2023

Physical Therapy Clinical Instructor's Viewpoints on Entry-level Performance of Physical Therapy Students and New Graduates

Elhana Selimovie
University of North Dakota

PHYSICAL THERAPY CLINICAL INSTRUCTOR'S VIEWPOINTS ON ENTRY-LEVEL PERFORMANCE OF PHYSICAL THERAPY STUDENTS AND NEW GRADUATES

by

Elhana Selimovic

Bachelor of Science, North Dakota State University, 2019

Karissa Peterson

Bachelor of Science, University of North Dakota, 2014

A Scholarly Project

Submitted to the Graduate Faculty of the

Department of Physical Therapy

School of Medicine and Health Sciences

University of North Dakota

in partial fulfillment of the requirements for the degree of

Doctor of Physical Therapy

Grand Forks, North Dakota

May 2023

This Scholarly Project, submitted by Elhana Selimovic and Karissa Peterson in partial fulfillment of the requirements for the Degree of Doctor of Physical Therapy from the University of North Dakota, has been read by the Advisor and Chairperson of Physical Therapy under whom the work has been done and is hereby approved.

DocuSigned by:
Cindy Flom-Meland
D0E1D60A5EE3422...
(Graduate School Advisor)

DocuSigned by:
Cindy Flom-Meland
D0E1D60A5EE3422...
(Chairperson, Physical Therapy)

PERMISSION

Title Physical Therapist Clinical Instructor's Viewpoints on Entry-Level Performance of Physical Therapy Students and New Graduates

Department Physical Therapy

Degree Doctor of Physical Therapy

In presenting this Scholarly Project in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, we agree that the Department of Physical Therapy shall make it freely available for inspection. We further agree that permission for extensive copying for scholarly purposes may be granted by a professor who supervised my work or, in her absence, by the Chairperson of the department. It is understood that any copying or publication or other use of this Scholarly Project or part thereof for financial gain shall not be allowed without our written permission. It is also understood that due recognition shall be given to me and the University of North Dakota in any scholarly use which may be made of any material of the Scholarly Project.

Signature DocuSigned by: Eliana Selimovic 845D32A155CC423...

Date 12/12/2022

Signature DocuSigned by: Karissa Peterson 13FAAA5BDA304BE...

Date 12/12/2022

TABLE OF CONTENTS

LIST OF TABLES……...……v

ACKNOWLEDGEMENTS……...……..vi

ABSTRACT……..vii

CHAPTER

I. BACKGROUND……...……...…….……...1
II. LITERATURE REVIEW…….....6
III. METHODS…….……...16
IV. RESULTS……...……...……....17

V. DISCUSSION……..…....…..…19

REFERENCES……..……....21

LIST OF TABLES

1. Entry-level Degree Highest Degree Hold…….…..…....17

2. Demographics……...……...…..18

3. Overall “Do You Agree with the Definition of Entry-Level Performance?”…….,…...18

ACKNOWLEDGEMENTS

We would like to acknowledge and thank Cindy Flom-Meland for her guidance and mentorship throughout the process of drafting this study to benefit future research and learning in the physical therapy profession.

ABSTRACT

Purpose: The purpose of this study was to gain perspective on how physical therapy clinical instructors (CI) define entry-level in relation to the field of physical therapy. The research question asked CIs was whether or not there was a difference in how CIs defined entry-level physical therapists. Entry level is defined as "a student who is capable of functioning without guidance or supervision while managing simple or complex conditions, with proficiency in skilled examinations, interventions, and clinical reasoning, and is able to maintain 100% of a full-time therapist's caseload in a cost-effective manner."

Methods: A survey was sent to every clinical instructor who had accepted a physical therapy student from the University of North Dakota since 2018. The link to the survey was sent to 309 clinicians. Informed consent was obtained through the voluntary completion of this survey. The electronic survey was developed by the researchers and was evaluated by an outside clinician to enhance reliability and validity. The survey will contain questions gauging the clinical instructors' perspectives on entry-level therapists' readiness, alongside demographic information such as age, location, setting, etc. Data will be analyzed using SPSS statistics and retained for three years (SPSS).[30]

Results: Of the 76 responses, 67 or 84.2% of respondents stated that they agree with the definition of an entry-level performance and agree upon a 10-12 patient caseload for a full-time Physical Therapist. Those who responded no, which consisted of 12 or 15.8% of respondents, stated they did not agree with the definition or the caseload for an entry-level PT.

Conclusion: Overall, the CPI has been the standard for evaluating a student's readiness to enter the workforce for nearly two decades, serving as a reliable tool for many physical therapists. However, through research and discussion, it is clear that there is an opportunity for improving and better aligning the CPI with the current developments within the field.

CHAPTER I
BACKGROUND

In 2000, the American Physical Therapy Association (APTA) released a vision of achieving a Doctor of Physical Therapy (DPT) status to serve the public by 2020. Initially, physical therapy education consisted of bachelor's degrees in related fields, and post-graduation a certificate in physical therapy was obtained. This program transitioned entry-level bachelor's program, before becoming a Master's degree program. In 1996, Creighton University began the first professional Doctor of Physical Therapy program with the first graduating class of DPTs. From this point on, more physical therapy programs were working towards a transition to the DPT. The Commission on Accreditation in Physical Therapy Education (CAPTE) required all accredited physical therapy programs to be at the DPT level by 2016.

CAPTE is an accrediting agency nationally recognized by the US Department of Education and the Council of Higher Education Accreditation. CAPTE's beginnings started in 1977, and since 1983 has been the only accrediting agency for physical therapy programs. Currently, CAPTE accredits over 250 Physical Therapy programs, and 350 Physical Therapy Assistant education programs. Licensure of a physical therapist requires graduation CAPTE-accredited program, with the exception of foreign-educated physical therapists. According to the APTA, those who have obtained a license outside of the USA, "they are required to have their educational credentials reviewed as part of the licensure process unless they attended a physical therapy program outside the U.S. that was accredited by the Commission on Accreditation in

Physical Therapy Education. This review must be conducted by a credentialing agency approved by the jurisdiction in which the applicant intends to practice as a PT or work as a PTA".

CAPTE lays out specific categories and requirements that a physical therapy graduate program requires through its Standards and Required Elements (CAPTE). These requirements are listed 1A through 8H, and consist of categories based on student pass rates, curriculum, accreditation from the US Department of Education or Council for Higher Education, faculty responsibilities, clinical educator coordinator expectations, recruitment and admission policies and procedures, and obtaining adequate program resources. One, element, in particular, 1C3, states students demonstrate entry-level clinical performance during clinical education experiences prior to graduation.

Nationally, examination of the physical therapist is sought through the Federation of State Boards of Physical Therapy, or FSBPT. The FSBPT was initiated in the 1980s by several members of the American Physical Therapy Association (APTA). In 1987, the FSBPT had twenty-two states commit to their program, with the APTA transferring ownership of the National Physical Therapy Examination (NPTE) to the Federation of State Boards of Physical Therapy (FSBPT) in 1993, two events that solidified the FSBPT as the primary accrediting agency of physical therapists.

The American Physical Therapy Association, or APTA, is an organization of physical therapists, physical therapy assistants, and physical therapy students. The organization was founded in 1921, and helped develop the National Physical Therapy Examination, an organizational journal, held combined section meetings, developed specialist certification exams, and formed the House of Delegates. Currently, the organization has over 100,00 members who contribute and take part in the initiatives the organization begins. The APTA was, and is, a

fundamental part of physical therapy history that has brought the field to where it is today. The APTA also has its own definition of entry-level graduates and student therapists, which consists of these individuals being able to complete examination and intervention skills, level of independence/supervision, professionalism, cost-effectiveness, safety, diagnoses, etc. It is through CAPTE, FSBPT, and the APTA where continuation of updating standards for physical therapists and the skilled services they provide to the public are well defined. Students and academic programs should seek to meet these standards and expectations.

Clinical instructors (CI) are those who are assigned to supervise student physical therapists through their clinical education experiences. Each CI should have at least one year of practice prior to accepting a student. The APTA offers continuing education and credentialing to CIs to become certified clinical instructors. These credentials are not required but are encouraged. The Credentialed Clinical Instructor Program (CCIP) is intended for healthcare providers who are interested in developing their teaching abilities.

Each professional program also has its own requirements and expectations of what the student should achieve and become competent in prior to graduation. One way of measuring these achievements is through the Physical Therapy Clinical Performance Instrument (PT CPI). In 1997 the Clinical Performance Instrument (CPI) was created and implemented in the physical therapy curriculum and has been updated in 2006, 2008, and 2012 (Wolden M et al).[6] The initial and the current version contain a three-factor method (Professional Practice, Patient Management, and Practice Management) with 18 criteria that was developed from the use of the Exploratory Factor Analysis (ERA) and since then has not been evaluated by the Confirmatory Factor Analysis (CFA). The CFA may be an ideal approach to help determine the discriminant validity of the performance criteria as rated by the student and CI and due to the lack of using

this analysis, it raises concerns about the validity of the current version of the instrument. CFA can provide statistical evidence to modify and decrease the length of the three-factor PT CPI model and in turn, be an important next step toward a more preferred CPI model. Another primary concern that encouraged the 2006 update was the length of the CPI, then in 2008 a web-based (versus paper-based) version was created and implemented. In addition to length as a concern to updating the CPI, other concerns included a lack of specificity, redundancy of performance criteria, poor completion rates, and the duration and increased program costs.

The CPI continues to be used as a web-based format with ongoing similar concerns as previously mentioned. There is a suggestion for a two-factor method with 15 grading criteria versus a three-factor method with 18 grading criteria to address the redundancy and length concerns (Wolden M et al).[6] This would entail modifications such as the removal of professional development (due to having a close relationship to professional practice), removal of accountability (due to the close relationship with professional behavior), and removal of evaluation (due to overlap of expectations with examination).

PURPOSE

The purpose of this study is to look at how CIs define an entry-level physical therapist performance and what expectations would be placed on a new graduate in the clinic. An electronic survey was sent to all clinical instructors who have accepted UND students for clinical rotations in the past 5 years, dating back from 2018 to 2022. Ensuring that newly graduated physical therapists are competent in entry-level roles as defined by governing bodies is an important goal for all programs.

RESEARCH QUESTION

This study asked the following question: What, if any, differences are there in how clinical instructors define entry-level physical therapist performance?

HYPOTHESIS

There are no significant differences in how clinical instructors define entry-level physical therapist performance.

CHAPTER II

LITERATURE REVIEW

Entry-level can mean many things in the world of employment, and according to Merriam-Webster, entry-level is defined as the lowest level of the hierarchy in terms of employment.[26] This definition, however, does not fully define what it means to be an entry-level physical therapist in its full capacity. An entry-level graduate of a DPT program is expected to perform their responsibilities and duties safely, professionally, and independently. Physical therapists are required to be prepared to use a variety of examination and intervention techniques to treat patients.

To become a physical therapist, one must graduate from an accredited physical therapy program, pass the National Physical Therapy Examination, and comply with additional requirements for each state's licensure. Entry-level physical therapists are expected to maintain a full caseload, safely and efficiently address patient goals and impairments, and continue to receive continuing education dependent on practice acts requirements in the state one is licensed. To help assess students working toward entry-level, the Clinical Performance Instrument (CPI) is widely used nationwide as a benchmark for a student's readiness to enter the clinic as a licensed physical therapist. Also, CAPTE mandates that DPT programs provide evidence that each graduate has obtained entry-level status prior to graduation (CAPTE).[27] In addition, the CPI is the most common validated assessment tool for full-time physical therapist clinical education experiences, in use since its development in 1997 (Dupre et al).[10]

The CPI currently defines entry-level performance within four bulleted criteria involving no guidance and managing simple and complex conditions, proficiency in examinations, interventions, and clinical reasoning, as well as consulting and maintaining a full-time caseload that is cost-effective. The CPI also defines beyond entry-level with five bulleted criteria that involve entry-level criteria however, emphasizing "beyond" with terminology that includes: "highly skilled," for examinations, interventions, and clinical reasoning, "is capable of supervising others" and "assumes a leadership role for managing patients with more difficult or complex conditions" (CPI).[28] Altogether, the CPI defines entry-level performance as: "a student who is capable of functioning without guidance or clinical supervision with simple or complex patients. Consults with others and resolve unfamiliar or ambiguous situations. At this level, the student is consistently proficient and skilled in simple and complex tasks for skilled examinations, interventions, and clinical reasoning. The student is capable of maintaining 100% of a full-time physical therapist's caseload in a cost-effective manner" (CPI).[28]

In addition to the CPI, definitions of "entry-level" have been further explored by differing specialties in physical therapy including acute care and pediatrics. Nof et al[29] received feedback from 399 participants completing an entry-level performance survey for acute care including PT faculty, CIs, and employer expectations of DPT graduates. Twenty-five characteristics were included in this survey where two characteristics were consistently ranked highest among the 3 participant groups: "safe and reliable" for the acute care setting.[29] Five essential core competencies to be considered "entry-level" in pediatric physical therapy were defined by Rapport et al: 1) human development, 2) age-appropriate patient management, 3) family-centered care, 4) health promotion and safety, and 5) legislation, policy, and systems. Each of these core competencies is further defined considering all domains of development, effective

application of patient management model to children and to their families, family-centered care including consistent collaboration with families throughout patient management and involving family priorities in POC, consideration of ICF, knowledge of state and federal regulations including policies and systems.[25]

The 5 different dimensions of criteria the CPI contains are supervision/guidance, quality, complexity, consistency, and efficiency which a CI will use to rate a physical therapy student. It is recommended that CIs consider the 5 performance dimensions while documenting to support a student's marked rating (Wetherbee E et al).[21] Within these dimensions are 18 performance categories: safety, professional behavior, accountability, communication, cultural competence, professional development, clinical reasoning, screening, examination, evaluation, diagnosis and prognosis, plan of care, procedural interventions, educational interventions, documentation, outcomes assessment, financial resources, and direction and supervision of personnel.

Each of these categories is considered an essential aspect of professional practice of a physical therapist performing at entry level. Rating is then plotted on an interval table consisting of types of performance: beginning performance, advanced beginner performance, intermediate performance, advanced intermediate performance, entry-level performance, and beyond entry-level performance (PT CPI).[28] To be certified as a clinical instructor while using the CPI to evaluate student performance, CPI training and a Clinical Instructor Credentialing Program Credentialed Clinical Instructor Program (CCIP) are encouraged. The CPI training should take approximately 1 hour of instruction and the CCIP involves 15 contact hours of instruction and assessment.[16] Despite there being a validated performance tool that is widely used by most DPT programs, there are still discrepancies in what entry-level truly means and what standardized requirements look like.

Revisions of the CPI occurred in 1997, 2006, and 2008. In 1997 and 2006 shorter versions were made, and in 2008 a web-based format was implemented from a paper-based format. The initial length of the CPI in 1997 was 24 performance categories compared to the 2006 version and the current CPI with 18 performance categories. Professional practice, patient management, and practice management contain the combined categories while ensuring the tool-maintained content validity.[18] In 2008, Adams et al[14] confirmed the CPI is a multidimensional, internally reliable instrument demonstrating construct validity which was a promising result for the physical therapy profession in evaluating psychomotor skills.[14]1 The CPI is used in most American and Canadian physical therapy programs.

A common concern among DPT faculty, DPT students, and CIs, however, is the length. There also seems to be a concern that CIs who find the CPI longer than optimal may omit ratings on any criteria they deem non-essential in assessing students.[17] Wolden et al[6] suggest evaluating the three-factor model further to address this concern with confirmatory factor analysis (CFA), which is used to determine discriminant validity. CFA can also provide statistical evidence to modify and decrease the length of the three-factor PT CPI model - which is a promising next step toward a more preferred model. In addition to length as a primary concern, other reported concerns since 2003 are lack of specificity, redundancy of performance criteria, poor completion rates, and increased program costs.[6]

The APTA and American Council of Academic Physical Therapy both agree there is a need for recommendations on the best physical therapy in PT clinical education.[1] While the CPI tool has been important for bringing about uniformity in how students are being assessed with greater accessibility with a digital version, there are still gaps that need to be filled. Clinical instructors have voiced concerns with each school having a set of standards but operating with

different program lengths and course requirements. These discrepancies ultimately alter a student's readiness, and CIs have requested greater uniformity in programs' education and requirements. Additionally, with emerging subspecialties and increasing scope of practice, there has been a greater need to re-evaluate how different settings can affect how ready a new graduate is to enter the field and what the expectation of an entry-level therapist looks like.[1]

Jette et al[2] identified seven domains of competency: knowledge, clinical skills, safety, clinical decision-making, self-directed learning, interpersonal communication, and professional demeanor. This study conducted in 2007, using interviews of 21 physical therapists indicates a common denominator found in many clinical performance and readiness surveys, which is safety, professionalism, interpersonal communication, and clinical skills being amongst the most important skills required prior to entering the workforce. Timmerberg[2] identified stakeholder expectations which consisted of demonstrating personable, engaging, and friendly behaviors, introducing oneself to CIs, patients, and clinical staff, respect for patients, peers, healthcare professionals, and community, punctuality with all assignments, understanding of HIPAA regulations, and appropriate dress code.[1] Some of these domains and expectations surveyed amongst physical therapists closely align with the APTA's requirements of new graduates, largely focused on proficiency in clinical skills, interpersonal relationships, professionalism, adherence to ethics, and independence of a full caseload. While many therapists can agree on categories they find important and ideal, there is still not a clear picture of what should be a standard for all students amongst these varying expectations.

On the other hand, while there may not be a clear picture of what defines entry-level, there is a clearer picture of what is expected of a first clinical experience. Swilinksi et al[4] conducted a study focusing on students and clinical instructors comparing their readiness after

the student's first or initial clinical experience, which provides insight into what is expected of a student's initial clinical experience[4]. All parties agreed the level of competency of the first clinical experience was less than their final and conclusive clinical experience. Five of these 14 items were the five "red flag" performance criteria, which consisted of safety, responsible behavior, professional behavior, ethical practice, and legal practice. This indicates at a bare minimum; these five performance criteria are essential prior to entering the workforce. What needs further clarification and research is non-red flag skills, which are up to greater interpretation based on the individual student and clinical instructor.[4]

The APTA identifies clinical reasoning as a skill and practice expectation described in A Normative Model of Physical Therapists Professional Education and CAPTE requires all DPT programs to develop and assess clinical reasoning skills as expected at entry-level standards.[22] Assessing entry-level and critical reasoning was performed through a 2015 study at the University of Texas Tech DPT program. One entering cohort of 71 students were asked to complete the California Critical Thinking Skills Test (CCTST), the California Critical Thinking Dispositions Inventory (CCTDI), and a demographic survey to help determine the level of critical thinking. The analysis indicated the majority of these students had a positive disposition toward critical thinking and the CCTST specifically suggested these students were slightly below the national average. However, the overall analysis of this cohort demonstrated moderate to middle-range scores in critical thinking and disposition toward critical thinking which may suggest the potential for learning challenges within didactic and clinical environments. To promote increased entry-level and CPI performance, it is suggested to assess critical thinking scores as part of the admission process and the CCTST and CCTDI are recommended tools.[8]

Clinical performance as an indicator of passing the NPTE was considered in a 2017 study including 134 students who graduated from a DPT program between the years of 2012-2014. Two analyses were conducted to determine which variables were predictive of a first-time NPTE score including a hierarchical linear multiple regression (HMR) and a correlation analysis of all 18 categories on the CPI. CPI scores came from the first full-time clinical, overall CPI score, and eventually the NPTE. The HMR results demonstrated first-year GPA would be the strongest predictor of the variance of NPTE scores and the correlational analysis found no statistically significant correlation between the 18 categories of the CPI, overall CPI score, and NPTE passing score.[13] Another 2005 study by Kosmahl et al[15] found similar results with no significance from the CPI score to the NPTE score of 92 entry-level Master of Physical Therapy program students of classes 2001-2003. Variables that were analyzed included age at graduation, overall GPA, comprehensive exam scores, CPI scores and NPTE scores. The comprehensive exam scores and the overall GPA were most correlated to the NPTE score, rather than age and CPI scores.[15]

When looking at specific specialties, they come with their own set of requirements and expectations of what defines entry-level as well. Pelvic floor health has specific guidelines about information that should be required learning, and often requires continuing education and mentorship past graduation[1]. Acute care rehabilitation CI feedback valued student safety, ethical practice, integrity, communication, and recognition of physical therapy red flags[1]. The Acute Care Confidence Survey (ACCS) was created as a measure of student self-efficacy for acute care clinical education experiences (CEEs).

Rosenfeldt et al[11] looked at these surveys asking students to rate their self-efficacy prior to acute care experiences and compared that to their clinical instructors' ratings. The results

showed that moderate correlations between midterm CPI and the total judgment subscale. Students who experienced stimulated experiences tended to be overly confident compared to those who did not, and students who had previous experiences in an acute care setting had better outcomes. Results show that perhaps prior exposure to acute care settings with reflection may merit better clinical experiences in an acute care setting. The acute care setting presents complex patients with various diagnoses, which may lead students to feel unprepared. Overall, "ACCS was found to be internally consistent, reliable, and have low to moderate correlations with the midterm CPI scores in an educationally diverse group of students, indicating that self-efficacy alone is likely not enough to predict student performance."[11]

Pediatric setting requirements were found to have a greater focus on red flag skills, examination, and interventions, with more complex and advanced skills not being viewed as entry-level. Entry-level physical therapists in pediatric settings are expected to learn skills related to understanding more complex diagnoses over time with the assistance of more experienced physical therapists who can serve as mentors. Recent graduates who enter the pediatric field often are not labeled as ready for independent practice until two to three years of practice[3].

The differing criteria and definitions amongst clinical instructors of what entry-level means, presses the ongoing question of whether or not the CPI is the right tool to be used as an evaluation. One study conducted by Dupere et al[10] looked at using the Clinical Internship Evaluation Tool, or CIET. The CIET was validated and created at a university in the United States and looked at how students, clinical instructors, and other stakeholders viewed the CIET compared to the CPI. The CIET was developed in 1999 and used until 2003. The CIET features 44 different items to evaluate a student on, graded from 0 to 10, with a summative grade that compiles these items together. It takes around 30-60 minutes to complete, is featured through

EXXAT, which also offers students their clinical site placement information, and is accessible to both clinical instructors and students.[10] Another aspect of CI grading of entry-level was assessed in a study that compared ratings from novice and experienced CIs. It was concluded that experienced CIs awarded higher ratings on the CPI than novice CIs however, ratings on only a few of the performance criteria were significantly different.[7]

Compared to the CPI, the CIET is quicker, more accessible, and boasts quick and efficient customer service. However, it is not validated throughout Canada and the United States the way the CPI is, and there would be a learning curve for clinicians with a new program. Survey results showed that students reacted positively to CIET, indicating it was more efficient and required less time. The response by clinical instructors varied, with some appreciating a new perspective and the accessibility of the tool; however, others did say they preferred the rating criteria and extensiveness of the CPI. Those who were exposed to the CIET viewed the tool more positively compared to initial impressions. Fitzgerald et al[5] obtained information from a faculty and CI survey about the CIET that revealed feedback of adequate representation of expected skills and behaviors for a clinically competent physical therapist. In addition to this obtained survey, this study revealed the CIET appears to be a valid tool for measuring student clinical performance while recognizing time efficiency for CIs in the present-day clinical environment. More research and modifications to the CIET would be needed to gauge how clinical instructors view a transition to the CIET, as there have not been revisions to the CIET since 2003 and only one academic institution has been a part of a study to validate the tool in 2007.

Another tool that has been compared to the CPI has been the Assessment of Physiotherapy Practice (APP) instrument that has been used to assess physiotherapy students' clinical competencies at the University of British Columbia. This instrument is shorter, more

time efficient, equivalent to fulfilling entry-level standards, and more preferred by physiotherapy students.[20]

Embracing transition and change from the CPI to an alternate tool was discussed at the 2018 ELC Clinical Education Special Interest Group (CESIG) meeting where a motion was put forth calling for leadership to establish a task force to explore alternate tools and data management platforms.[9] Three months later at the 2019 Combined Sections Meeting (CSM) and CESIG meeting, an electronic platform company demonstrated updates to the CPI technology however, no discussion of the content within the tool was noted or recorded. It became more hopeful at the 2019 ELC CESIG meeting that continued interest in exploring alternate tools and references discussion of a psychometric review of the CPI was noted and recorded. The primary focus was to decrease the redundancy of the content in the CPI and increase its effectiveness. Compared to the CPI, this is where the CIET continues to be a promising tool for student performance assessment, both within and across institutions, and it is necessary to address the profession's pursuit of excellence within a clinical environment. However, the CPI is currently under revision and a new tool will be unveiled in October 2022. The current CPI will still be utilized until June 2023.

To identify and synthesize evidence from current performance tools, a 2018 systematic review compared 14 existing assessment tools including the CPI, CIET, and the Assessment of Physiotherapy Practice (APP) among others. Many of these tools demonstrated inconsistencies in criteria and a lack of quality studies to pinpoint one tool over another. The review concluded that continued research on performance assessment tools is needed to promote collaboration and effective evaluation in the profession.[10]

CHAPTER III

METHODS

Purpose: Review and approval was obtained from the University of North Dakota Institutional Review Board Committee before the Initiation of this study. The purpose of this study was to define what an entry-level physical therapist looked like from a clinical instructor's viewpoint.

Selection of Study Sample: This survey was sent to every clinical instructor who had accepted a physical therapy student from the University of North Dakota since 2018. The link to the survey was sent to 309 clinicians. Informed consent was obtained through the voluntary completion of this survey. A total of 76 surveys were returned with a return rate of 24%, which would indicate a good sample size, as the acceptable return rate is 20%.

Instrumentation: The electronic survey was developed by the researchers and was evaluated by an outside clinician to enhance reliability and validity.

Procedure: The survey was sent and received electronically. The survey was sent to all clinical instructors who supervised physical therapy students from the University of North Dakota since 2018.

Data Analysis: The survey will contain questions gauging the clinical instructors' perspectives on entry-level therapists' readiness, alongside demographic information such as age, location, setting, etc. Data will be analyzed using the Statistical Package of Social Sciences and retained for three years.[30]

CHAPTER IV

RESULTS

The survey was sent electronically to 309 clinicians who had accepted a UND student since 2018 across various settings such as inpatient rehab, acute care, pediatrics, outpatient hospital-based, and outpatient private practice. Of the 309 surveys sent out, 76 were received with varying demographics across the states in the Midwest such as North Dakota, Minnesota, South Dakota, etc., and a few locations in the west and south of the United States. The return rate was 24%, which surpasses the acceptable range of 20% for survey responses. Most respondents held a DPT degree and had a mean of over a decade of working as clinicians and supervising an average of 12 students. The majority of respondents were APTA-credentialed clinical instructors, with 45 out of the 76 respondents being either level 1 or 2 certified CI.

Table 1. Entry-Level Degree and Highest Degree Held

Degree	BSPT	MPT	DPT	Other
Entry-Level	6	14	56	0
Highest	4	11	59	2

Table 2. Demographics				
Mean (SD) (n= x)		Range		
		Minimum	Maximum	Std. Dev.
Age	38.37	25	62	8.703
Years as a Clinician	13.04	2	40	8.959
Number of Students Supervised	12.43	1	75	13.002

Of the 76 responses, 67 or 84.2% of respondents stated that they agree with the definition of an entry-level performance and agree upon a 10-12 patient caseload for a full-time Physical Therapist. Responses to those who agreed upon this definition, both inpatient and outpatient rehab therapists agreed upon this definition and caseload most strongly, whereas acute care, rural, and pediatric settings agreed upon the definition but stated the caseload could vary in their settings. Those who disagreed, which consisted of 12 or 15.8% of responses, did not agree with the definition or the caseload for entry-level PT. Arguments against the definition and caseload mainly centered around a new graduate's inexperience with patients, lack of exposure to complex cases, and need for increased mentorship in more specialized settings such as pediatrics.

Table 3. Overall "Do You Agree with the Definition of Entry-Level Performance?"			
	Frequency	Percent	Valid Percent
No	12	15.8	15.8
Yes	67	84.2	84.2
Total	76	100.0	100.0

CHAPTER V

DISCUSSION

Based on current literature there are differences in viewpoints amongst students, CIs, and educational programs on what may be considered an entry-level physical therapist and what may be the best method to assess that definition. Some argue utilizing different tools such as the CIET and APP, while others believe the CPI should be refined to become more efficient and straightforward. A large group of clinical instructors continues to believe the current CPI is a valuable tool. Concerns over the extensiveness and redundancy of the CPI are often met with the opinion the tool still allows CIs to give ample feedback and address concerns should there be any. [5]

The question of whether different areas of physical therapy such as pediatrics and an acute setting should have a different consideration for defining entry-level altogether has also been discussed.[,3,11] The CPI has been a tool used for over 19 years and many programs and clinical instructors are familiar with its format and classifications of entry-level readiness. On the other hand, if it has been nearly two decades and the profession has evolved and the same benchmark for entry-level therapists has been used, there is a concern about whether or not the current entry-level definition(s) and assessment are truly up-to-date and best practices.

Results were gathered from a survey taken from CIs who have supervised a University of North Dakota student in the last 5 years. Of the respondents, 84.2% of clinical instructors state they agree with the definition of what an entry-level physical therapist looks like. These results

share a common train of thought that is found in different studies. Those who participated in both the CIET and CPI have stated they prefer the CPI's assessment of what an entry-level therapist looks like.[7] The CPI is often stated to allow for increased opportunity to discuss areas of improvement for students and covers many of the values that an entry-level therapist should have. The 12% of CIs who stated 'no' explained they believe that many newly graduated physical therapists need more time to accommodate the process of each workplace and understand how to treat complex patients more effectively.

Others stated that new graduates who have spent more time working within a specific setting as a student will have more difficulty transitioning into an unfamiliar area of physical therapy. Additionally, one response that stands out was from a CI who stated they believed other CIs focused too much on patient productivity compared to the student truly learning and growing. While the majority of respondents did agree with the definition, those who disagreed raised valid concerns. Overlooking them may result in a physical therapist entering the field who may not be ready to treat complex patients.

Overall, the CPI has been the standard for evaluating a student's readiness to enter the workforce for nearly two decades, serving as a reliable and valid tool for many physical therapists. However, through research and discussion, it is clear that there is an opportunity for improving and better aligning the CPI with the current developments within the field. The field of physical therapy has expanded to include more specialized care, advancements in technology, and changes in evidence-based practice. To better prepare future clinicians, these changes and advancements should be considered in how students are evaluated, and continued feedback from physical therapy programs, instructors, and students should be taken into further consideration.

REFERENCES

1. Jette DU, Bertoni A, Coots R, Johnson H, McLaughlin C, Weisbach C. Clinical instructors' perceptions of behaviors that comprise entry-level clinical performance in physical therapist students: a qualitative study. *Phys Ther*. 2007;87(7):833-843. doi:10.2522/ptj.20070003
2. Timmerberg JF, Dole R, Silberman N, et al. Physical therapist student readiness for entrance into the first full-time clinical experience: a delphi study. *Phys Ther*. 2019;99(2):131-146. Doi:10.1093/ptj/pzy134
3. Kenyon LK, Dole RL, Kelly SP. Perspectives of academic faculty and clinical instructors on entry-level DPT preparation for pediatric physical therapist practice. *Phys Ther*. 2013;93(12):1661-1672. doi:10.2522/ptj.20120538
4. Sliwinski MM, Schultze K, Hansen RL, Malta S, Babyar SR. Clinical performance expectations: A preliminary study comparing physical therapist students, clinical instructors, and academic faculty. *JOPTE*. 2004;18(1):50-57. doi:10.1097/00001416-200401000-00007
5. Fitzgerald LM, Delitto A, Irrgang JJ. Validation of the clinical internship evaluation tool. *Phys Ther*. 2007;87(7):844-860. doi:10.2522/ptj.20060054
6. Wolden M, Drevyn E, Flom-Meland C, Gusman LN. Evaluation and modification of the physical therapist clinical performance instrument. *JOPTE*. 2021;35(2):85-94. doi:10.1097/JTE.0000000000000180

7. Rubertone PPME, Nixon-Cave KFP, Wellmon RDFN. Influence of clinical instructor experience on assessing doctor of physical therapist student clinical performance: a mixed-methods study. *JOPTE*. 2022;36(1):25-33. doi:10.1097/JTE.0000000000000208
8. Courtright J. The relationship between the physical therapist clinical performance instrument scores and doctor of physical therapy student learning styles. *Relationship Between the Physical Therapist Clinical Performance Instrument Scores & Doctor of Physical Therapy Student Learning Styles*. January 2017:1. Accessed April 29, 2022. https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=124665080&site=ehost-live
9. North S, Sharp A. Embracing Change in the pursuit of excellence: transitioning to the clinical internship evaluation tool for student clinical performance assessment. *JOPTE*. 2020;34(4):313-320. doi:10.1097/JTE.0000000000000154
10. Dupre A-M, McAuley JA, Wetherbee E. Objectives to assess student readiness for first, full-time clinical education experiences in physical therapist education. *JOPTE*. 2020;34(3):242-251. doi:10.1097/JTE.0000000000000151
11. Rosenfeldt AB, Greenwood K, Lubbeck K, Brown J, Iversen MD. The acute care confidence survey: examination of the psychometric properties and predictors of performance among students in a large inpatient hospital system. *JOPTE*. 2020;34(2):166-171. doi:10.1097/JTE.0000000000000138
12. Gilles J, Bishop M, McGehee W, Lulofs-MacPherson K, Dunleavy K. Impact on clinical performance of required participation in a student-run pro bono clinic. *JOPTE*. 2019;33(3):209-214. doi:10.1097/JTE.0000000000000083

13. Meiners KM, Rush DK. Clinical performance and admission variables as predictors of passage of the national physical therapy examination. *J of Allied Health*. 2017;46(3):164-170. Accessed December 5, 2022. https://search-ebscohost-com.ezproxylr.med.und.edu/login.aspx?direct=true&db=cul&AN=125354374&site=ehost-live
14. Adams CL, Glavin K, Hutchins K, Lee T, Zimmermann C. An evaluation of the internal reliability, construct validity, and predictive validity of the physical therapist clinical performance instrument (PT CPI). *JOPTE.* 2008;22(2):42-50. doi:https://doi.org/10.1097/00001416-200807000-00007
15. Kosmahl EM. Factors related to physical therapist license examination scores. *JOPTE*. 2005;19(2):52-56. doi:10.1097/00001416-200507000-00007
16. Vendrely A, Carter R. The influence of training on the rating of physical therapist student performance in the clinical setting. *J of Allied Health*. 2004;33(1):62-69. Accessed June 27, 2022.
17. Norman KE, Booth R. Observations and performances "with distinction" by physical therapy students in clinical education: analysis of checkboxes on the physical therapist clinical performance instrument (PT-CPI) over a 4-year period. *Physiotherapy Canada*. 2015;67(1):17-29. doi:10.3138/ptc.2013-64
18. Roach KE, Frost JS, Francis NJ, Giles S, Nordrum JT, Delitto A. Validation of the revised physical therapist clinical performance instrument (PT CPI): Version 2006. *Phys Ther*. 2012;92(3):416-428. doi:10.2522/ptj.20110129

19. O'Connor A, McGarr O, Cantillon P, McCurtin A, Clifford A. Clinical performance assessment tools in physical therapy practice education: A systematic review. *Physiotherapy*. 2017;104:46-53.

20. Murphy S, Dalton M, Dawes D. Assessing physical therapy students' performance during clinical practice. *Physiother Can*. 2014;66:169-176

21. Wetherbee E, Dupre AM, Feinn R, Roush S. Relationship between narrative comments and ratings for entry-level performance on the clinical performance instrument: A call to rethink the clinical performance instrument. *JOPTE*. 2018;23:333-343

22. Christensen N, Black L, Furze J, Huhn K, Vendrely A, Wainwright S. Clinical reasoning: survey of teaching methods, integration, and assessment in entry-level physical therapist academic education. *Phys Ther*. 2017;97:175-186

23. Greenwood K, Stewart E, Hake M, Milton E, Mitchell L, Sanders B. Defining entry-level practice in acute care physical therapist practice. *J of Acute Care Phys Ther.* 2017;8(1):3-10. doi: 10.1097/JAT.0000000000000048

24. Mathwig K, Clarke F, Owens T, Gramet P. Selection criteria for employment of entry-level physical therapists: a survey of new york state employers. *JOPTE.* 2001;15(1):65-74.

25. Rapport MJ, Furze J, Martin K, Schreiber J, Dannemiller L, DiBiasio P, Moerchen VA. Essential competencies in entry-level pediatric physical therapy education. *Pediatric Phys Ther.* 2014;26(1):7-18. doi: 10.1097/PEP.0000000000000003

26. Entry-level definition & meaning *Merriam-Webster*. Merriam-Webster. Available at: https://www.merriam-webster.com/dictionary/entry-level (Accessed: December 4, 2022).

27. Commission on accreditation in physical therapy education. Commission on Accreditation in Physical Therapy Education. https://www.capteonline.org/. Accessed December 4, 2022.

28. Physical therapist clinical performance instrument. APTA. https://www.apta.org/for-educators/assessments/pt-cpi. Published March 21, 2019. Accessed December 4, 2022.

29. Nof L, Gazsi C, Rone-Adams S, Stern D. Physical Therapy Faculty, Clinical Instructors, and Employer Expectations for New DPT Graduates in the Acute Care Setting. *Internet J of Allied Health Sciences and Practice*. Published online 2019. doi:10.46743/1540-580x/2019.1790

30. *IBM SPSS Statistics for Windows.* Version 28.0. Armonk, NY. IBM Corp. 2021.