evidence 2. using clinical judgment 3. incorporating patient preferences	90% of students will score at or above the acceptable level. The standards for what is considered acceptable and above are listed below with a more detailed description of the data/analysis.	Data was collected and aggregated from spring 2015 final written assignment.	See the table below with the results for each category/concept. For applying best evidence, 100% of the students were at or above acceptable. For using clinical judgment, 100% of the students were at or above acceptable. For incorporating patient preferences, 100% of the students were at or above acceptable.

Summary of Responses in Each Category

Category	Excellent	Acceptable	Not acceptable
	(90-100)	(80-89)	(Below 80)
 Applying best evidence 	34	0	0
2. Use clinical judgment	34	0	0
3. Incorporating patient preferences	34	0	0

Concept 1: 'Apply Best Available Evidence'

This assessment is based the concept "clinical reasoning" that was part of the final assignment. The description for this domain includes:

- Clearly identifies Clinical Impressions and underlying rationale for decision-making process
- Concisely reviews relevant literature: examines related work and existing theory, and supports methods used
- Analyzing problem(s) & providing hypothesis(ses) of cause
- Providing Evaluation (clinical judgments) based on Exam data
- Establishing PT Diagnosis and Prognosis (including Plan of Care)



Excellent: Included Decision-making analysis of the problem and initial hypotheses is explained clearly, accurately, and fully. Logic leading to the stated PT diagnosis is provided and justified; and stated in *Guide to Practice* terms,

Intervention is clearly and completely explained and justified based on a valid reasoning process **Acceptable:** One of the components does not meet the criteria stated under "excellent"

Unacceptable: Significant flaws in two or more components level.

Concept 2: Using Clinical Judgment

Based on course information, clinical judgment involves analysis and synthesis of patient information (medical, personal, environmental) to make a thoughtful and realistic judgment about expected changes in physical functioning; and, ideally, the ability of PT to influence this outcome. The description of this concept was outlined in the rubric as follows:

- Reflect back on initial impressions, anticipated outcomes, and actual outcomes.
- Link outcomes and observations back to purpose.
- Explains hunches Clinical Impressions.
- Offers alternative explanations
- Avoids implying cause & effect
- Relates this case outcome with other relevant reports in the literature
- Gives suggestions for future research (i.e., Where do we go from here?)

Excellent: All components present, realistic, and are clearly and convincingly conveyed to reader

Acceptable: All components present, but 1-2 components are not clearly conveyed

Unacceptable: One or two components missing, and/or three or more components poorly conveyed to reader



Concept 3: Considering Patient Preferences

- This assessment is based on the review of the following items :
- Establishes goals that are patient-centered and consistent with patient preferences and prognosis

• Describes proposed *Intervention*, Describes rationale for proposed intervention?"

The following served as the grading rubric guidelines:

Excellent: Overtly identifies patient preferences and objectives for the PT visit and indicates that patient preferences are a

significant factor in driving patient management decisions

Acceptable: Discusses factors generally viewed as patient preferences, motivations, or goals and but does not link to this specific

patient's management

Not acceptable: Does not address patient preferences, motivation, or goals

Assessment Method #2:

This year 34 of 36 students participated in the Costa Rica experience (94.4%). This mission trip is an optional 2 week clinical experience added-on to PT 801 (Clinical Practicum II) which lasts 8 weeks (NB: those students opting out of the Costa Rica trip spend 10 weeks in PT 801). Students were evaluated by core faculty on several practical skills and behavioral components, and rated on a 5 point Likert scale as exhibiting those attributes never, rarely, sometimes, frequently or always. A copy of the performance measure can be found in the Appendix. Although not specifically listed as "apply best evidence available, considering patient preferences, and using clinical judgement" the evaluation tool we used captures all of these items. The areas from which we collected data on this form were: Interpersonal skills, Commitment to learning, Communication, Problem solving, and Critical thinking.

Assessment Activity

Direct Outcome Measure	Performance Standard	Data Collection	<u>Analysis</u>
Direct measure #2	90% of students will score at	Data was collected,	100% of the students were
Evaluation of student	or above the acceptable level	analyzed and aggregated	performing outlined skills and
performance form used for	(identified by scoring 4/5 on	from spring 2015 student	behaviors at least "frequently"
Costa Rica Experience	the Likert scale).	evaluation forms.	specifically in the areas of



Direct Outcome Measure	Performance Standard	Data Collection	<u>Analysis</u>
			Interpersonal skills, Commitment to learning, Communication, Problem solving, and Critical thinking.

Extent this learning outcome has been achieved by students

The responses are summarized in the case reports table; 100% of scores were either excellent or acceptable for all three concept areas. This exceeds the expectation that at least 90% of student responses should be at least at the 'acceptable'. Similarly, 100% of those who participated in the Costa Rica trip performed at entry-level, or higher across variables that make up the constructs: apply best available scientific evidence, clinical judgment, and patient preferences in physical therapy patient management.

The direct measures indicate that the students are, overall, applying best evidence, clinical judgment, and patient preferences to successfully and effectively treat patients. The faculty attempted to capture this information through a written assignment using a real patient scenario. The student met our threshold for success. The reflection required by students to apply these skills in the case report assignment helps them to integrate these skills into patient care. This assignment occurs in the Spring of the third year, in preparation for their third clinical rotation. We believe this activity reinforces the mindset required to function independently as a physical therapist, which is the ultimate goal of the third clinical rotation, and of our program.

Program strengths and opportunities for improvement <u>relative to assessment of outcome</u>:

<u>Program strengths:</u> The students are meeting these objectives in the capstone case report, and through practical course work which seems to aid with success in the clinical rotations (see student learning outcome #2) and also pass rates (100%) for the physical therapy board exam.



Areas for improvements: Going forward, the program would like to measure these constructs in the practical setting. Although we surpassed our target of 90% of students through as assessed by the case report, we believe there may still be problem areas. For example, the case report measures using evidence, patient preferences and clinical judgment in one patient, we would like to try to assess these skills across a broader patient population. An appropriate place to measure these would be in both our global education course (PT 801) and also in the final comprehensive practical. Using these methods will enable faculty to assess these objectives in a setting where patient care and service to others is the main focus. By assessing students in direct (or simulated) patient care, we believe it will ultimately better reinforce these skills in students and our outcomes will have a stronger result.

Discuss planned curricular or program improvements for this year based on assessment of outcome:

- 1) Utilize and collect data using new evaluation form during Costa Rica trip for both student self assessment and faculty assessment of student performance
- 2) Devise questions on the final comprehensive practical exam that evaluate this concept.



Appendices

Marymount University Physical Therapy Program

One Year Post-Graduation Survey

Given the categories below, please indicate how well the Marymount graduate in your organization meets your expectations in the following areas:

OVERALL	Below	Meets	Above
	Expectations	Expectations	Expectations
Managing patients with simple and			
complex health conditions independently			
Seeking out and incorporating new			
knowledge into patient care decisions			
Critical reasoning and problem solving			
Using his/her time and resources effectively			
Managing a full-time patient case load			
Communicating with patients & caregivers effectively			
Communicating with other health care providers effectively			
Adhering to legal practice standards			
Adhering to ethical practice standards			



Producing timely and accurate	
documentation	
Applying patient preferences into patient	
care decisions	
Exhibiting compassion in delivering	
physical therapy services that are	
sensitive to individual and cultural	
differences	
Implementing a self-directed plan for	
professional development	
Demonstrating professional/social	
responsibilities beyond work	
expectations	

PATIENT/CLIENT MANAGEMENT	Below	Meets	Above
	Expectations	Expectations	Expectations
Establishing a differential diagnosis			
Determining patient prognosis			
Establishing goals and functional			
outcomes			
Establishing a plan of care			
Promoting optimal health			



Performing patient screening to assess the need for physical therapy		
Performing therapeutic exercise		
Performing manual therapy		
Performing patient education		

In what areas do you feel the Marymount graduate is particularly well prepared?

In what areas could the DPT Program at Marymount have better prepared your employee?

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS SURVEY!

PLEASE RETURN BY MAIL TO:

MARYMOUNT UNIVERSITY
DEPARTMENT OF PHYSICAL THERAPY
2807 N. GLEBE ROAD
ARLINGTON, VA 22207-4299



Marymount University Clinical Practicum II-Community Engagement/ Mission Experience

Evaluation of Student Performance¹

Student First Name		Student Last Name	
Facility: Costa Dica	Detec: February 21 Merch 7, 2015		

5=Always

Facility: Costa Rica Dates: February 21-March 7, 2015

2=Rarely

Clinical Instructor: Diana Venskus, PT, PhD; Jason Craig, PT, PhD; Pamela Diener, OT, PhD, Jody Gundrum, PT, PhD, Lisa

DePasquale, PT, DSC, ECS

1=Never

Instructions: Use the rating scale below to rate your performance in each of the listed behaviors/descriptors.

3=Sometimes

Rating Scale: 4=Frequently Behavior Accepts that there may be more than one answer to a problem; Recognizes the **Commitment to Learning** – Selfneed to and is able to verify solutions to problems directs learning Respectfully questions conventional wisdom; Formulates and re-evaluates position based on available evidence **Interpersonal Skills** –Interacts Seeks to gain input from others; Respects role of others Recognizes the impact of non-verbal communication and emotional responses effectively in a culturally aware during interactions and modifies own behaviors based on them; Responds manner. effectively to unexpected situations Recognizes the impact that non-verbal communication and the emotions of self and others have during interactions and demonstrates the ability to modify the behaviors of self and others during the interaction **Professionalism** –Exhibits Identifies when the input of classmates, co-workers and other healthcare professionals will result in optimal outcome and acts accordingly to attain such appropriate professional conduct input and share decision making; Acts on moral commitment during all academic and clinical activities Demonstrates leadership in collaboration with both individuals and groups; Provides patient/family centered care at all times Pursues leadership roles; Participates in program development Restates, reflects and clarifies message(s); Communicates collaboratively with both individuals and groups Maintains open and constructive communication

¹ Adapted from: May, W., Kontney, L. and Iglarsh, A. (2009) *Professional Behaviors for the 21st Century*. University of Wisconsin-Madison.



Behavior	Descriptor	1	2	3	4	5
Communication - Communicates effectively (i.e. verbal, non-verbal, reading, writing, and listening)	Adapts messages to address needs, expectations, and prior knowledge of the audience to maximize learning; Mediates conflict					
Critical Thinking - Questions logically; utilizes, analyzes, and	Utilizes didactic knowledge, research evidence, and clinical experience to formulate new idea; Acknowledges presence of contradictions					
critically evaluates scientific evidence	Distinguishes relevant from irrelevant patient data; Exhibits openness to contradictory ideas					
	Distinguishes when to think intuitively vs. analytically; Recognizes own biases and suspends judgmental thinking					
Problem Solving – Recognizes and defines problems, analyzes data,	Prioritizes problems; Identifies contributors to problems; Appropriately seeks input or guidance					
develops and implements solutions, and evaluates outcomes.	Independently locates, prioritizes and uses resources to solve problems; Accepts responsibility for implementing solutions					
	Weighs advantages and disadvantages of a solution to a problem; Considers second and third order effects of solutions chosen					
Effective Use of Time and Resources –Manages time and	Utilizes effective methods of searching for evidence for practice decisions; Recognizes own resource contributions					
resources effectively to obtain the maximum possible benefit.	Collaborates with members of the team to maximize the impact of treatment available; Gathers data and effectively interprets and assimilates the data to determine plan of care					
	Organizes and prioritizes effectively; Prioritizes multiple demands and situations that arise on a given day					
Responsibility – Is accountable for the outcomes of personal and	Displays awareness of and sensitivity to diverse populations; Completes projects without prompting					
professional actions and to follow through on commitments.	Accepts responsibility for implementing solutions; Demonstrates accountability for all decisions and behaviors in academic and clinical settings					
	Encourages and displays leadership					
Use of Constructive Feedback – The ability to seek out and identify quality	Critiques own performance accurately; Responds effectively to constructive feedback					
sources of feedback, reflect on and integrate the feedback, and provide meaningful feedback to others	Readily integrates feedback provided from a variety of sources to improve skills, knowledge and abilities; Independently engages in a continual process of self-evaluation of skills, knowledge and abilities					
	Engages in non-judgmental, constructive problem-solving discussions					
Stress Management – The ability to identify sources of stress and to develop	Actively employs stress management techniques					
and implement effective coping	Demonstrates appropriate affective responses in all situations					
behaviors.	Assists others in recognizing and managing stressors					



PT 803 Clinical Case Reports

COURSE OBJECTIVES

The student will:

- 1. Choose and justify a patient for a case report.
- 2. Specify a clinical question based on patient presentation.
- 3. Analyze and synthesize the relevant professional literature to produce a substantive literature review pertinent to the proposed research question for development in a case report.
- 4. Establish patient goals based upon physical therapist professional judgment with support from relevant literature, supervising physical therapist, and inclusion of patient preferences and motivations.
- 5. Present and defend the clinical decision-making paradigm used to address the clinical question for the case report.
- 6. Identify and construct clear operational definitions for all variables.
- 7. Select clinical outcome measures appropriate to the clinical question and justify the use of each outcome measure (including discussion of psychometric properties of each tool).
- 8. Name and link specific interventions to the established goals.
- 9. Clearly document patient progress related to the established goals and directed toward answering the clinic question.
- 10. Using the *Guidelines for Submitting Case Reports to PTJ*, produce a written reflective case report that presents and discusses the relevance of the findings to physical therapist practice.
- 11. Include in the case report, graphs and tables that clearly illustrate examination, intervention and outcome data.
- 12. Prepare oral and/or poster presentations reflecting the most significant information in the case report.
- 13. Present the case report in an educational and/or professional public forum.



PT 803 Case Report Rubric

Case Report Rubric	4	3	2	1	Total
 Abstract Problem under investigation clearly stated Bold headings include: Background and Purpose, Case Description, Outcomes, and Discussion. 	 includes all components, and overview of the case is clear and thorough, and ≤ 350 words 	 includes all components, and overview of the case is clear and thorough, but over 350 words 	 One or two components missing, or overview of the case is unclear or incomplete, or over 350 words 	 Three or more components missing, or overview of the case cannot be discerned from the abstract 	
 Background and Purpose Introduces the topic and relays importance of topic/rationale Concisely reviews relevant literature: examines related work and existing theory, and supports methods used Includes an explicit purpose statement Defines which of the 7 case report types it will follow Identifies and defends clinical reasoning model to be followed. 	 All components present, and literature review conveys importance of the case and all aspects of case methods Clearly identifies and effectively defends reasoning model 	 All components present, but Literature review does not cover importance of the case or all aspects of case methods Identifies clinical reasoning model. Little or no defense of model 	 One or two components missing, and/or Literature review does not convey importance of case or numerous aspects of case methods Clinical reasoning model absent 	 Three or more components missing, or Does not discuss importance of the topic or assist the reader in understanding case methods Clinical reasoning model absent 	
 Case Description Describes subject/case (McEwen, p.64) Describes methods for <i>Examination</i> (history¹, systems review, tests & measures) Reports reliability and validity of instrumentation² 	 Includes all components, and Thorough description allows duplication of methods, and Choice of examination tests and measures clearly explained, procedures completely described, and 	 Includes all components, and Thorough description allows duplication of methods, but One of the components does not meet the criteria stated under "4" 	 One or two components missing, or Incomplete description prevents duplication of methods, and One of the components does not meet the criteria stated under "4" 	 Three or more components missing, or Two or more of the components do not meet the criteria stated under "4" 	



	,				
Clinical Reasoning Process Clearly identifies Clinical Impressions and underlying rationale for decision-making process including: Analyzing problem(s) & providing hypothesis(ses) of cause Providing Evaluation (clinical judgments) based on Exam data Establishing PT Diagnosis and Prognosis (including Plan of Care) Establishes goals that are patient-centered and consistent with patient preferences and prognosis Describes proposed Intervention ³ Describes rationale for proposed intervention	Decision-making analysis of the problem and initial hypotheses is explained clearly, accurately, and fully. Logic leading to the stated PT diagnosis is provided and justified; and stated in <i>Guide to Practice</i> terms, Intervention is clearly and completely explained and justified based on a valid reasoning process.	• One of the components does not meet the criteria stated under "4"	One or two components missing, or Decision making process is not clearly described, and One of the components does not meet the criteria stated under "4"	 Three or more components missing, or Two or more of the components do not meet the criteria stated under "4" 	Total
Outcomes • States results/outcome of intervention and impact on impairments, activity limitations, & participation restrictions • Includes subjective & objective data • Identifies effect of treatment on patient agreed goals	 Includes all components, and Objective measurements are linked to measurement of subject's self-perceived disability and external factors, and Measurements are reported for the intervention period, for the end of the 	 Includes all components, but One of the components does not meet the criteria stated under "4" 	 One or Two components missing, and One of the components does not meet the criteria stated under "4" 	 Three or more components missing, and More than one of the components does not meet the criteria stated under "4" 	



	intervention period and for a follow-up period				
Case Report Rubric	4	3	2	1	Total
 Reflect back on initial impressions, anticipated outcomes, and actual outcomes. Link outcomes and observations back to purpose. Explains hunches – Clinical Impressions. Offers alternative explanations Avoids implying cause & effect⁵ Relates this case outcome with other relevant reports in the literature Gives suggestions for future research (i.e., Where do we go from here?) 	All components present, realistic, and are clearly and convincingly conveyed to reader.	All components present, but 1-2 components are not clearly conveyed	One or two components missing, and/or three or more components poorly conveyed to reader	More than three components missing, or inappropriate information in this section	
Format • Format adheres to the <i>Information for Authors</i> published by <i>PHYSICAL THERAPY</i> , with the exception of word limit (≤6000 words vs. PTJ suggested 3500) • Includes a clear/concise title that completely reflects case content • Includes citations & references in American Medical Association (AMA) format • Meets deadline	 Completely adheres to all formatting requirements for paper and references, and Meets deadline, and Includes representative and clear title 	 Completely adheres to format, but One of the components listed under "4" is less than optimal 	 Does not adhere to format, and One of the components listed under "4" is less than optimal 	 Does not adhere to format, and Two of the components listed under "4" is less than optimal 	



Arlington, Virginia

 Tables/Figures Have appropriate titles Have adequate legends Are readable/augment data presented Adheres to format <i>Information for Authors</i> published by <i>PHYSICAL THERAPY</i> 	Completely adheres to format	 Completely adheres to format, <i>but</i> Titles or legend or data is less than optimal presentation 	 Does not adhere to format, and Titles or legend or data is less than optimal presentation 	 Does not adhere to format, and Titles and legend and data are less than optimal presentation 	
Case Report Rubric	4	3	2	1	Total
 Style Use of proper grammar & correct spelling Use of "people first" language Includes clear organization & paragraph structure 	 Sentence structure and language are clear and concise, and No more than 2 spelling and/or grammar errors, and No direct quotations of others' works 	• Sentence structure and language are occasionally unclear or not concise, or 3-5 spelling and/or grammar errors, or direct quotations of others' works used	 Does not adhere to format, and Sentence structure and language are confusing, or, 6-10 spelling and/or grammar errors, or direct quotations of others' works used 	 Does not adhere to format, and Sentence structure and language are so unclear that reader cannot determine major ideas and topics, or 11 or more spelling and/or grammar errors 	

TOTAL SCORE	TOTAL	SCORE	
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Grading Scale: 32.5-36

32.5-36 A 29-32.4 B

<28 Unacceptable/revise & resubmit with highest grade possible of 80%</p>



FINAL COMPREHENSIVE PRACTICAL EXAM RUBRIC

Paufaumanaa Cuitauia	Behavior Indicators	DACC/EAT
Performance Criteria	Given a written case, the student	PASS/FAIL
Screen	Review of Systems	
	Measures vital signs accurately	
	Adds to available data via selecting and asking relevant	
	systems-based screening questions	
	Invites alternative ideas via asking a well-crafted open-	
	ended final screening question	
Planning	Identifies Red Flags (contraindications, precautions)	
	• Identifies initial hypotheses based on initial data? (areas	
	of focus, key points)	
	Prioritizes subjective interview questions	
	Achieves patient/client consent	
Examination & Evaluation	Tests & Measures	
	 Justifies and prioritizes "best" Tests & Measures 	
	 Accurately administers Tests & Measures 	
	Accurately interprets Examination data	
Diagnosis/Prognosis/Desired	Based on differential discussion, accurately labels the	
Outcomes	principal diagnosis	
	Presents a prognosis grounded by interpretation of	
	data	
	Identifies the desired patient outcome using functional	
	performance language	
	Selects an "optimal" outcome measure	



Artington, virginia		
Intervention	Prioritizes appropriate intervention(s)	
	Effectively carries out the intervention(s)	
	Re-assesses the patient after intervention(s)	
Patient/Client Education	Accurately instructs/educates patient	
and Home Program	Addresses patient/client at appropriate level	
	Uses non-technical language	
	Confirms patient/client understanding	
Safety	Employs safe patient/client handling throughout the	
	entire encounter	
	Attends to the environment to minimize risk of injury	
	to patient/client	
	Note: SAFETY issues identified by faculty in <i>ANY</i> section result in mandatory failure/discontinuation of exam.	
Plan/Discussion/Justification	Concisely and completely documents a note for the PT	
	session within the allotted time.	
	Creates and justifies a plan of care	
	Justifies all components of the practical exam	
	performance	
Documentation	Concisely and completely documents a note for the PT	
	session within the allotted time	

Final Grade: PASS FAIL

Students must PASS all sections of the examination.

Examiners:			