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Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: Physical Therapy Clinician Perspectives

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University of North Dakota

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Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours:
Physical Therapy Clinician Perspectives

by

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Bachelor of Science in Exercise Science
North Dakota State University, 2016

A Scholarly Project Submitted to the Graduate Faculty of the
Department of Physical Therapy
School of Medicine
University of North Dakota

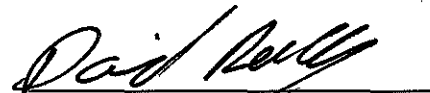
in partial fulfillment of the requirements for the degree of

Doctor of Physical Therapy

Grand Forks, North Dakota
May, 2019

This Scholarly Project, submitted by *Riley Wilson* 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.


(Graduate School Advisor)


(Chairperson, Physical Therapy)

R1

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A handwritten signature in cursive script, appearing to read "C. J. Williams", written over a horizontal line.

Date

12/19/18

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Riley Wilson

ABSTRACT

Purpose: This study analyzes the accessibility and perceived value of contact hours prior to a student's acceptance to a professional physical therapy (PT) program from clinicians' perspective. There is limited research regarding the effectiveness of pre-admission clinical contact hours in PT. The results may help the conversation on whether contact hours should be a requirement prior to acceptance into a program, and the impact the requirement may have on practicing clinicians.

Methods: This study utilized an electronic survey sent to the chairpersons or Directors of Clinical Education of 1-2 accredited programs in each state (n=48) that has a PT program, asking them to distribute the survey to all clinical faculty affiliated with their respective programs. Follow up emails were sent to encourage participation. Survey items gathered information related to pre-admission clinical contact hour experiences and perceptions of usefulness, and limited participant demographic information.

Results: Clinician respondents represented 34 states; 64% of the clinicians practiced in communities less than 250,000 people. Of the 553 respondents, 77% were female, and 42% of all respondents practiced in an outpatient orthopedic (hospital-based or private practice) setting. A majority of respondents (n=510; 95%) believed that pre-admission clinical contact hours were beneficial for students. The main benefits for students were getting a better understanding of the profession and determining career choice (n=284; 55%) and gaining experience/exposure to the profession (n=139; 27%). Clinicians cited their roles when working with pre-admission students as educating and answering questions (n=396; 75%), and ensuring students observe a variety of physical therapy settings and patient diagnoses (n=80; 15%). Some (n=29; 5%) believe contact hours were not beneficial stating, "I feel it is another hoop to jump through for most students," and "It takes up other clinical time that [professional PT] students could be benefitting from."

Overall, clinicians believe that a quality contact experience is the result of exposure to a variety of PT settings and patients (n= 377; 36%) along with interacting with the PT and patients (n=355; 34%).

Conclusion: Practicing clinicians suggest that pre-admission contact hours are beneficial in helping students understand the profession, choose a career in PT, and numerous other benefits. Future analyses will compare these results with 2 other studies, to determine if there is a correlation between clinician, faculty, and student perceptions of pre-admission clinical contact hours. Results may be useful to physical therapy programs as they formulate or revise admission requirements.

CHAPTER I

BACKGROUND AND PURPOSE

Physical therapy is becoming an increasingly popular profession with projections of a 28 percent growth from 2016 to 2026.¹ This is due to the increase in average age of the population with all related health risk factors that accompany aging. In connection to this increasing interest in the profession comes a need to effectively and efficiently screen students prior to admittance into a Doctor of Physical Therapy (DPT) program. To date, programs focus on a variety of categories consisting of Graduate Record Examination (GRE) scores, grade point average (GPA), professional letters of recommendation, personal interviews, and various hours including contact hours, volunteer hours, work hours, or other hours deemed fit. For the purposes of this paper contact hours refers to volunteer, observation, shadowing or work hours.

Application Process

Physical Therapy Centralized Application Service (PTCAS) is a service that a majority of physical therapy programs use for application purposes. PTCAS allows students to apply at multiple schools with one generalized application and compare difference application requirements that vary by institution. Of the 243 accredited physical therapy programs in the United States, 221 (91%) participate in PTCAS online services.² In the 2016-2017 cycle, there were over 19,000 applicants in the PTCAS system, with 118,620 applications send to participating institutions.² With 214 participating programs a total of 9,707 seats are available for admission.³ These numbers mean the overall acceptance rate is right around 50%, implying the review process is quite rigorous. It is also important to note that each individual program has their own predictive measures on student success, and criteria to choose the best possible applicants to both pass the licensure exam and complete the program.

Application Components

Grade point average is the most researched portion of the application and there is compelling evidence as to why. In a 2001 study completed by Dockter,⁴ a correlation was determined between core course GPA along with GPA of the first semester in the PT program with NPTE pass rates. Dockter notes the strongest independent factor in predicting pass rates of the NPTE was GPA following the first semester, but the next strongest predictor was admittance GPA of core classes. First semester GPA was also predicted effectively by admittance GPA.⁵ Combining the results of these two studies, a connection may be made between undergraduate GPA, first semester GPA, and finally NPTE pass rate. Attention has been directed towards GRE scores to assess the ability to predict success. There is no standardized entrance examination for physical therapy programs so programs elect to utilize the GRE. Utzman et al⁶ determined verbal GRE scores were the most predictive independently for failure of the NPTE. This was compared to quantitative GRE scores and undergraduate GPA along with failure rates, both of which showed weak, but significant predictability of academic difficulty. This data was then compared with demographic data to develop correlations for NPTE pass rate. Connections were established that link GRE scores and undergrad GPA to increased pass rate of the NPTE.⁷

A minority of physical therapy programs do not require a degree prior to admittance, which has led schools to develop accelerated programs, resulting in students being accepted into PT programs at a younger age. To the best of our knowledge, there has not been research completed to assess NPTE pass rate dependent on age. Letters of recommendation have minimal research into their effectiveness, but contact hours are possibly a means to building connections for obtaining a letter of recommendation. The professional essay component is designed to learn more about the individual, but with proven verbal GRE score predictability we can infer a correlation to overall writing ability of the student.⁷

Interviews are another aspect of the application process that differs between professional programs. With interviews having high subjectivity, research is limited, and few correlations have been determined between interviewing ability and admissions. In a study of occupational therapy interviews

Thomas et al⁸ determined multiple mini interviews (MMIs) were able to effectively screen for specific attributes. The interviewers as well as the interviewees approved this method, as each MMI looked at a specific aspect of the applicant based on their responses. This research was based on data collected in a similar study completed by Razack et al⁹ to assess MMIs for medical school applicants. This research yielded results of applicants reporting they were able to portray their strengths more efficiently during the interview as compared to a conventional interview. The interviewers also stated they were able to better detect certain aspects of applicants' character when they were looking for the prevalence of a specific trait. This is a growing trend in interview processes across the country with many programs utilizing this technique, but it is not yet proven in physical therapy specifically. Most aspects of the application process are proven to be vital components of predicting success but information on clinical contact hours is miniscule.

Contact Hours

As of 2016-2017, 186 of the 221 programs that utilize PTCAS software require observation hours from their applicants. To this day, there remains limited research on the effectiveness of requiring contact hours for students applying to physical therapy programs, as well as faculty and clinical instructor viewpoints on their effectiveness at predicting academic success. However, there are many benefits for prospective students to complete contact hours prior to postgraduate education. It allows students to begin building their professional identity, along with networking with professionals within their field of interest. Observation also allows for students to grasp the large scope of subspecialties within the physical therapy realm and fosters interest in certain areas. A study conducted by Gleeson¹⁰ in 2003, found that observation hours contributed to the individual's decision to apply to physical therapy school. The students ranked exposure to the profession as the most important implication of the contact hours. With the increasing demand on physical therapists in the healthcare field, it is becoming harder for students to complete the required volunteer hours programs desire. Students often have to go through a rigorous application process if they wish to observe in a hospital setting that includes: training in Health Insurance Portability and Accountability Act (HIPAA), background checks, tuberculosis (Tb) testing, along with

additional paperwork. A study by Wang¹¹ identified the effects of a premedical mentorship program on undergraduate students pursuing a career as a physician. This study found significant increases in knowledge about the profession, but no differences in willingness to pursue a career as a physician. A similar study by Kaye¹² looked at the effects of a Mini Medical school program that was implemented to high school students to identify attitudes towards pursuing a career in medicine. They found that students who participated in the program were more inclined to pursue a career in osteopathic medicine than those who did not, and students felt they had a better understanding of the profession afterwards, along with getting an idea of what medical school is like.

There are various problems that arise when requiring pre-admission contact hours within physical therapy. As stated previously, there were over 19,000 applicants in the 2016-2017 PTCAS cycle. This high volume of applicants puts strain on practicing clinicians to be able to accept students for contact hours and the competition is quite rigorous. Furthermore, observing in acute or inpatient settings may require extensive paperwork and hurdles before one can even begin with a medical facility. This can make the waitlist for observation opportunities grow even larger and completing contact hours more difficult. Accepting students to observe often times requires a large time burden on therapists and may hinder their clinical efficiency. Furthermore, the role of networking plays an important role in accessing contact hours by knowing someone within the system that can help facilitate the process.

Keys to contact hour success

There are a multitude of opportunities for job shadowing in educational institutions, career centers, and businesses. The promotions are mainly for high school students, college students, and employed individuals who are seeking a career, new opportunities or moving within their current employment. According to Manchester Metropolitan University,¹³ job shadowing has numerous benefits to both the host and the guest. The host is allowed to develop their coaching/mentoring skills while the clinic gets to reflect and review on their practices following. While the guest gets to understand the inner workings of the profession and why things work the way they do. Recommendations from the career website MONSTER suggest that sites that are hosting contact hours be prepared and schedule out the day,

have conversations with students, and giving the student information to take home can all make the observational experience more beneficial for both sides.¹⁴

The purpose of this study is to identify the perceived benefits and accessibility of pre-admission clinical contact hours in the physical therapy profession, from clinicians' perspectives.

CHAPTER II

METHODS

Study Design

This study was part three of a three-part study looking into the usefulness of pre-admission clinical contact hours. This portion was focused on the perceptions of clinical faculty of PT programs. Previous parts focused on the perspectives of students and core faculty members in the academic setting. This study was a cross-sectional analysis that utilized an electronic survey tool. This research was approved by the University of North Dakota's Institutional Review Board, IRB-201606-416. IRB documents are included in Appendix A.

Participants - Clinicians

An email was sent to the chairpersons or directors of clinical education (DCEs) of one to two accredited programs in each state (n=48) that has a PT program; the email invited participation in the study and provided a link to the Qualtrics survey. Chairs and DCEs were asked to distribute the surveys to all clinical instructors affiliated with their respective programs. Three follow-up emails were sent to the chairs and directors, and thus the clinical instructors, thanking them for their participation and encouraging non-responders to complete the survey. Informed consent was indicated by completion of the survey.

Survey Design

The research survey, similar to those sent to students and faculty members in earlier studies, was tailored to clinical instructors. The survey addressed clinicians' perceptions as to the usefulness of pre-admission clinical contact hours, their experiences with student contact hours, and demographic information of the respondent. The second section of the survey asked for demographic information about

their setting, such as requirements for contact hours, and the population of the community and state in which their facility is located. Single-answer multiple choice, multiple-answer multiple choice, Likert scale, and open-ended narrative responses were elicited. A copy of the survey is included in Appendix B.

Data Analysis

Qualtrics survey software¹⁵ was used to gather the data which was then downloaded into IBM SPSS Statistics 24 software for analysis.¹⁶ Categorical data was recoded based upon frequency of responses. Specifically, ‘state in which your program is located’ was recoded into U.S. Census bureau categories of four regions. Population categories were collapsed from seven to five: Less than 50,000; 50,000-99,999; 100,000-249,000; 250,000-999,999; and greater than or equal to 1,000,000. Likert scale responses used a 7-point scale for increased variance (Strongly Disagree, Disagree, Slightly Disagree, Neutral, Slightly Agree, Agree, Strongly Agree) were recoded into three categories (Disagree, Neutral, Agree) for reporting of frequencies and percentages.

Two types of statistical analyses were run. Traditional descriptive statistics were used for frequencies, percentages, measures of central tendency (means and medians) and a measure of variability (standard deviation). Inferential (non-parametric) statistical tests were used to determine differences in the Likert ratings between groups. For example, K-W Analysis of Variance (K-W ANOVA) tests were used to analyze differences in ratings between respondents from different geographical regions and different size communities. For all inferential statistical tests, $\alpha = .05$ was to identify the region of significance. Dunn’s post hoc analyses with Bonferroni corrections were used when appropriate.

Narrative responses were coded by researchers and categorized based on similarly recurring narratives. The original categories were then reviewed for further interpretations. For example, for the question “What makes for quality clinical contact hours?” the original category of ‘interactions’ was parsed into themes of ‘interactions with the PT’ and ‘interactions with a patient.’ For example, a response of “asking the PT [physical therapist] questions during observation” would fall under interactions with the PT. For narrative answers with number ranges, the average of the range was calculated; answers ending in

'0.5' were rounded up and placed in appropriate category. For example, 2.5 would be placed in the category of 3-4 and not 1-2.

CHAPTER III
RESULTS AND DISCUSSION

The results of this research study focus on the perceptions and perceived usefulness of pre-admission clinical contact hours from the clinicians' perspectives. Respondent demographics were analyzed along with beliefs about the usefulness of the contact hours for students. Furthermore, opinions as to a quality experience and clinicians' roles during the experience were analyzed. Additionally, responses between regions of the country and between population categories were compared.

Demographics

Surveys were returned from 553 clinicians. The majority of responses were from females; 76% were from clinical instructors. Additional roles of Clinical Coordinator, and Director or Supervisor were also identified. Most respondents (59%) graduated after 2000. See Table 1.

Table 1. Respondent Demographic Data: Frequencies and Percentages

Respondent Demographics*			
Gender (n=523)		n	%
	Female	404	77
	Male	119	23
Role (n=551)			
	Staff Physical Therapist	421	76
	Clinical Instructor	424	77
	Clinical Coordinator of Clinical Education	171	31
	Department Director or Supervisor	132	24
Year of Graduation, Entry-Level Degree (n=473)			
	1970 - 1979	10	2
	1980 - 1989	65	14
	1990 - 1999	118	25
	2000 - 2009	152	32
	2010 - present	128	27

* Not all respondents answered each item

Clinician respondents represented 34 states and all four regions of the United States¹⁷, however, only 1 clinician responded from the Northeast; for inferential statistical analyses, this respondent's data was subsequently added to the Southern region so their voice could be heard. The largest number of respondents (n=330, 63%) came from the Midwest. Forty-seven percent of the respondents' practice in communities of less than 100,000 people and 19% practice in communities of 1,000,000 or more. See Table 2.

Table 2. Demographic Data of the Respondents' Programs: Frequencies and Percentages

Region in Which the Respondents' Program is Located (n=525)	n	%
Northeast (ME, NH, VT, MA, RI, CT, NY, NJ, PA)	1	<1
South (DE, MD, DC, VA, WV, NC, SC, GA, FL, KY, TN, AL, MS, AR, LA, OK, TX)	99	19
Midwest (OH, IN, IL, MI, WI, MN, IA, MO, ND, SD, NE, KS)	330	63
West (MT, ID, WY, CO, NM, AZ, UT, NV, WA, OR, CA, AK, HI)	95	18
Population of the Community in which the Respondents' Program Is Located (n=520)		
≤49,999	126	24
50,000 - 99,999	118	23
100,000 - 249,999	87	17
250,000-999,999	93	18
≥1,000,000	96	19

Demographics of the Practice Setting

Forty-five percent of all respondents practiced in an outpatient orthopedic (hospital-based or private practice) setting and 20% in acute care. A majority of respondents, 88%, indicated that pre-physical therapy (pre-PT) students are able to complete contact hours at their facility. The number of students completing hours at their clinics in 1 week was, on average, <1 (34%), 1-2 (35%), 3-4 (5%), and 5 or more (6%). Almost 70% of respondents state their facility sees, on average, 2 or fewer students per week. Respondents indicate that their students are assigned to a specific PT (47%); or a specific setting (37%). Open-ended narrative responses offered additional information. While in the clinic, the students' assignments are given based upon a variety of considerations. These might include a student's request for specific setting, a therapist's availability, a patient's diagnostic category, or the patient's willingness to have a student in the room. See Table 3.

Nearly all (93%) of the respondents indicated their setting does not have specific learning goals or objectives for students' contact hours. Of the 58 goals and/or objectives reported by 35 respondents, 31% included 'gaining exposure/observation' and 15% included 'understanding the profession.' See Table 3

Table 3. Demographics of the Respondents' Settings: Frequencies and Percentages.

Primary Practice Setting (n=524)	n	%
Acute Care	102	20
OP Ortho (hospital-based or private practice)	235	45
Pediatrics	41	8
Rehab Hospital	47	9
OP Neuro (hospital-based or private practice)	25	5
Long Term Care	20	4
Other	65	13
Pre-admission clinical contact hours are allowed in the setting. (n=551)		
Yes	481	88
No	69	13
On average, the number of students coming to the setting in one week (n=479)		
Less than 1		43
1-2		43
3-4		6
5 or more		7
Considerations for assigning students (n=551)		
A specific PT	261	47
A specific practice setting	202	37
'Other' (narrative responses)	52	9
Specific learning goals and/or objectives are present for pre-PT students (n =479)		
No	444	93
Yes, clinicians identified goals or objectives with narrative text	35	7
Number of goals or objectives stated by n=35 clinicians	58	NA

Clinicians' Perspectives of Pre-Professional Clinical Contact Hours: A Dichotomous Question and Narrative Responses

This study assesses the perceived benefits of pre-admission clinical contact hours from the clinicians' *personal* perspectives. The research survey first asked for a dichotomous 'Yes or No' response to 'Do you feel contact hours are beneficial to students?' This question was followed by the opportunity to provide a narrative response explaining the 'Yes' or 'No' answer.

Of 539 responses, the majority of respondents (n=510; 95%) perceive that pre-admission clinical contact hours are beneficial for students. Specifically, 510 respondents said 'Yes,' contact hours are beneficial; 479 clinicians provided narrative text to support their responses. Narrative responses were categorized into 4 major response types. Of these, there were 284 responses (59%) indicating contact hours "give students a better understanding of the PT profession as a whole and helps to determine the students' future career choice." Similarly, 139 (29%) perceive that gaining exposure and experience to the profession is a benefit in developing students' skills.

Only 29 clinicians perceived that contact hours are *not* beneficial, and they offered a variety of explanations including: 'the time is often a passive learning experience' and 'the activity is a burden to both the supervising PT and the facility.' Some respondents addressed the students' demeanors and reported that students are "just doing their time" or they felt students perceived the hours as "another hoop to jump through" to get into a professional school. Another stated 'Most students are paying poor attention during their observation' and "they (the students) are not engaged in the learning process...'

Of the participants who felt clinical contact hours were worthwhile for pre-PT students, 479 gave narrative responses to support their decision. The results from this question correlates with previous research by Sadler¹⁸ in that exposure to a particular field helps guide career decisions in the future and helps develop professional skills. Similarly, Aschbacher¹⁹ found that many students could trace their career interests back to positive experiences in the field.

The results from this narrative survey question are also useful to determine why some experiences fall short for both the students and the clinicians. One of the most compelling burdens is the number of students requesting contact hours when exploring career choices or for the fulfillment of application requirements. Another concern is the ability to engage students through interactive learning, allowing students to assist in any way possible. The profession as a whole can utilize these results as an evaluation tool for quality improvement within the clinic to make contact hour experiences more beneficial.

Clinicians' Perspectives of Pre-Professional Clinical Contact Hours: Likert Scale Responses

A series of statements asked for the clinicians' level of agreement or disagreement as to the benefits of contact hours and the reasons for the benefit, if any. Likert scale responses, using a 1 – 7 scale, again indicated that clinicians perceive contact hours are beneficial. The mean rating was $5.72 \pm .84$ with '6' as the 25th percentile; i.e., 75% of the ratings were at 6 or above for 'Agree' or 'Strongly Agree' ratings. Respondents also agree that contact hours help students with their career choice with a rating of $5.69 \pm .890$. Most other potential benefits displayed weak agreement or a neutral response. Specifically, responses were neutral as to 'Contact hours help student to decide to apply to a specific physical therapy program.' See Table 4.

Table 4. Clinicians' Perspectives as to the Benefits of Pre-Admission Clinical Contact Hours: Frequencies, Percentages, Means and Standard Deviations.

	n	Frequencies and Percentages ^a						Mean ^b	Std Dev ^b
		Disagree		Neutral		Agree			
		n	%	n	%	n	%		
Contact hours are beneficial to students.	540	26	5	2	<1	512	95	5.72	.836
Contact hours help students:									
in deciding on physical therapy as a career.	537	27	5	11	2	499	93	5.69	.890
to decide to apply to a particular physical therapy program.	539	147	27	158	30	234	43	4.17	1.40
decide on a specific patient/client population with which to work.	539	91	17	64	12	384	71	4.80	1.30
decide on a specific setting in which they would like to work.	539	89	17	66	12	384	71	4.82	1.28
to perform well within the professional physical therapy program.	539	122	23	118	22	299	55	4.51	1.39
to perform well within clinical experiences and/or internships.	539	106	20	99	18	334	12	4.69	1.38
with their communication skills with patients/clients.	534	84	16	70	13	380	71	4.91	1.29

^a Disagree: Strongly Disagree; Disagree; Somewhat Disagree Responses.
Neutral: Neutral.

Agree: Somewhat Agree; Agree; Strongly Agree Responses

^b Calculations for Means and Standard Deviations used the original 7-point Likert Scale 1 - 7

Clinicians' Perspectives as to the Benefits of Pre-Admission Clinical Contact Hours: Differences Ratings between Regions of the Country and between Sizes of Communities

Respondent ratings for the perceived benefits of pre-admission were compared between regions of the country, Northeast, South, Midwest, and West. Because of the low response rate from the Northeast (n=1), this respondent was placed into the Southern region for data analysis.

The non-parametric Kruskal-Wallis statistical test for ordinal data determined perceptions were similar between regions of the country for five of the eight Likert response statements. Of the three statement showing differences between regions, pairwise differences were not present when using Dunn's post hoc analyses with Bonferroni Correction. For the one statement consistently demonstrating regional differences, ratings from clinicians in the Midwest were higher than the ratings from those in the South. Means, standard deviations, medians and K-W ANOVA test results are shown in Table 5.

Table 5. Clinicians' Perspectives of the Benefits of Contact Hours: Descriptive Statistics and K-W ANOVA Test Results Comparing Perceptions between Regions of the Country^a

	Descriptive Statistics ^b			Median	K-W ANOVA			
	n	Mean	SD		H	df	p	
Contact hours are beneficial to students.	525	5.72	.84	6	6.554	2	.038 ^{cd}	
Contact hours:								
Help students decide on physical therapy as a career.	South	99	5.49	1.13	6	7.387	2	.025 ^o
	Midwest	329	5.77	.75	6			
	West	94	5.61	1.05	6			
	Total	522	5.69	.900	6			
Help students to decide to apply to a particular physical therapy program.	525	4.19	1.40	4	4.002	2	.135	
Help students decide on a specific patient/client population with which to work (i.e. pediatrics geriatrics, athletic, neurologic).	525	4.79	1.31	5	1.308	2	.520	
Help students decide on a specific setting in which they would like to work (i.e. acute care, out-patient, long term care).	525	4.82	1.29	5	1.880	2	.391	
Help students to perform well within the professional physical therapy program.	525	4.50	1.40	5	6.022	2	.049 ^{cd}	
Help students to perform well within clinical experiences and/or internships.	525	4.67	1.38	5	2.797	2	.247	
Help students with their communication skills with patients/ clients.	520	4.89	1.30	5	2.716	2	.257	

^a Three regions. Data from the Northeast region (n=1 respondent) was combined with data from the Southern Region.

^b Calculated from responses on 7-point Likert Rating Scale
1 = Strongly Disagree, 4 = Neutral, 7 = Strongly Agree

^o Kruskal-Wallis Test significant at p < .05.

^d Dunn's pairwise tests with Bonferroni corrections demonstrated no significant differences between population categories.

Clinicians' Perspectives as to the Benefits of Pre-Admission Clinical Contact Hours: Differences in Ratings between Communities of Differing Sizes

Respondent ratings for the perceived benefits of pre-admission were compared between communities of differing sizes: < 50,000; 50,000 - 99,999; 100,000 – 249,999; 250,000 – 999,999; and \geq 1,000,000.

Sixty-four percent of respondents lived in population areas of less than 250,000. Respondents from differing size communities responded similarly to statements regarding the benefits of contact hours. K-W ANOVA tests demonstrated a difference between groups for one statement, but pairwise comparisons were not significant. Means, standard deviation, medians and K-W ANOVA test results are found in Table 6.

Table 6. Clinicians' Perspectives of Pre-Admission Clinical Contact Hours: Rating Means, Standard Deviations, and K-W ANOVA Results between Population Categories

	Descriptive Statistics ^a			Media n	K-W ANOVA		
	n	Mean	SD		H	df	p
Contact hours are beneficial to students.	520	5.72	.840	6	9.684	4	.046 ^{bd}
Contact hours:							
Help students decide on physical therapy as a career.	517	5.69	.901	6	8.885	4	.064
Help students to decide to apply to a particular physical therapy program.	520	4.18	1.40	4	5.433	4	.246
Help students decide on a specific patient/client population with which to work (i.e. pediatrics geriatrics, athletic, neurologic).	520	4.78	1.31	5	6.857	4	.144
Help students decide on a specific setting in which they would like to work (i.e. acute care, out-patient, long term care).	520	4.81	1.29	5	4.443	4	.349
Help students to perform well within the professional physical therapy program.	520	4.50	1.41	5	2.581	4	.630
Help students to perform well within clinical experiences and/or internships.	520	4.6	1.39	5	4.499	4	.343
Help students with their communication skills with patients/ clients.	505	4.89	1.30	5	2.191	4	.701

^a Calculated from responses on 7-point Likert Rating Scale

1 = Strongly Disagree, 4 = Neutral, 7 = Strongly Agree

^b Kruskal-Wallis Test significant at $p < .05$.

^d Dunn's pairwise tests with Bonferroni corrections demonstrated no significant differences between population categories

Clinicians' ratings were very similar between regions or populations within the United States as to the perceived usefulness of pre-admission clinical contact hours. This is important to recognize as a majority still believe contact hours are beneficial, and clinicians from a particular region or size of community has a differing perception as to the experiences of students. It is concerning that there was only one response from the Northeast, and no explanation for this has been determined.

Primary Roles and Responsibilities of Clinicians, as Reported by Clinicians

Respondents (n = 480) offered 1030 narrative descriptors as to what makes a quality pre-admission clinical contact hour experience. Responses were organized into eight emergent categories. The greatest number of (n=355, 34%) was in the category of interaction/education with a PT. A variety of experiences was the second most reported response. Other categories included Exposure to Patients and Interaction/Communication with Patients; Student Engagement; and Clinician Engagement. Categories with fewer than 10% of respondents are not reported here. See Table 7 for frequencies and percentages of responses and examples of clinical statements.

It is imperative that students that ask questions, seek out learning opportunities, and interact with patients; these students have more worthwhile experiences according to clinician responses. Those that are able to assist the supervising PT, as allowed by law, are thought to have a quality experience as well. A clinical instructor who is actively educating students on what he/she is doing is also seen as beneficial. Furthermore, clinicians can foster a learning environment and include students in the therapy sessions as much as possible. This gives students a broader idea of the PT profession as a whole and can help facilitate interest in a particular setting or population. The results of this research are beneficial for clinicians in order to foster a worthwhile learning experience for potential colleagues.

Table 7. Primary Responses Indicating a Quality Clinical Experience from Clinicians' Perspective: Frequencies, Percentages, and Examples of Responses

Category	n	%
Exposure to and Interaction/Communication with Patients <ul style="list-style-type: none"> • “Students observing directly/closely in-patient care & patient/clinician interaction...” • “Exposure to an interesting patient.” 	194	15
Variety of Settings <ul style="list-style-type: none"> • “Seeing a variety of patients and experiences.” • “Exposure to multiple practice settings.” 	221	17
Interaction/Education with PT	355	27
Student Engagement <ul style="list-style-type: none"> • “Active participation from the student--asking questions, engaged in learning, active listener.” • “Interaction with the patient and physical therapist with the pre-PT student heavily involved in the session.” 	201	15
Clinician Engagement <ul style="list-style-type: none"> • “A PT who is able to communicate well about what they are doing and why.” • “Willingness of PT to answer questions they [students] might have.” 	144	11

Letters of Recommendation

The effects of pre-admission clinical contact hours on gaining a letter of recommendation have not been researched extensively. Although, based on a select number of narrative responses and in communication with licensed professionals, pre-clinical contact hours are a way to build relationships with clinicians for references (n=12) and for future employment. As noted, “It also helps to get to know the student for writing letters of recommendations and filling out applications” and “Many times it ends up having us write a letter or recommendation”. Thus, signifying the importance of building relationships with professionals and interaction throughout the experience.

Additionally, through personal communications with practicing clinicians, many professionals feel that it is important to work with students to evaluate how they might perform in the clinic, and to determine if they will be good candidates for the profession. Again, if the experiences go well, clinicians often times write letters of recommendation for students who request them.

Limitations

Despite the researcher's best efforts, adequate data was not collected from every state in this study the clinicians' desire to participate or incorrect contact information. Either the survey was undeliverable from the researcher's standpoint or recipients were unable to forward it on to their affiliated clinical sites. Furthermore, only 1 clinician from the Northeast region responded, thus limiting the generalizability of our results across all regions of the United States.

Each question had varying numbers of responses; some respondents chose to skip questions or they left narrative response boxes blank. There could also have been misinterpretation of survey questions by the subjects. Wording and syntax was left for interpretation by the respondents; narrative responses indicated some confusion as to the meaning of a question.

All narrative responses in this study were coded and categorized by the researchers, at their discretion. Narrative responses were then analyzed and reviewed by other members of the research team. No outside reviewers were used.

Future Research

With the increasingly high demand for physical therapists and increasing numbers of individuals applying to professional programs, it is imperative that an optimal amount of pre-clinical contact hours are established and reevaluated by each prospective PT program to ensure every prospective student has access to such experiences. As a result of this study, the opinions of students, academic faculty, and clinicians should be compared to assess the accessibility and perceived value of pre-admission clinical contact hours in physical therapy.

With today's increasingly technological world, it would be interesting to investigate the value of clinic-based goals in improving communication with patients and professional staff. Already, from the

Likert scale responses, it is interesting that clinicians (380 of 534 [71%]) perceive pre-admission clinical contact hours are beneficial in building student's professional communication skills.

CHAPTER IV

CONCLUSION

Based on the results of this study, a majority of clinicians believe that pre-admission clinical contact hours are beneficial for students wishing to pursue a career in physical therapy. Contact hours give students a better understanding of the profession as a whole, build communication skills, and gain exposure to a variety of patients and settings. They also help prospective students decide on career choice by giving them exposure to the profession earlier in their academic journeys. Thus, it is important that physical therapy programs continue to require clinical contact hours prior to admission into prospective programs to ensure the best candidates are available for graduation.

Clinicians' primary role in clinical contact hour experiences is to foster a learning environment for students by educating them about the profession and engaging them in patient care practices. Developing professional relationships and potential mentorships are also primary roles. Positive, engaged clinicians working with students insure the greatest experience possible. The results of this study are useful for clinicians and physical therapy practices in the development of student goals and may help tailor the experiences to the benefit of both parties.

Implications for Clinical Sites

With the growing demand for physical therapists in the United States, it is important that pre-professional students have quality contact hour experiences to help learn about the profession and to make career choices for the future. It is imperative that clinicians are communicating and involving students throughout their experiences to ensure they receive the utmost understanding of what the profession entails on a daily basis. Along with communication, clinicians should encourage interaction and

engagement with patients, staff, and all other personnel to develop working relationships and to become better rounded in the profession.

The results of this study offer great insight into the value of pre-admission clinical contact hours and their benefits for the physical therapy profession, from clinicians' perspectives. These results indicate that a majority of practicing clinicians feel contact hours are beneficial prior to pursuing physical therapy school, resulting in a stronger foundation for the profession as a whole.

REFERENCES

1. Physical therapists: Occupational outlook handbook: U.S. bureau of labor statistics. <https://www.bls.gov/ooh/healthcare/physical-therapists.htm>. Accessed Nov 8, 2018.
2. Aggregate program data: 2017-2018 physical therapist education programs fact sheets. Commission on Accreditation in Physical Therapy Education (CAPTE) Web site. http://www.capteonline.org/uploadedFiles/CAPTEorg/About_CAPTE/Resources/Aggregate_Program_Data/AggregateProgramData_PTPPrograms.pdf. Updated 2018. Accessed November 8, 2018.
3. Physical therapist centralized application service 2016-2017 applicant data report. http://www.ptcas.org/uploadedFiles/PTCASorg/About_PTCAS/PTCASApplicantDataRpt.pdf. Updated 2017.
4. Dockter M. An analysis of physical therapy preadmission factors on academic success and success on the National Licensing Examination. *Journal of Physical Therapy Education*. 2001;15(1):60-64.
5. Nuciforo M, Litvinsky Y, Rheault W. Variables predictive of admission to US physical therapist education programs. *Journal of Physical Therapy Education*. 2014;28(3):112-119
6. Utzman RR, Riddle DL, Jewell DV. Use of demographic and quantitative admissions data to predict academic difficulty among professional physical therapist students. *Physical Therapy*. 2007;87(9):1164-1180
7. Utzman RR, Riddle DL, Jewell DV. Use of demographic and quantitative admissions data to predict performance on the national physical therapy examination... including commentary by sandstrom R and author response. *Physical Therapy*. 2007;87(9):1181-1198.
8. Aliko Thomas, Meredith E. Young, Barbara L. Mazer, Stuart E. Lubarsky & Saleem I. Razack (2015) Candidates' and Interviewers' Perceptions of Multiple-Mini Interviews for Admission to an Occupational Therapy Professional Program. *Occupational Therapy in Health Care*, 29:2, 186-200
9. Razack, S., Faremo, S., Drolet, F., Snell, L., Wiseman, J., & Pickering, J. (2009). Multiple mini-interviews versus traditional interviews: Stakeholder acceptability comparison. *Medical Education*, 43(10), 993-1000. doi:10.1111/j.1365-2923.2009.03447.x
10. Gleeson PB, Utsey C. An examination of observation hours used as an admission criterion for physical therapist programs in texas. *Journal of Physical Therapy Education*. 2003;17(1):65-73.
11. Wang J, Lin H, Lewis P, Fetterman D, Gesundheit N. Is a career in medicine the right choice? the impact of a physician shadowing program on undergraduate premedical students. *Academic Medicine*. 2015;90(5):629-633.
12. Kaye KE, Berns AL, Cress LR, Nazar AM. Mini-medical school programs are an effective tool to introduce students to osteopathic medicine. *The Journal of the American Osteopathic Association*. 2014;114(2):109. <http://www.ncbi.nlm.nih.gov/pubmed/24481803>.

13. Manchester Metropolitan University. Job shadowing guidelines. https://www2.mmu.ac.uk/media/mmuacuk/content/documents/human-resources/a-z/guidance-procedures-and-handbooks/Job_Shadowing_Guidelines.pdf. Accessed Nov 8, 2018.
14. Vogt P. Four ways to make job shadow day work. Monster Career Advice Web site. <https://www.monster.com/career-advice/article/make-job-shadow-day-work>. Accessed Nov 8, 2018.
15. Qualtrics, 2009. Copyright 2015. Provo, Utah, USA. Version 10-12, 2015. <http://qualtrics.com>.
16. IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. 37 Armonk, NY: IBM Corp.
17. Geography UCB. Geography atlas - regions. United States Census Bureau Web site. <https://www.census.gov/geo/reference/webatlas/regions.html>. Accessed Dec 18, 2018.
18. Aschbacher P, Li E, Roth E. Is Science Me? High School Students' Identities, Participation and Aspirations in Science, Engineering, and Medicine. *Journal Of Research In Science Teaching* [serial online]. May 1, 2010;47(5):564-582. Available from: ERIC, Ipswich, MA. Accessed May 23, 2018.
19. Sadler P, Sonnert G, Hazari Z, Tai R. Stability and Volatility of STEM Career Interest in High School: A Gender Study. *Science Education* [serial online]. May 1, 2012;96(3):411-427. Available from: ERIC, Ipswich, MA. Accessed May 23, 2018.
20. Anderson K, Volden M. Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: A Physical Therapy Student Perspective. May, 2016.
21. Fell N, Mabey R, Mohr T, Ingram D. The Preprofessional Degree: Is It a Predictor of Success in Physical Therapy Education Programs? *Journal of Physical Therapy Education*. 2015; 29(3):13-21.

APPENDIX A

Institutional Review Board
Twamley Hall, Room 106
264 Centennial Dr Stop 7134
Grand Forks, ND 58202-7134
Phone: 701.777.4279
Fax: 701.777.6708

June 22, 2016

Principal Investigator(s):	Renee Mabey, PT, PhD; Cindy Flom-Meland, PT, PhD, NCS
Project Title:	Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Clinician's Perspective
IRB Project Number:	IRB-201606-416
Project Review Level:	Exempt 2
Date of IRB Approval:	06/22/2016
Expiration Date of This Approval:	06/21/2019

The application form and all included documentation for the above-referenced project have been reviewed and approved via the procedures of the University of North Dakota Institutional Review Board.

If you need to make changes to your research, you must submit a Protocol Change Request Form to the IRB for approval. No changes to approved research may take place without prior IRB approval.

This project has been approved for 3 years, as permitted by UND IRB policies for exempt research. You have approval for this project through the above-listed expiration date. When this research is completed, please submit a Termination Form to the IRB.

The forms to assist you in filing your project termination, adverse event/unanticipated problem, protocol change, etc. may be accessed on the IRB website: <http://und.edu/research/resources/human-subjects/>

Sincerely,



Michelle L. Bowles, M.P.A., CIP
IRB Coordinator

MLB/sb

Cc: Chair, Physical Therapy

University of North Dakota Exempt Certification Form – JANUARY 2015 VERSION
Research Involving the Use of Survey, Interview, Observational Procedures or Educational Tests

Complete this form if you are requesting permission to use survey, interview, or observational procedures, or educational tests.

All research with human participants conducted by faculty, staff, and students associated with the University of North Dakota, must be reviewed and approved as prescribed by the University's policies and procedures governing the use of human subjects. No activities are to be initiated without prior review and approval by the Institutional Review Board.

Please answer the following questions regarding your research. Handwritten forms are not accepted – responses must be typed.

1. Are prisoners included in the research? Yes No

If you answered "Yes" to the above question, this research does not qualify as exempt. Please fill out and submit a "Human Subjects Review Form". If you answered "No", continue to question 2a.

2a. Are children included in the research? Yes No

If you answered "No" to the above question, please skip question 2b and continue to question 3. If you answered "Yes", continue to question 2b.

2b. Does the research include survey or interview procedures? Does the research involve the observation of public behavior with researcher interaction with the subjects? Yes No

If you answered "Yes" to questions 2a and 2b, this research does not qualify as exempt. Please fill out and submit a "Human Subjects Review Form". If you answered "No", continue to question 3.

3a. Will the data be documented in such a manner that subjects cannot be identified, either directly or through identifiers linked to the subjects (subject name, social security number, birth date, coding, etc.)? Yes No

If you answered "Yes" to the above question, please skip question 3b and continue with the rest of the form. If you answered "No", continue to question 3b.

3b. Will the disclosure of the subjects' responses outside of the research reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation?

Yes No

If you answered "Yes" to the above question, this research does not qualify as exempt. Please fill out and submit a "Human Subjects Review Form".

4. Will the research involve the use of audio, video, digital or image recordings of subjects? Yes No

If you answered "Yes" to the above question, this research does not qualify as exempt. Please fill out and submit a "Human Subjects Review Form". If you answered "No", provide the information requested below:

Principal Investigator: Renee Mabey, PT, PhD

Cindy Flom-Meland, PT, PhD, NCS

Telephone: 701-777-2831 for either

E-mail Address: renee.mabey@med.und.edu

cindy.flom.meland@med.und.edu

Complete Mailing Address: 501 N Columbia Road, Stop 9037 Grand Forks, ND 58202

School/College: University of North Dakota

Department: Physical Therapy

Student Advisor (if applicable):

Telephone:

E-mail Address:

Address or Box #:

School/College:

Department:

*** All IRB applications must include a Key Personnel Listing

Project Title: Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Clinician's Perspective

Proposed Research Beginning Date: June 2016

Exempt research will be approved for 3 years from the original approval date.

Funding agencies supporting this research: none

(A copy of the funding proposal for each agency identified above MUST be attached to this proposal when submitted.)

Does any researcher associated with this project have a financial interest in the results of this project? If yes, submit on a separate piece of paper an additional explanation of the financial interest. The Principal Investigator and any researcher associated with this project should have a Financial Interests Disclosure Document on file with their department.

YES or NO

Will any research participants be obtained from another organization outside the University of North Dakota (e.g., hospitals, schools, public agencies, American Indian tribes/reservations)?

YES or NO

Will any data be collected at or obtained from another organization outside the University of North Dakota?

YES or NO

If yes to either of the previous two questions, list all institutions:

Letters from each organization must accompany this proposal. Each letter must illustrate that the organization understands its involvement and agrees to participate in the study. Letters must include the name and title of the individual signing the letter and should be printed on organizational letterhead.

Does any external site where the research will be conducted have its own IRB? YES or NO

If yes, does the external site plan to rely on UND's IRB for approval of this study? YES or NO
(If yes, contact the UND IRB at 701 777-4279 for additional requirements)

If your project has been or will be submitted to other IRBs, list those Boards below, along with the status of each proposal.

_____ Date submitted: _____ Status: Approved Pending
_____ Date submitted: _____ Status: Approved Pending

(include the name and address of the IRB, a contact person at the IRB, and a phone number for that person)

Type of Project: Check "Yes" or "No" for each of the following.

YES or NO New Project YES or NO Dissertation/Thesis/Independent Study

YES or NO Continuation/Renewal YES or NO Student Research Project

YES or NO Is this a Protocol Change for previously approved project? If yes, submit a signed Protocol Change Form, along with a signed copy of this form with the changes bolded or highlighted.

Please provide additional information regarding your research by responding to questions 5-11 on a separate sheet of paper.

5. In non-technical language, describe the purpose of the study and state the rationale for this research.

6. In non-technical language, describe the study procedures.

How will subjects be informed of the research? If you will be having subjects sign a consent form, justify why. How will instrument(s) be distributed/collected? Will compensation be provided? What is the suspected duration of subject participation? Etc.

7. Where will the research be conducted?

8. Describe what data will be recorded.

9. How will data be recorded and stored (that is will it be coded, anonymous, etc.)?

Note: Must state that data will be stored for a minimum of three years after data analysis is complete, or for a period of time sufficient to meet federal, state, and local regulations, sponsor requirements, and organizational policies and procedures.

10. Describe procedures you will implement to protect confidentiality of data collected from participants and privacy of participants when participating in research activities.

11. Describe the nature of the subject population and the estimated number of subjects.

If participants who are likely to be vulnerable to coercion and undue influence are to be included in the research, define provisions to protect the privacy and interests of these participants and additional safeguards implemented to protect the rights and welfare of these participants.


12. Include a copy of the study information sheet to be given to participants (either in person or online, depending on the nature of the research) that discloses research information. A template is available under 'Exempt Certification Forms' on the IRB Forms page of the IRB website: <http://und.edu/research/resources/human-subjects/forms.cfm>

Necessary attachments:

- Signed Student Consent to Release of Educational Record Form (students and medical residents only);
- Investigator Letter of Assurance of Compliance;
- Key Personnel Listing;
- Surveys, interview questions, or educational tests;
- Printed web screens (if survey is over the Internet);
- Advertisements, including recruitment emails/letters and social network postings; and
- Informed consent statement.

NOTE: The UND IRB requires that all key personnel involved in the research complete human subject education before IRB approval to conduct research can be granted.

By signing this form, I certify that the above information is accurate and that this research will be conducted in accordance with the statements provided above; this research does not involve prisoners, but if a subject becomes a prisoner, I will notify the IRB.

Renee Malvey Cindy Flom-Malamed  6/10/2016
(Principal Investigator) Date:

(Student Adviser) Date:

****All students and medical residents must list a faculty member as a student advisor on the first page of the application and must have that person sign the application.****

Submit the signed application form and any necessary attachments to the Institutional Review Board, 264 Centennial Drive Stop 7134, Grand Forks, ND 58202-7134; or bring it to Twamley Hall, Room 106.

5. In non-technical language, describe the purpose of this study and state the rationale for this research.

Title: Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Clinicians' Perspective

This study is one part of a larger project which addresses: (1) accessibility of pre-professional clinical contact hours in a variety of settings and (2) the perceived value of students' pre-admission clinical contact hours from the perspective of students, clinicians, and academic faculty. *This part* of the study will address the accessibility and value of pre-professional clinical contact hours from the perspective of the clinical faculty. The results of this study and the larger three-part study may be used to help physical therapy programs make deliberate, informed decisions regarding their admissions criteria.

Rationale: Many physical therapy programs require pre-admission clinical contact hours as part of their admission criteria. These observation, volunteer, or work hours are presumed to increase a student's knowledge of the profession -- the student will be more aware of the clientele, tasks, and settings in which PTs work. The student may find the profession to be a 'good fit' with his or her career goals, skills, and personality. If the student decides to pursue PT as a career, he or she may have a preliminary understanding of how academic coursework applies to clinical practice; motivation to succeed in academics may be increased if a goal is in sight.

In contrast to the above perceptions, the discussion of faculty at an American Council of Academic Physical Therapy (ACAPT) Open Forum (Portland, Oregon, 2013) focused on the ability of pre-professional students to complete clinical contact hours. Attendees felt that access to practice settings is becoming more difficult, and with changes in health care, practitioners are too busy to interact with pre-professional students. In addition, many attendees felt that pre-admission clinical contact hours are of limited use. ACAPT was considering a national-level recommendation that completion of pre-professional contact hours not be a criterion for admission to a professional program.

A literature search found very few studies which addressed the accessibility and value of pre-professional clinical contact hours.

Literature.

In 2003, Gleeson and Utsey¹ surveyed four groups of individuals: prospective physical therapy students, first year physical therapy students, Clinical Coordinators of Clinical Education (CCCEs) for physical therapy facilities in Texas, and members of the Admissions Committees of 9 physical therapy schools in Texas. Their research found that students are influenced by their experiences during observation hours, including their decisions to apply to physical therapy school.

Miller and Ciocci² conducted a survey of undergraduate students enrolled in departments of Communication Sciences and Disorders. Their findings determined that observations of a speech language pathologist have a substantial effect on students' career choices, including the patient population with which they decide to work.

In 2006, Mitchell, Dunham, and Murphy³ researched the performance of students enrolled in a dental hygiene program. Mitchell and colleagues found that a student's performance in the first year of his or her program was influenced by an understanding of the profession prior to

admission; students with a greater understanding of the profession could overcome disadvantages related to low didactic ability. Specifically, persons who are familiar with the profession have the ability to perform better in the first year of their coursework.

Summary:

There are few publications related to the accessibility and perceived value of pre-admission clinical contact hours in a physical therapy setting. These are the research questions: Are pre-admission clinical contact hours available? And do stakeholders (students, clinical faculty, and academic faculty) perceive the hours as useful, and if so, how are the hours useful?

A study which addressed the students' perceptions of pre-professional clinical contact hours has been initiated and preliminary analyses completed by these same UND researchers (Dr. Mabey and Dr. Flom-Meland, IRB-2015016369). **The proposed study will ask clinical faculty members their experiences with, and perceptions of, the accessibility and value of pre-professional clinical contact hours.** A study submitted to the IRB, June 2016, will ask academic faculty these same questions.

References:

1. Gleeson, PB., & Utsey, C. (2003). An examination of observation hours used as an admission criterion for physical therapist programs in Texas. *Journal of Physical Therapy Education*, 17(1), 65-73.
2. Miller, S.M., & Ciocci, S. R. (2013). Agents of Change: Undergraduate Students' Attitudes Following Observations of Speech-Language Pathology Service Delivery. *Journal of Allied Health*, 42(3), 141-146.
3. Mitchell, T., Dunham, D., & Murphy, H. (2006). Candidate's questionnaire: an alternative to an admissions interview for applicants to a dental hygiene program. *Canadian Journal of Dental Hygiene*, 40(2), 57-57-8, 61, 63 passim.

6. In non-technical language, describe the study procedures.

Via an email invitation, a Qualtrics survey will be sent to the Chair or Director of Clinical Education at every accredited physical therapy program in the United States. The Chair or Director will be asked to forward the email and the survey link to all clinical faculty associated with his or program. Each faculty member may then choose to participate or choose to not participate; participation is voluntary. (If a clinical faculty member is associated with more than one program, that individual will be instructed to complete the survey only one time.) Two or three subsequent emails will thank participants for their responses and/or serve as a reminder to complete the survey.

The survey will ask the clinical faculty member the availability of, and procedures for, completing pre-professional clinical contact hours in his or her setting. The clinician will be asked about his or her perceptions as to the purpose and value of contact hours; his or her professional profile (e.g., degrees, graduation year, rank, and position); and the demographics of his or her community.

Participants will not receive compensation. The expected participation time within the Qualtrics survey is 10 to 15 minutes.

Data will be collected and stored via Qualtrics software; it will be downloaded, and then analyzed using SPSS software. Traditional descriptive statistics will address respondents' demographics and their responses. Traditional analytical statistics will be used to compare differences between groups, as appropriate. Narrative responses will be coded and analyzed for themes.

As previously noted, this study is one facet of a larger research project, the data sets from students (a prior study), faculty (a concurrent study) and clinical faculty (this study), may be merged for analyses of differences between groups.

Survey results will be disseminated via poster and/or platform presentations, as well as a manuscript. Results may be useful to programs as they address criteria for admission. Results may be useful to clinicians as address pre-professional clinical contact hours within their facilities. The results may influence decisions of access and procedures.

7. Where will the research be conducted?

Research will be conducted through an online survey utilizing Qualtrics software. A link to the survey, supported by CILT at the University of North Dakota, will be disseminated via an email invitation. The respondent will complete the survey at his or her personal or business computer.

8. Describe what data will be recorded.

The Qualtrics survey will have two sections. *Section One* will ask the clinical faculty member the availability and accessibility of pre-admission contact hours in his or her setting. The clinical faculty member will be asked about his or her perceptions as to the purposes and value of these hours. *Section Two* will address the respondent's professional profile (e.g., degrees, years of experience, rank, position), and demographics of the setting of which he or she is part.

9. How will data be recorded and stored?

Participants will complete the online survey via Qualtrics software. Individual identifications will not be requested or recorded. No attempt will be made to locate or track the IP addresses of computers used to complete the survey.

The survey and survey data will be stored on the Qualtrics site for a minimum of 3 years after the study is completed. Copies of the survey and downloaded data will be stored on password protected computers. Only faculty and students conducting the research will have access to the survey and data.

10. Describe procedures you will implement to protect confidentiality of data collected from participants and privacy of participant when participating in research activities.

Completion and submission of the survey implies Informed Consent.

The survey will NOT request identifying information. The respondent will NOT be providing a name, birth date, SSN, employer ID, names of institutions, names of programs, or names of health care facilities. Computer IP addresses will not be investigated for location and owner.

All data files and statistical analyses will be stored on a password protected computer.

All results will be reported in aggregate.

11. Describe the nature of the subject population and the estimated number of subjects.

The survey will be distributed to the Chair or DCE of all accredited or developing physical therapy programs in the United States (n = 259). The Chair or DCE will be asked to forward the survey to all clinical faculty associated with their program

As of the American Physical Therapy Association (APTA) 2014-15 Fact Sheet (updated September 4, 2015), there were 2437 full-time core faculty positions in US programs. The number of clinical faculty is unknown.

Mabey, Renee

From: Bowles, Michelle
Sent: Thursday, November 01, 2018 10:17 AM
To: Flom-Meland, Cindy; Mabey, Renee
Subject: IRB protocol change approval



UND.edu

Institutional Review Board

Tech Accelerator, Suite 2050
4201 James Ray Drive Stop 7134
Grand Forks, ND 58202-7134
Phone: 701.777.4279
Fax: 701.777.2193
UND.irm@UND.edu

November 1, 2018

Principal Investigator:	Renee Mabey, Ph.D., PT; Cindy Flom-Meland, Ph.D., PT
Project Title:	Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Clinician's Perspective
IRB Project Number:	IRB-201606-416
Project Review Level:	Exempt 2
Date of IRB Approval:	11/01/2018
Expiration Date of This Approval:	06/21/2019

The Protocol Change Form and all included documentation for the above-referenced project have been reviewed and approved via the procedures of the University of North Dakota Institutional Review Board.

You have approval for this project through the above-listed expiration date. When this research is completed, please submit a termination form to the IRB.

The forms to assist you in filing your project termination, adverse event/unanticipated problem, protocol change, etc. may be accessed on the IRB website: <http://und.edu/research/resources/human-subjects/>

Sincerely,

Michelle L. Bowles, M.P.A., CIP
IRB Manager

Please note new office location

Michelle L. Bowles, M.P.A., CIP
Manager, Institutional Review Board
University of North Dakota

Tech Accelerator, Suite 2050
4201 James Ray Drive Stop 7134
Grand Forks, ND 58202-7134

P: 701.777.4279

PROTOCOL CHANGE FORM
UNIVERSITY OF NORTH DAKOTA INSTITUTIONAL REVIEW BOARD

Please complete this form and attach revised research documents for any proposed change to your protocol, consent forms, or any supportive materials (such as advertisements, questionnaires, surveys, etc.). All changes must be highlighted. Any proposed change in protocol affecting human participants must be reviewed and approved by the IRB prior to implementation, except where an immediate change is necessary to eliminate a hazard to the participant.

Principal Investigator: Renee Mabey, PT, PhD; Cindy Flom-Meland, PT, PhD, NCS

Telephone: 701-777-4854

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School/College: School of Medicine & Health Sciences

Department: Physical Therapy

Project Title: Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Clinicians' Perspective

Proposal Number: IRB—201606-416

Approval Date: 6/22/2016

THE CURRENT STATUS OF THE PROJECT IS (Check one)

- Project currently in progress. Number of subjects enrolled is: _____
- Project not yet started. No subjects enrolled.
- Project closed to subject entry.

1. Briefly describe and explain the reason for the revision or amendment and the justification for the change. Include a copy of affected protocol pages and consent form with specific changes highlighted.

Graduate Students will be assisting with the data analysis. The students will also be using portions of the analyses for their Scholarly Projects; Scholarly Projects are requirements for graduation and the Doctor of Physical Therapy degree.

Students to be added to the protocol: Andrew Nelson and Riley Wilson

2. Does the change affect the study or subject participation (procedures, risks, costs, etc.)? _____ Yes No

Please explain:

3. Does the change affect the consent document? _____ Yes No

If yes, include the revised consent form(s) with the changes highlighted, and a clean copy of the revised consent form(s).

By signing below, you are verifying that the information provided in the Human Subjects Review Form and attached information is accurate and that the project will be completed as indicated.

Signatures:

Renee Mabey 10/19/2018 Cindy Flom-Meland 10-23-18
Principal Investigator _____ Date: _____

Student Adviser (if applicable)

Date: _____

**UNIVERSITY OF NORTH DAKOTA
INSTITUTIONAL REVIEW BOARD
KEY PERSONNEL LISTING**

1-10	Names of Research Personnel		Position (select from drop-down menu)	Highest Academic Degree (High School, B.S., M.A., Ph.D., M.D., etc.)	Responsibilities (check all that apply)				Data Analysis
	First Name	Last Name			Consent Subjects	Recruit Subjects	Research Design	Intervention	
1	Andrew	Nelson	Graduate student	B.S., Kinesiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Riley	Wilson	Graduate student	B.S., Exercise Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Attach proof of education in human subjects research for all non-UND personnel

Revised 05/15/2017

APPENDIX B



Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: Clinicians

IQ Score: Great

Changes Live

This survey is currently LOCKED to prevent invalidation of collected responses! Please unlock your survey to make changes.

▾ Informed Consent

Block Options ▾

■ Q1

Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Clinician's Perspective



You are invited to participate in a research study designed to analyze the accessibility and perceived value of observation hours prior to a student's acceptance to a professional physical therapy (PT) program. You have been invited to participate as you are a physical therapist working with physical therapy students in the clinic setting.

This survey has two parts: a section with questions about the accessibility and value of contact hour experience(s), and a section with demographic data collection.

Your participation in this survey is voluntary; submission of your responses is implied consent to participate. You may choose not to answer a specific question or withdraw from the survey at any time without penalty.

For more information or questions, please contact Dr. Renee Mabey at 701-777-2831 or renee.mabey@med.und.edu or Dr. Cindy Flom-Meland at 701-777-2831 or cindy.flom.meland@med.und.edu. You may also contact the University of North Dakota Institutional Review Board (IRB) at 701-777-4279 or michelle.bowles@research.UND.edu.

In this survey, "contact hours" refer to any observation, volunteer, or work experiences in which a pre-PT student is observing a licensed physical therapist prior to admittance to a professional physical therapy program. Your responses will be valuable for other professional physical therapy programs and future physical therapy students. The survey will take 5-10 minutes to complete.

Thank you,

Renee Mabey, PT, PhD and Cindy Flom-Meland, PT, PhD, NCS

Add Block

▾ Part 1: Contact hours

Block Options ▾

■ Q2

Are pre-physical therapy (pre-PT) students allowed to complete clinical contact hours at your primary practice setting?

 Yes No

Condition: No Is Selected. Skip To: Your practice setting may or may not

Q3 You indicated that your practice setting allows pre-PT students to complete clinical contact hours. On average how many pre-PT students come to your setting in one week?



Q4 Are the pre-PT students assigned to a specific PT or to an area of the practice setting? (Select all that apply.)



- Specific PT
- Area of the practice setting
- × None of the above
- Other (please specify)

Q5 Does your practice setting reserve specific blocks of time each week for student access?



- Yes
- No

Display This Question:

If Does your practice setting reserve specific blocks of time each week for student access? Yes Is Selected

Q6 Which of the following blocks of time are utilized?



- 1 hour
- 2 hours
- 4 hours
- Other (please specify)

Q9 Does your practice setting have specific learning goals and / or objectives for pre-PT students? (If yes, include up to 3.)



- Yes (Response 1)
- Yes (Response 2)
- Yes (Response 3)
- No

Q8 Does your practice setting hire pre-PT students to work as aides or technicians?



- Yes
- No

Q10 Your practice setting may or may not allow pre-PT students to complete contact hours; however, do you personally feel contact hours are beneficial? Why or why not?



- Yes (Why? please specify)
- No (Why not? please specify)

Q11



Based upon your personal perceptions, indicate your level of disagreement or agreement to the following statements related to pre-professional clinical contact hours.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Contact hours are beneficial to students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact hours help students decide on physical therapy as a career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact hours help students to decide to apply to a particular physical therapy program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact hours help students decide on a specific patient/client population with which to work (i.e. pediatrics, geriatrics, athletic, neurologic).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact hours help students decide on a specific setting in which they would like to work (i.e. acute care, out-patient, long term care).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact hours help students to perform well within the professional physical therapy program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact hours help students to perform well within clinical experiences and/or internships.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact hours help students with their communication skills with patients/clients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19



What do you perceive as your primary role or responsibility when working with pre-professional students?

.....

Q12

In your opinion, what makes a quality contact hour experience for pre-PT students? (Indicate up to 3 items.)



Response 1



Response 2

Response 3

Q7

Some settings allow access for a variety of pre-professional and professional students. Please indicate the students who have access to your setting? (Select all that apply.)



pre-PT students



PT students

PTA students

High school students (i.e. health occupations class)

PT residents

Other

Add Block

Part 2: Demographic data

Block Options

Q13

What is your gender?



Female

Male

Q14

What year did you receive your entry-level PT degree?



■ What is/are your current role(s)? (Check all that apply.)

Q15



- Staff PT
- Clinical Instructor (CI)
- Clinical Coordinator of Clinical Education (CCCE)
- Department Director or Supervisor

■ In what state is your primary practice?

Q16



Alabama

■ In what state is your primary practice?

Q21



Alabama

■ What is your primary practice setting?

Q18



- Acute Care
- Home Health
- Long-term Care
- OP Ortho (hospital-based or private practice)
- OP Neuro (hospital-based or private practice)
- Pediatrics
- Public School
- Rehab hospital
- Other (please specify)

■ What is the population of the city in which your primary practice is located?

Q17



- Less than 50,000
- 50,000 - 99,999
- 100,000 - 249,999
- 250,000 - 999,999
- 1,000,000 - 1,999,999
- 2,000,000 - 4,999,999
- 5,000,000 or more

Add Block



End of Survey

Survey Termination Options...