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ACCESSIBILITY AND PERCEIVED VALUE OF PRE-ADMISSION CLINICAL CONTACT HOURS: A PHYSICAL THERAPY STUDENT PERSPECTIVE

by

Katie Anderson

Megan Volden

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, 2016

This Scholarly Project, submitted by Katie Anderson fulfillment of the requirements for the Degree of Do University of North Dakota, has been read by the Ac Therapy under whom the work has been done and is	octor of Physical Therapy from the dvisor and Chairperson of Physical
	(Graduate School Advisor)
	(Chairnerson Physical Therapy)

PERMISSION

Title ACCESSIBILITY AND PERCEIVED VALUE OF PRE-ADMISSION CLINICAL CONTACT HOURS: A PHYSICAL THERAPY STUDENT PERSPECTIVE

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Katie Anderson Megan Volden

ABSTRACT

Background and Purpose: The purposes of this study were to determine whether professional physical therapy students experience challenges obtaining pre-admission contact hours and if they found them to be beneficial. The results of the survey will be utilized to allow physical therapy programs to make informed decisions about admission requirements in regard to pre-admission contact hours.

Methods: This study was performed utilizing an electronic survey sent in an e-mail to program chairpersons or Directors of Clinical Education, asking them to distribute the survey to their respective current students. All accredited physical therapy programs in the United States were contacted in this manner. The survey was distributed by e-mail, with 2 reminder emails containing the link to maximize response rate. Survey items gathered information related to pre-admission contact hour experiences and limited participant demographic information.

Results: There were 1303 responses to the survey and 99% of respondents completed contact hours. There were 887 (72%) respondents that indicated they completed hours as a professional program requirement, and found them to be beneficial. There were 225 respondents (21%) that indicated contact hours helped them to decide on physical therapy as a career. There were 493 respondents (45%) that indicated they experienced difficulty accessing a site, of which 248 respondents (52%) did not continue to pursue access to that site. There were 215 respondents (20%) who were denied access to a site due to various reasons. Respondents defined quality experiences as those that included: education and

communication (52%); a variety of settings, patients, and diagnoses (23%); interaction and hands-on experience (23%).

Conclusion: We determined that pre-professional contact hours are beneficial to the professional physical therapy student and there is still some level of difficulty accessing sites to complete these hours, but not as much as previously thought. There is more research needed to determine what the optimal number of hours that should be required for admission to a professional physical therapy program. Respondents indicated that quality experiences include communication with the physical therapist, being able to ask questions, being able to interact with patients, experiencing a variety of settings, patient/client diversity, and a variety of treatment methods.

CHAPTER 1: BACKGROUND AND PURPOSE

Physical therapy programs in the United States utilize a rigorous admissions process in order to gain academically competent students. They consider a variety of factors for admission to their programs,² including grade point averages, Graduate Record Examination (GRE) scores, personal essays, letters of recommendation, interviews, and exposure to the field through contact hour requirements.

Many professional physical therapist programs in the United States have contact hour requirements to encourage students to spend time in a physical therapy setting prior to admission to the professional program. In this study, "contact hours" refers to any volunteer, job shadowing, or work experience in a physical therapy setting in which a student is directly observing a licensed physical therapist. The presumed intent of the contact hour requirement is to allow students to gain an understanding of the physical therapy scope of practice, and to have students reflect on decisions related to their career choice. In addition, contact hours may allow students to develop relationships with physical therapists in order to obtain a letter of recommendation on their behalf for application to a physical therapy school. However, demands on the student and clinic potentially exceed the perceived benefits for the student and the program.

The Student and the Program

Students' understanding of the profession is important to the program and the student. A concern in any educational environment is student retention. Some reasons that students choose to withdraw from professional programs include personal loss of a family member or friend, or the student may realize physical therapy was not what he/she expected. Implications of students dismissal or personal decision to leave a professional program include: loss of tuition dollars for the school, personal embarrassment for the individual affected, and financial consequences, such as student loan repayment.²⁴ A student's choice to withdraw from a program also has an indirect impact on viable students that did not gain entry to a particular program; these viable students must now wait another application cycle, spending more time and money while a seat at their program of choice may sit empty. Student retention is also important for accreditation processes through the Commission on Accreditation in Physical Therapy Education (CAPTE), as the program may be impacted by a student's decision to leave the program; programs must monitor and report reasons for student dismissal or withdrawal to CAPTE for accreditation purposes.

It is perceived that clinical observations of professional physical therapists in the community may place high demands on the clinicians and the clinic to accommodate undergraduate students. Additionally, there may be a geographical factor contributing to the problem; rural settings may be easier to gain observation hours versus urban settings due to overall population. The reviewed literature examines physical therapy program admission requirements, perception of contact hours on students, and changes in healthcare and their effect on access to contact hours. Much of the data currently

available regarding contact hours was gathered with students at programs at Bachelor and Master's level; there is limited research with students at doctoral level physical therapy programs.

Admission Process and Requirements

Physical Therapist Centralized Application Service (PTCAS) is a service that allows students to apply online to multiple physical therapy programs in the United States. Additionally, it has been used as a tool to generalize information about schools throughout the country. Information regarding prerequisites, contact hour requirements, and admissions data can be gathered from the PTCAS website from all the schools that participate in this service. Furthermore, PTCAS allows schools to gather information about the applicant pool including demographic data, GPA, and GRE scores. As of the 2013-14 admission cycle, 167³ out of 238⁴ (70%) accredited physical therapy schools in the United States participate with PTCAS, therefore, the data from the remaining 71 programs are not accessible using this service.

Grade Point Average (GPA)

The average overall undergraduate GPA for accepted PTCAS applications in 2013-14 was 3.57.³ There have been numerous studies researching the role that GPA has on admission and academic success in physical therapy programs^{5-10, 24} and for predicting performance on the National Physical Therapy Exam (NPTE). ¹¹⁻¹⁴

Nuciforo et al⁸ studied variables that predict admission to physical therapy programs in the United States. Their results indicate undergraduate science GPA (including classes in anatomy & physiology, biology, chemistry, and physics) is the most predictive of admission to a physical therapy program. In addition, research by Jewell et

al⁷ demonstrated cumulative undergraduate GPA was a significant factor for academic success - indicating the lower cumulative undergraduate GPA correlated with risk for academic probation in a physical therapy program. Furthermore, Shiyko et al⁹ concluded as a student's undergraduate GPA rose by 0.1 points, his/her graduate GPA tended to increase by 0.027 points. This research suggests the need for minimum GPA standards for admission to physical therapy schools in order to predict success of students in the professional program.

Successful completion of the NPTE is required in order to demonstrate competence for a career in physical therapy. According to research, ¹¹⁻¹⁴ professional GPA in a physical therapy program is the best predictor of success on the NPTE. Dockter's¹¹ research of physical therapy students in 2001 indicated the GPA after the first year of physical therapy school was the most useful for predicting NPTE performance.

Graduate Record Examination (GRE)

Many researchers have studied the effects of GRE^{6,7,9,10,15,16} on performance in physical therapy school. In the 2013-2014 PTCAS application cycle,³ the mean unofficial GRE percentile rank for accepted applicants were as follows: verbal percentile rank values for males were 48.49%, quantitative were 53.35%; for females, verbal percentile rank values were 52.21% and quantitative were 48.82%.

Shiyko et al⁹ performed regression analyses on 100 physical therapy students in an attempt to validate admission criteria for physical therapy programs. The results indicate that verbal and quantitative GRE scores have high predictability of graduate GPA, meaning the higher the GRE scores, the better that student will perform in the graduate program as demonstrated by a higher GPA. Other studies^{6,7,10,14,15} validate the assumption that a higher GRE score correlates with better performance in physical therapy school.

In addition, research by Utzman et al¹⁶ in 2007 demonstrated verbal and quantitative GRE scores are predictive of NPTE failure at least one time, meaning students may not pass the NPTE on their first attempt. The most consistent predictor of failing the NPTE at least once was the verbal GRE score. According to Utzman, scores at or below 400 were predictive of academic difficulty. This research was performed in 2007, prior to GRE scoring changes, therefore a current percentile rank of 29% or lower is indicative of NPTE failure on first attempt. These research studies support the use of GRE scores in admission criteria for physical therapy schools in order to demonstrate success in the professional program and for favorable results on the NPTE.

Essays and Letters of Recommendation

There is limited recent research regarding a correlation between essays and student performance in physical therapy school. Balogun et al²⁵ performed a retrospective analysis of admission variables in 1986 to predict academic success in a baccalaureate physical therapy program, measured by professional GPA. Their research concluded higher essay scores correlate with greater academic achievement. Research performed by Roehrig¹⁸ suggests students who score lower on their essays are more likely to encounter problems in the baccalaureate physical therapy program. As defined in the study, problems included semester GPA below 2.5, D or F grades, or withdrawal or dismissal from the program.

The researchers were unable to find information regarding letters of recommendation and their effect on student performance in a physical therapy program.

*Interviews**

On-site interviews allow students and faculty to openly discuss program values and requirements and determine if the students' ideals fit with the program. In addition, students are able to talk about their experiences and knowledge about physical therapy as a career. This gives faculty members an opportunity to get to know students on a deeper level to make decisions on admission. Occasionally, interviews can be viewed as a screening tool to determine how the student communicates with people. Interviews may also have a more formal structure where the student receives a score for their performance in the interview.

There is conflicting research^{11,15,17-23} regarding interviews as an effective tool for admission. Hollman et al¹⁵ used a structured behavioral interview to assess interview scores and their effects on passing the NPTE. Their research suggests persons who score lower on their behavioral interview (less than 16.5 out of 20 on their structured scale) are more likely to fail the NPTE on the first attempt. This indicates the behavioral interview may have a role in determining performance in the professional program and on the NPTE.

In 1996, Youdas et al¹⁷ researched a structured approach to interviewing using 220 applicants to a physical therapy program. They found intra-team reliability for interview scoring was poor. They recommend additional research to determine if structured interviews are better than no interview at all. In addition, research by Roehrig¹⁸

in 1990 concluded interviews were not predictive of academic difficulties in a professional baccalaureate physical therapy program.

In regard to clinical performance, research by Watson et al²¹ concluded the score a student received on his/her interviews was the only variable that differentiated who did and did not perform well in the clinic. This was determined by comparing pre-admission data to a student's clinical performance in a baccalaureate physical therapy program. The results of this study suggest interviews are also beneficial for predicting how well students will perform in a clinical setting.

Previous studies have inconsistent results regarding the effectiveness of an onsite interview for physical therapy school admission. Few studies^{15,17,20} recommend the use of a structured interview for reduction of bias toward interviewees. Despite the reliability and validity of the use of interviews in admission decisions, it appears that interviews continue to be used in a variety of ways in determining admission.

Contact Hours

According to shared data from the 2013-2014 PTCAS application cycle³, 141 of 167 programs that participate in PTCAS require observation hours. Research regarding contact hours as an admission requirement for physical therapy school is limited; therefore, literature from other healthcare fields was accessed. Additionally, there is minimal research that studied faculty perceptions of contact hours.

Student Perceptions of Pre-admission Clinical Contact Hours

In 2003, Gleeson et al²⁶ surveyed four groups of individuals: prospective physical therapy students, first year physical therapy students, Center Coordinators of Clinical Education (CCCE) for physical therapy facilities in Texas, and members of the

admissions committees of 9 physical therapy schools in Texas. Their research found students are impacted by their experiences during contact hours, including influencing their decision on whether or not to apply to physical therapy school.

Miller et al²⁷ distributed a survey to undergraduate students in communication sciences and disorders. The findings supported the idea that observations of a professional speech language pathologist have a substantial effect on students' career choices, including the patient population in which they decide to work.

In a 2006 study by Mitchell et al,²⁸ results indicated first-year performance of students in a dental hygiene program was influenced by their understanding of the profession prior to admittance to the professional program. They found students with greater understanding of the profession could overcome disadvantages related to low didactic ability. This indicates persons who familiarize themselves with their academic program's professional field have the ability to perform better in the first year of professional coursework.

As stated, contact hours have been found to be beneficial for exposure to the field. In addition, students that participate in one-on-one experiences with clinicians may learn ways in which they wish to interact with patients and other medical professionals.

There is minimal data published associated with students' and faculty perceived value of contact hours in a physical therapy setting. Researchers were unable to find any literature published regarding accessibility of physical therapy contact hours separated by setting. With the healthcare environment ever changing, it is believed there are fewer clinical sites willing to accept students for contact. It is perceived this change has made it more difficult for students to gain access to hours that are a requirement at many

professional physical therapy programs in the country. There is limited new research on the benefit of contact hours in the current healthcare environment.

Clinical Concerns

It has been speculated the recent push in healthcare for increased patient turnover in the acute care setting may be playing a role in students' ability to gain access to contact hours in this setting. According to the Healthcare Cost and Utilization Project (HCUP), the length of hospital stays decreased by 0.2% nationally, with the rate of hospital stays decreasing by 1.9% from 2008-2012. However, the cost of the average hospital stay increased by an average of 1.8% from 2008-2012, with adjustments made for inflation.²⁹ The increased pressure from administrators to have patients discharged as soon as possible while containing costs may be putting more strain on clinicians to see as many patients as possible, thus decreasing the time they have to devote to teaching as they would with a student. There is very minimal research indicating this as the reason students are facing more challenges gaining access to acute care settings.

Another theory is that with more focus being placed on patient confidentiality and safety, many institutions are implementing a strenuous process for students to gain access to contact hours, or just not accepting students at all. Some students have indicated that sites they were trying to gain access to required several hour long orientations, expensive background testing, Tuberculosis (Tb) testing, training in Health Insurance Portability and Accountability Act (HIPAA) and hygiene procedures, among other topics. Again, there is very little research published on whether clinical sites are reluctant to accept students based on the legal and safety aspects that need to be followed in a medical based setting.

Changes in Physical Therapy Education

With a greater demand for physical therapists in the United States, there has been an increase in accredited programs and thus more students interested in the positive outlook for a career in physical therapy. Currently in the 228 accredited physical therapy programs, there are 29,246 professional students enrolled.⁴ An increase in professional students requiring clinical experiences may be playing a role in the increased demand on clinicians, thus making it more difficult for them to accept a pre-professional student for observation.

Nuciforo et al⁸ discussed the large increase in enrollment for professional physical therapy programs and students with the implementation of PTCAS. In the academic year of 2010-2011, there were 12,000 applicants who sent out over 56,000 applications to professional physical therapy programs. Nuciforo et al⁸ states this information to highlight the continued competitiveness and difficulty of gaining access to a professional physical therapy program.

Aside from the increase in professional physical therapy programs, there are also a large number of physical therapy assistant (PTA) programs in the United States.

According to CAPTE,⁴ there are 333 accredited PTA programs, and 12,592 PTA students currently enrolled. These PTA students are completing clinical education at sites under the supervision of a physical therapist, thus decreasing the time professionals have available or student pre-professional contact hours.

An obstacle to gaining access to contact hours may be that the site is busy with current professional physical therapy students, leaving limited access for pre-physical therapy undergraduate students. According to CAPTE, the average professional physical

therapy program in 2014-2015 had a planned class size of 41.³⁰ The mean number of clinical education hours for each professional physical therapy student in the program was 1,421 hours, with an average of 35.6 weeks in full-time clinical education. With this information, we can assume there are a large number of professional students in clinical education full time.

Purpose

The purposes of this study were twofold: (1) to assess the perceived value of contact hours and (2) to determine the accessibility of hours in a variety of settings. The results of the survey may be used to allow physical therapy programs to make deliberate and/or informed decisions regarding admissions criteria in their respective programs.

This research is assessing the perceptions from the physical therapy student standpoint.

Further research is being conducted to assess faculty members and clinicians' perceptions of the contact hour requirements.

CHAPTER 2 METHODS

Study Design

This is a cross-sectional analysis using an electronic survey. The study was approved by the University of North Dakota's Institutional Review Board (see Appendix A). This survey will be one of a three-part study determining the accessibility and value of contact hours from the perspective of students, faculty, and clinical instructors.

Participants

The survey was sent to the Director of Clinical Education (DCE) or the department chairperson of all currently accredited physical therapy programs in the United States. They were then asked to distribute the survey link to all of the currently enrolled students in their respective programs. The inclusion criterion for the survey is being currently enrolled in a professional physical therapy program in the United States. Informed consent was indicated by completion of the survey.

Survey Design

Two focus groups were held before the survey was created. The focus groups consisted of students currently enrolled in the University of North Dakota Physical Therapy program. The discussion was facilitated with open-ended questions to encourage an open dialogue about the number of hours the participants completed, how beneficial they found the hours, and if they had any difficulties obtaining hours. Once the

researchers created the survey, the participants of the focus groups were asked to take the survey and provide feedback on whether it was able to capture the discussion points of the focus groups accurately and clearly.

To perform a trial of the survey operation, it was sent to physical therapy faculty members at the University of North Dakota. Faculty members were asked to check readability of the survey questions, and the data was collected and analyzed for face validity. The analysis was successfully completed, indicating the survey was operating as intended. The survey was run through with a select few faculty members before sending out in final form for confirmation that it was operational. Once this was complete, the survey was distributed through e-mail to all programs.

The survey had two distinct parts. Section one of the survey addressed contact hour experiences and perceptions of pre-admission contact hours. This included participants who have and have not completed pre-admission contact hours. Section one questions focused on the number of hours completed, as well as the settings in which they were completed. The participants were asked to identify any challenges they experienced while attempting to gain access to contact hours, and the settings in which they experienced those challenges. Participants were also asked to identify benefits of contact hours in the academic setting as well as the clinical setting. Section two of the survey asked all participants for limited demographic data (see Appendix B for survey).

Procedure

The survey was distributed to all physical therapy programs in the United States. It was distributed by sending an e-mail link to either the DCE or Department Chair at each respective institution requesting they distribute the survey to all of the currently

enrolled students at their program. Two reminder e-mails were sent containing the link to the survey. The survey was open from September 25 through October 28, 2015 for a total of 4.5 weeks. The expected participation time was 5-10 minutes.

Data Analysis

Data was collected electronically through Qualtrics³² and downloaded via survey software. Data was input into SPSS version 21^{33} . Traditional descriptive (frequencies and percentages) and inferential statistics (Chi-square) were run. The alpha level was set at α = .05 for all inferential statistics.

CHAPTER 3 RESULTS AND DISCUSSION

The results and discussion chapter of this paper includes information relative to demographics of survey respondents, results of specific survey questions, implications for professional programs and clinical sites, and limitations of the research. The results were analyzed and compared to previous research as outlined in the literature review.

Personal and professional subject demographics

There were 1,303 students that participated in this study; 268 male participants (26%) and 753 female participants (74%). These proportions are consistent with data from the 2013-14 PTCAS Applicant Data Report indicating more females are accepted to physical therapy programs.³

Students from all years of professional programs were well represented; there were 355 (35%) first year respondents, 332 (33%) second year respondents, and 321 (32%) third year respondents. Students ranged in age 20-52 years with a mean of 24.8 years. See Table 1 for demographic information.

All 4 of the geographical regions are represented in the responses. There were 155 respondents (16%) from the Northeast, 340 (34%) from the South, 329 (32%) from the Midwest, and 192 (19%) from the West region. See Table 1. The Northeast and West were the least represented of the four regions. The respondents to our survey were

adequately represented by both genders, all 3 years of a professional program, and the 4 geographic regions in the United States.

Table 1. Frequencies and Percentages: Subject Demographics of Gender, Age, Year in Professional Program, and Region of Program where Enrolled

Gender	f (%)
Male	268 (26)
Female	753 (74)
Total	1,021 (100)
Age	f (%)
≤24 years old	589 (62)
>24 years old	364 (38)
Total	953 (100)
Year in Program	f (%)
First year	355 (35)
Second year	332 (33)
Third year	321 (32)
Total	1008 (100)
Region & States	f (%)
Northeast ME, NH, VT, MA, RI, CT, NY, NJ, PA	155 (15)
South DE, MD, DC, VA, WV, NC, SC, GA, FL, KY, TN, AL, MS, AR, LA, OK, TX	340 (34)
Midwest OH, IN, IL, MI, WI, MN, IA, MO, ND, SD, NE, KS	329 (32)
West MT, ID, WY, CO, NM, AZ, UT, NV, WA, OR, CA, AK, HI	192 (19)
All Regions	1016 (100)

Research Questions

The purposes of this survey were to assess the perceived value of contact hours and to determine the accessibility of hours in a variety of settings. Due to the length of the survey and attempting to report answers that coincide with our purposes, we chose to focus on seven main questions, which include:

- Did you, or did you not, complete contact hours prior to admission to your professional physical therapy program?
- What were the top three settings in which you performed contact hours, based on time spent in that setting?
- What were the populations of the communities of your three most accessed sites?
- Were any sites difficult to access for observation?
- What is your level of agreement (strongly disagree to strongly agree) as to the effect of observation hours on your career choice, program choice, patient/client population preference (e.g. pediatrics, geriatrics, athletics, neurologic, etc.), and setting choice (e.g. outpatient, acute care, long term care, et cetera). Refer to Appendix B for specific survey questions.
- Did you receive a letter of recommendation from a physical therapist you observed for fulfillment of admission requirements?
- In your opinion, what makes a quality experience for contact hours with a physical therapy site prior to admission to a physical therapy program?

The responses to these questions are reported and analyzed below. Additionally, we compare the results to research from our literature review.

Respondents who did not complete contact hours

By far, the majority of respondents (n= 1268; 98.5%) completed pre-admission contact hours. There were 19 respondents (1.5%) that did not complete contact hours. Of the 19 respondents, 13 thought contact hours would have been beneficial, as hours would have allowed greater exposure to the field. One respondent felt contact hours allow students to have a better grasp on goniometry, manual muscle testing, charting, and billing practices. Two of the 19 respondents did not think that contact hours would have been beneficial.

Respondents who completed contact hours

Of the respondents completing pre-admission contact hours, 1191 indicated contact hours were required for admission to their professional program. Further analyses demonstrated 1142 found the hours to be beneficial. Only 82 respondents (7%) reported they completed contact hours *only* as a requirement for admission to their program.

Ninety-five percent of respondents found benefit in performing contact hours and 75% stated contact hours assisted them in making a career choice of physical therapy. Additionally, 69% stated observation hours helped them determine a specific patient/client population with which they would like to work; 71% indicated hours were beneficial for deciding on a specific setting in which to work. This information is congruent with research by Miller et al²⁷ which found observation hours were influential in determining what patient/client population a student chooses to work with. Respondents also indicated observation hours helped them with communication skills

with patients/clients (76%). See table 2 for specific responses to the questions from the Likert scale.

Table 2. Frequencies and Percentage of Likert Responses: Effects of Pre-Admission Clinical Contact Hours on Career Choice, Program Choice, Patient/Client Population Choice, Setting Choice, and Success within a Program.

Observation hours:	Disagree f	Neutral f	Agree f	Total f (%)
Were beneficial to me	38 (3)	15 (1%)	1009 (95)	1062 (100)
Helped me decide on physical therapy as a career	88 (8)	67 (6%)	897 (85)	1052 (100)
Helped me decide to apply to a particular physical therapy program	423 (40)	278 (27%)	339 (33)	1040 (100)
Decide what specific patient/client population I want to work with	187 (18)	137 (13%)	733 (69)	1057 (100)
Determine a specific setting I would like to work in	183 (17)	120 (11%)	756 (71)	1059 (100)
Helped me perform well in my academic coursework in my professional physical therapy program	297 (28)	193 (18%)	556 (53)	1046 (100)
Helped me perform well in my clinical experiences and/or internships	186 (21)	152 (17%)	534 (61)	872 (100)
Helped me with my communication skills with patients/clients	154 (15)	92 (9%)	784 (76)	1030 (100)

Results from this survey indicate observation hours are advantageous to students pursuing physical therapy school. This coincides with previous research^{26, 27, 28} indicating students were greatly impacted by their experiences with observation hours.

Survey participants were asked to rank the top three settings where they performed observation hours, based on time spent in that setting. The most accessed site was outpatient orthopedics (1024 respondents), followed by acute care (439 respondents), and inpatient rehab (435 respondents). See Table 3.

Table 3. Frequencies and Percentages: The Top Three Settings in which Respondents Completed Most of Their Contact Hours

Setting in which the Respondent Completed his or her Contact Hours	Rank 1: MOST Contact Hours	Rank 2: SECOND Most Contact Hours	Rank 3: THIRD Most Contact Hours	Total Respondents for the Site
	f (%)	f (%)	f (%)	f
Acute care	80 (18%)	198 (45%)	161 (37%)	439
Extended Care Facility	25 (13%)	84 (43%)	87 (44%)	196
Home Health	2 (4%)	15 (28)	36 (3%)	53
Inpatient Rehab	79 (18%)	233 (54%)	123 (28)	435
Occupational Health	6 (326%)	5 (26%)	8 (42%)	19
Outpatient Ortho	769 (75%)	187 (18%)	68 (7%)	1024
Outpatient Neuro	18 (15.7%)	45 (39%)	52 (45%)	115
Pediatrics	55 (21%)	112 (40%)	108 (39%)	278
Sports Medicine	44 (20%)	111 (50%)	69 (31%)	224

Outpatient orthopedics appears to be the most frequently accessed setting for observation hours; it is unclear whether this is due to a student only having knowledge of

outpatient orthopedics, student interest in that setting, or if outpatient orthopedics was the most accessible location. However, outpatient orthopedics was not reported as a setting that was difficult to access, so it could be perceived this is the most accessible setting for observation.

Of all respondents, 493 (45%) reported difficulty accessing a site. Challenges were reported in the acute care setting by 351 students; inpatient rehabilitation by 187 students; and pediatric setting by 130 students. See Table 4.

Table 4
Frequencies: Challenges in Access of Any Setting and Challenges in Access of a Particular Setting*

Setting	f
Respondents indicating difficulty or denial in obtaining access to any type of setting	493
Acute care	351
Extended Care Facility	40
Home Health	91
Inpatient Rehab	187
Occupational Health	32
Outpatient Ortho	14
Outpatient Neuro	74
Sports Medicine	27
Pediatrics	130

^{*}Each respondent could report challenges in more than one setting.

As noted previously, challenges in accessing a site were reported by 493 respondents, who could report difficulties in more than one site. The top 3 challenges in

accessing acute care included: the site was unwilling to accept students; the pre-access orientation and training were too time consuming; and the legal, health, and background requirements impacted access. One hundred seventeen respondents were denied access to the inpatient neurological setting and 76 were denied access to a pediatric setting. The sites unwillingness to accept students was the most reported challenge, with 285 of the 493 respondents reporting this challenge. See Table 5.

Table 5. Frequencies: Types of Challenges Experienced when Gaining Access to a Setting

Challenges Experienced	All Settings f	Acute f	IP Rehab f	Pediatrics f
Time conflicts	101	76	39	27
Difficulty of travel to site	49	29	19	20
Site was too busy	140	105	56	41
Training and orientation were too time consuming	175	144	81	43
Site not willing to accept students	285	232	117	76
Legal, Health, and Background requirements	130	110	59	22
Poor communication with site	115	92	50	26
Lack of overall organization	116	89	53	32

Many of the 39 open-ended narrative responses to the question 'What were challenges you experienced gaining access to contact hours or that impeded your choice

of setting?" reiterated the options found in Table 5, however, some were noteworthy. There were individual responses stating a lack of knowledge about the settings in which physical therapists work, therefore a lack of variety in their selections. Researchers perceived this as a lack of promotion of physical therapy as a career. We feel that practitioners and educators need to promote different settings to increase knowledge of our profession. In addition, physical therapy programs could recommend observation hours to be performed in 3 or more settings in order to promote understanding of the profession and its variety of settings.

Three respondents, those with current employment or families during observation hour experiences, reported difficulty financially supporting their prerequisite experiences. These respondents indicated time off from work and/or paying for childcare had a significant impact on their observation hour experiences. This is an important consideration for physical therapy schools to possibly limit the number of hours required.

There were differences between regions as to whether or not a student experienced difficulty when accessing a site, see Table 6. In the Northeast region, the majority of respondents indicated they experienced no difficulty accessing a site (64%). The same was true for the Midwest region and the South, with 64% and 58% of respondents from these regions indicating no difficulties. In the West, 63% of respondents \underline{did} experience difficulties, and this finding contributed to a significant Chi Square statistical analysis (X2 [n = 121, df = 3), P = 41.717).

Of the 493 respondents that indicated challenge(s) in accessing a site, 234 continued to pursue access and completed contact hours at the site. See Table 6.

Differences in the completion of the contact hours, after challenges, were found between

regions. In the Western region 58% of respondents with challenges continued to pursue access; in the Midwest region, only 37% continued to pursue access at a given site. The Western and Midwest regions contributed to the significant Chi-square. X2[n = 73, df = 3), P = 11.726.

Table 6. Respondents with Difficulty Accessing Sites and Respondents that Continued to Pursue Access. Frequencies and Percentages by Region

	Respondents		
Region	Experienced Difficulty Accessing a Site f (%)	Did NOT Experience Difficulty Accessing a Site f (%)	
Northeast	52 (36%)	94 (64%)	
South	140 (42%)	193 (58%)	
Midwest	115 (36%)	207 (64%)	
West	121 (63%)	71 (37%)	
	Respondents		
Region	Continued to Pursue Access f (%)	Did NOT Continue to Pursue Access f (%)	
Northeast	28 (54%)	24 (47%)	
South	72 (51)	68 (49%)	
Midwest	42 (37%)	73 (64%)	
West	70 (58%)	51 (42%)	

There were 841 responses to the question asking the participants to describe a quality experience for pre-professional contact hours. Of the 841 participants, many of them

responded with multiple statements. These were separated out, making a total of 1294 items coded.

More than 50% of the respondents reported communication and education as important factors to strengthen contact hour experiences. Survey respondents stated physical therapists enhanced experiences by discussing with the observer what they were performing with the patient and why they were doing it. Additionally, therapists being willing to answer questions were identified as making a quality experience. This information is useful for physical therapists to continue educating and communicating with students in order to enhance their contact hour experiences and carryover into learning techniques in their professional program.

Another common category indicated was the student observing was allowed to interact with the therapist and the client during treatment sessions. Some also reported being allowed to be "hands-on", as allowed by law, was the most beneficial to them, as they were not just silently observing the sessions. They indicated that this helped them to gain confidence in interacting with patients/clients in their academic career.

Additionally, responses indicated that a variety of settings, treatment interventions, and patients/clients was an aspect of a quality observation experience.

They discussed that having an exposure to more than one of these allowed them to gain a broader aspect of what physical therapy entails, and allows them a wider base of knowledge for the future.

Examples of answers to specific categories are outlined below. See Table 7 for additional responses.

Communication and Education (n=436, 52%):

- "A PT that is willing to educate on the diagnoses and interventions seen during contact hours"
- "A PT who is good at talking through their thought process and explaining why they are doing what they are doing"
- "[PT] Explanations of things being done, openness of PT to answer questions"

Interaction and Hands-on Experience (n=196, 23%)

- "The willingness of the PT to allow the volunteer/student to participate in/ask questions about the treatments"
- "Ability to work hands-on with patients"
- "Allow for interaction with patients, families and other professionals"

Variety (n=194, 23%)

- "Observing at a variety of settings"
- "Able to view a variety of patients, experience a variety of settings"
- "Diversity of clients/cases"

Other noteworthy themes included:

- Attitude of the clinical instructor and/or the student (n=78, 9%)
- The experience and quality of the clinical instructor (n=77, 9%)
- Exposure and explanation of what the field of physical therapy entails.
 (n=82, 10%)

Table 7. Frequencies and Percentages of Responses Indicating a Quality Clinical Experience

Category	f (%)
Communication/Education	436 (52)
Hands on/Interaction with Patients	196 (23)
Variety- Settings, Patients, Treatments	194 (23)
Exposure/Explanation of Physical Therapy	82 (10)
Attitude of Therapist, Site, or Student	78 (9)
Experience/Quality of Therapist	77 (9)
Actual Observation of Physical Therapist	38 (5)
Number of hours (low or high)	27 (3)
Learning/Welcoming Environment	25 (3)
Consistency: Being at One Site, Shadowing One PT, Seeing Patient Progression	19 (2)
Size and/or Busyness of the Site (Small or Large)	14 (2)
Accessibility and Flexibility of Site/PT	13 (2)
Working as an Aide or Tech	12 (1)
Personal Interest in the Career/Setting	8 (1)
Student Background Knowledge/Experience in PT	8 (1)
Evidence Based Practice	5 (1)
Clinical Instructor Understands Limited Knowledge of Undergraduate Student	5 (1)
Should Not Be a Requirement	3 (0.4)
Other	54 (6)
Total Requirements	841
Total Items	1294

A majority of respondents (75%) reported they received a letter of recommendation for admission from a physical therapist who helped them with preadmission clinical contact hours. Observation hours are increasingly important for relationship formation and networking; they may be useful for exposure to a specific site for future employment, upon graduation. Additionally, if a student is able to display their interpersonal skills in his/her interactions with patients, they could benefit from a letter of recommendation from a physical therapist. Letters of recommendation have not been researched for their benefit in physical therapy school admissions or student performance in a professional program.

Implications for Professional Programs and Clinical Sites

In order to further promote physical therapy as a career, physical therapists should be open to communicating and involving students during observation hour experiences, as much as possible. Many students reported the most beneficial experiences were those where the physical therapist was openly communicating with them, rather than having the student observe their treatment sessions. Respondents reported better experiences when they were allowed and encouraged to ask questions during their observation experiences. Communication was a common narrative response reported when asked, "What makes a quality observation hour experience?"

While communication was the main response to the question of what makes a quality experience, there were a few others that were represented strongly. These included a variety in settings, patient diagnoses, and treatment techniques. Respondents also stated they received more benefit where they were able to interact with the physical

therapist and the patient during observation, rather than just watch from a distance, or not even be in the room at all during therapy sessions.

It may be beneficial for medical sites to have easily accessible information on their websites pertaining to contact hours, including: contact personnel, objectives for observation hour experiences, and any pre-requisite information necessary for completion of observation hours at that site.

The results of this survey serve a great purpose for physical therapy school admission processes. A majority of students are finding value in observation hours for access to the profession, increased knowledge of settings in which physical therapists work, and in order to make connections among schoolwork with observation hours. Due to these benefits, the researchers' feel observation hours should remain a required item in admission processes. In addition, observation hours assist some students in choosing physical therapy as a career, which is helpful for student retention in professional programs.

Limitations

Despite the researchers' best efforts to have every physical therapy program from all states participate in this survey, adequate representation from every state that has a physical therapy program was not attained. Surveys did not reach all programs in the United States due to a variety of reasons including: incorrect contact information for program representatives and technical issues such as a firewall from unknown recipients.

This survey relied on respondents' memory of their experiences, including number of hours required by their program and number of hours the students personally performed for observation; some persons may not accurately remember these specific

numbers, which limited the data that we received from respondents. In addition, we asked for information regarding population sizes in which individuals completed their contact hours; some individuals may not know the population size of the community in which they performed hours, so those numbers have the potential to be inaccurate. Also, the community/population size where these students completed hours may not be the same area that their physical therapy program is located, therefore comparisons could not accurately be made between regions and accessibility of hours.

Another limitation of this survey research was some questions and wording were left up to the interpretation of the individual taking the survey; some of our questions were misconstrued as evidenced by some responses. This survey also lacked information from every respondent due to the ability to skip questions without answering; this had minimal effect on our data, however, it was a limitation of the study.

Future Research

Future research should focus on the optimal number of contact hours required by a program for student performance in professional physical therapy programs. As indicated by comments in our survey, some respondents reported 60 hours as an optimal number of hours. Additionally, research should be conducted to assess the value of observation hours in many different settings and their effects on career choice, setting choice, and patient/client population. It would also be important for the student to contact sites to determine what their requirements are for acceptance/non-acceptance for observation.

Further research surveying physical therapists and faculty members at physical therapy programs will assess the accessibility of hours in a professional setting.

Comparisons should be made between faculty, clinicians and students perception of observation hours.

CHAPTER 4 CONCLUSION

Based on the information gathered, we can assume that the majority of professional physical therapy students completed contact hours prior to admission to their professional programs, and a large majority found them to be beneficial to them in multiple areas of their academic career. There were more students who indicated they did not have any difficulty accessing sites, than those who did experience difficulty. There were differences between regions whether or not difficulties were experienced, with the Western region being the only region that experienced a significant amount of difficulty. There has been some speculation in the professional physical therapy education setting that pre-professional observation hours are too difficult to access, and are not beneficial to the students. We found the opposite to be true, with majority of respondents indicating they found them beneficial. It was also found that there were more students that did not have any difficulty in accessing a site compared to those that did.

For promotion of physical therapy as a career, the researchers feel clinics and physical therapists should be open to accepting pre-physical therapy students for observation hours and be willing to communicate the treatment practices with these students. As indicated in this survey, quality experiences revolve around communication and education from the physical therapist, and being able to interact with the patients/clients. It is suggested that pre-professional students seek out a variety of

different clinic settings, and ask to see a variety of patients within each setting. In addition, it may be beneficial for clinics to employ clear guidelines and contact information for observation hour experiences. Suggestions include making websites user-friendly, and having a designated contact person who is responsible for setting up the pre-professional student observations. Contact hours were found to be beneficial by the respondents of this survey; therefore, we feel physical therapy programs should continue to use them as admission requirements for increased understanding of physical therapy as a career.

REFERENCES

- 1. Direct access at the state level. http://www.apta.org/StateIssues/DirectAccess/. Updated 2015.
- 2. Physical therapist admissions process. http://www.apta.org/ProspectiveStudents/Admissions/PTProcess/. Updated 2013.
- 3. Physical therapist centralized application service 2013-2014 applicant data report. http://www.ptcas.org/uploadedFiles/PTCASorg/About_PTCAS/PTCASApplicant DataRpt.pdf. Updated 2014.
- 4. Commission on accreditation in physical therapy education. http://www.capteonline.org/home.aspx. Updated 2015.
- 5. Zipp GP, Ruscingno G, Olson V. Admission variables and academic success in the first year of the professional phase in a doctor of physical therapy program. *J Allied Health*. 2010;39(3):138-142.
- 6. Utzman RR, Riddle DL, Jewell DV. Use of demographic and quantitative admissions data to predict academic difficulty among professional physical therapist students. *Phys Ther*. 2007;87(9):1164-1180.
- 7. Jewell DV, Riddle DL. A method for predicting a student's risk for academic probation in a professional program in allied health. *J Allied Health*. 2005;34(1):17-23.
- 8. Nuciforo M, Litvinsky Y, Rheault W. Variables predictive of admission to US physical therapist education programs. *J Phys Ther Educ*. 2014;28(3):112-119.
- 9. Shiyko MP, Pappas E. Validation of pre-admission requirements in a doctor of physical therapy program with a large representation of minority students. *J Phys Ther Educ*. 2009;23(2):29-36.

- 10. Wheeler E, Arena R. The impact of feeder school selectivity on predicting academic success in an allied health professional program. *J Allied Health*. 2009;38(3):e79-83.
- 11. Dockter M. An analysis of physical therapy preadmission factors on academic success and success on the National Licensing Examination. *J Phys Ther Educ*. 2001:15(1):60-64.
- 12. Kosmahl EM. Factors related to physical therapist license examination scores. *J Phys Ther Educ*. 2005;19(2):52-56.
- 13. Thieman TJ, Weddle ML, Moore MA. Predicting academic, clinical, and licensure examination performance in a professional (entry-level) master's degree program in physical therapy. *J Phys Ther Educ*. 2003;17(2):32-37.
- 14. Dillon LS, Tomaka J. NPTE predictors in hispanic-serving institution's physical therapist education program. *J Phys Ther Educ*. 2010;24(2):14-18.
- 15. Hollman JH, Rindflesch AB, Youdas JW, Krause DA, Hellyer NJ, Kinlaw D. Retrospective analysis of the behavioral interview and other preadmission variables to predict licensure examination outcomes in physical therapy. *J Allied Health*. 2008;37(2):97-104.
- 16. 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. *Phys Ther*. 2007;87(9):1181-1198.
- 17. Youdas J, Bogard C, Suman V. Level of intrateam agreement on candidate scores in a structured interview process. *J Allied Health*. 1996;25(4), 303-313.
- 18. Roehrig S. Prediction of student problems in a baccalaureate physical therapy program. *J Phys Ther Educ*. 1990;4(1), 26-30.
- 19. Nayer M. Admission criteria for entrance to physiotherapy schools: how to choose among many applicants. *Physiother Can.* 1992;44(3), 41-46.
- 20. Gabard D, Porzio R, Oxford T, Braun R. Admission interviews: questions of utility and cost in Masters of Physical Therapy programs in the United States. *Physiother Res Int.* 1997;2(3), 135-149.
- 21. Watson C, Barnes C, & Williamson J. Determinants of clinical performance in a physical therapy program. *J Allied Health*. 2000;29(3), 150-156.

- 22. Hayes S, Fiebert I, Carroll S, MagillR. Predictors of academic success in a physical therapy program: is there a difference between traditional and nontraditional students?. *J Phys Ther Educ*. 1997;11(1), 10-16.
- 23. Bezner J, Boucher B. The influence of personality type on decision making in the physical therapy admission process. *J Allied Health*. 2001;*30*(2), 83-91.
- 24. Andrews A, Johansson C, Chinworth S, Akroyd D. Cognitive, collegiate, and demographic predictors of attrition in professional physical therapist education. *J Phys Ther Educ*. 2006;20(1), 14-21.
- 25. Balogun J, Karacoloff L, Farina N. Predictors of academic achievement in physical therapy. *Phys Ther.* 1986;66(6), 976-980.
- 26. Gleeson PB, Utsey C. An examination of observation hours used as an admission criterion for physical therapist programs in texas. *J Phys Ther Educ*. 2003;17(1):65-73.
- 27. Miller S, M., Ciocci S, R. Agents of change: Undergraduate students' attitudes following observations of speech-language pathology service delivery. *J Allied Health*. 2013;42(3):141-146.
- 28. Mitchell TL, Dunham DW, Murphy HJ. Candidate's questionnaire: An alternative to an admissions interview for applicants to a dental hygiene program. *Can J Dent Hyg.* 2006;40(2):57-57-8, 61, 63 passim.
- 29. Weiss AJ, Elixhauser A. Overview of Hospital Stays in the United States, 2012. HCUP Statistical Brief #180. October 2014. Agency for Healthcare Research and Quality, Rockville, MD. http://www.hcup-us.ahrq.gov/reports/statbriefs/sb180-Hospitalizations-United-States-2012.pdf.
- 30. Beisner K. Aggregate program data. *CAPTE*. 2015. http://www.capteonline.org/uploadedFiles/CAPTEorg/About_CAPTE/Resources/Aggregate_Program_Data/AggregateProgramData_PTPrograms.pdf
- 31. Educational Testing Service. http://www.ets.org/s/gre/pdf/concordance_information. Updated 2015.
- 32. Qualtrics, 2009. Copyright 2015. Provo, Utah, USA. Version 10-12, 2015. http://qualtrics.com
- 33. IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.

APPENDIX A



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Institutional Review Board

Twamley Hall, Room 106 264 Centennial Drive Stop 7134 Grand Forks, ND 58202-7134 Phone: 701.777.4279

Fax: 701.777.6708

June 9, 2015

Principal Investigator:

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

Project Title:

Accessibility and Perceived Value of Pre-Admission Clinical Contact

Hours: The Physical Therapy Student Perspective

IRB Project Number:

IRB-201506-369

Project Review Level:

Exempt 2

Date of IRB Approval:

06/09/2015

Expiration Date of This

00/03/2013

Approval:

06/07/2018

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

While I Booker

IRB Coordinator

MLB/jle

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 t typed.	he following questions r	egarding your researd	h. Handwritten forms are not accepted – responses must be
If you answered	ers included in the resea "Yes" to the above quest Form". If you answered	ion, this research does n	No not qualify as exempt. Please fill out and submit a "Human tion 2a.
		ch? [Yes [on, please skip question	No 2b and continue to question 3. If you answered "Yes", continue
behavior w i If you answe	ith researcher interactio	on with the subjects? a and 2b, this research of	ures? Does the research involve the observation of public Yes No loes not qualify as exempt. Please fill out and submit a "Human question 3.
linked to the sul	bjects (subject name, so "Yes" to the above quest	cial security number, l	cts <u>cannot</u> be identified, either directly or through identifiers pirth date, coding, etc.)? Yes No a 3b and continue with the rest of the form. If you answered
criminal or _□_ Yes	civil liability, or be dam No ered "Yes" to the above q	naging to the subjects'	of the research reasonably place the subjects at risk of financial standing, employability, or reputation? Description of the research reasonably place the subjects at risk of financial standing, employability, or reputation? Description of the research reasonably place the subjects at risk of financial standing at risk of financial standing at risk of financial standing.
If you answered	"Yes" to the above quest	ion, this research does n	r image recordings of subjects? Yes No not qualify as exempt. Please fill out and submit a "Human requested below:
Principal Invest	igator: Renee Mabey	r; Cindy Flom-Mela	nd
Telephone: (70	01) 777-2831	E-mail Ad	dress: renee.mabey@med.und.edu
			cindy.flom.meland@med.und.edu
Complete Mailin	g Address: UND SMI	HS Room 1510	
	501 N Col	umbia Road Stop 90	937
	Grand For	ks, ND 58202-9037	
School/College:	School of Medicine Sciences	and Health	Department: Physical Therapy
Student Advisor	r (if applicable):		
Telephone:		E-mail Ad	ldress:
Address or Box #			
School/College:			Department:

^{***} All IRB applications must include a Key Personnel Listing

Project Title: Accessi	bility and Percei	<u>ved Value of Pre-Admissi</u>	ion Clinical Contact Hours: The Phys	ical
Therapy Student Per	rspective			
Proposed Research Be	ginning Date:	06/01/2015	Exempt research will be approve 3 years from the original approva	•
Funding agencies supp	oorting this research	h: None		
(A copy of the funding	proposal for each a	gency identified above MUST	be attached to this proposal when submitted	(.)
☐ YES or ⊠ NO	If yes, submit on a Principal Investigat	separate piece of paper an addi-	have a financial interest in the results of this p itional explanation of the financial interest. T ed with this project should have a Financial In t.	`he
☐ YES or ⊠ NO			nother organization outside the University of American Indian tribes/reservations)?	`North
☐ YES or ⊠ NO	Will any data be co	ollected at or obtained from and	other organization outside the University of N	orth Dakota?
If yes to either of the previous two questions list all institutions:	,			
letter and should be proposed any external site w	rinted on organizat	ional letterhead. ill be conducted have its own I	clude the name and title of the individual si TRB? YES or NO Is study? YES or NO	gning the
		7-4279 for additional requirement		
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(include the name and a			a phone number for that person)	nung
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YES or NO	Continuation/Ren		r NO Student Research Project ed project? If yes, submit a signed Protocol C	Thanas
YES or NO			th the changes bolded or highlighted.	mange
Please provide additiona	al information regard	ling your research by respondir	ng to questions 5-11 on a separate sheet of pa	per.
5. In non-technical la	nguage, describe tl	ne purpose of the study and st	tate the rationale for this research.	
	ects be informed of be distributed/colle	the research? If you will be ha	aving subjects sign a consent form, justify wh rovided? What is the suspected duration of so	

- 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 <u>study information sheet</u> 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 Re	lease of Educational Record Form (students and me	dical residents only);
Investigator Letter of Assuran	ce of Compliance;	• / ·
Key Personnel Listing;		
☐ Surveys, interview questions,	or educational tests;	
Printed web screens (if survey	is over the Internet);	
Advertisements, including rec	ruitment emails/letters and social network postings;	and
Informed consent statement.	• -	
IRB approval to conduct research		

statements provided above; this rese	the above information is accurate and that this research does not involve prisoners, but if a subject becomes	omes a prisoner, I will notify the IRB.
ense Maeren 5/29/15	Condy Florn-Woland Date:	5-29-15
(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.

Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Physical Therapy Student Perspective

Purpose of study and rationale

The purposes of the study are twofold: (1) to assess the perceived value of contact hours and (2) to determine the accessibility of hours in a variety of settings. The results of the survey may be used to allow physical therapy programs to make deliberate, informed decisions regarding admissions criteria in their respective programs.

Rationale: Other studies^{1,2,3} have found that observations of professional physical therapists in the community place high demands on the clinicians and the clinic to accommodate undergraduate students. In the review of literature, we sought out evidence related to value of observation hours in a clinical setting.

In 2003, Gleeson et al¹ surveyed four groups of individuals: prospective physical therapy students, first year physical therapy students, 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 impacting their decision to apply to physical therapy school.

Miller et al² conducted a survey distributed to undergraduate communication sciences and disorders students. The findings supported the idea that observations of a speech language pathologist have a substantial effect on students' career choices, including the patient population in which they decide to work.

In a 2006 study by Mitchell et al³, results indicated that a dental hygiene students' performance in the first year of their program was influenced by their understanding of the profession prior to admittance to their program. They found that students with great understanding of the profession could overcome disadvantages related to low didactic ability. This indicates that persons whom familiarize themselves with their academic program's professional field have the ability to perform better in the first year of their coursework.

There is minimal data published associated with students' and faculty perceived value of observation hours in a physical therapy setting. We were unable to find any literature published regarding accessibility of physical therapy observation hours separated by setting. In addition, there is limited published data comparing students perceptions of observation hours in a physical therapy setting. With the healthcare environment ever-changing, it is believed that there are fewer clinical sites willing to accept students for observation. This change has made it more difficult for students to gain access to hours that are a requirement at many professional physical therapy programs in the country. There is limited new research on the benefit of observation hours in the current healthcare environment.

Study Procedures:

This study will be a survey distributed to students currently enrolled in accredited professional physical therapy programs. We will be sending the survey to approximately 30 physical therapy programs in the United States representing all geographical regions. We will be distributing the survey through e-mails to either the program Chair or the Director of Clinical Education with whom we have contact with, and the contact person will then distribute the link to the online survey to all students currently enrolled in their respective program. We will also be sending two reminder e-mails in the weeks following the initial request. The data will be collected and stored utilizing Qualtrics survey software and analyzed using an SPSS output. The results of the survey will be utilized for poster and platform presentations, as well as to develop a manuscript. No compensation for participation will be provided. We will provide a summary of abbreviated results of our study to participating programs upon their request. The expected participation time will be 5-10 minutes.

Where will the research be conducted?

Research will be conducted through an online survey utilizing Qualtrics software which can be completed anywhere that the participant has access.

Data that will be recorded:

We will request that the participants give age, gender, year in school, state in which they conducted their contact hour experience, what settings they performed their hours in and the number of hours conducted. The participants will be asked to describe any challenges that they encountered while attempting to contact or set-up a contact hour experience before entering a professional program. We will also request that the participants answer questions on their perception of benefit that they gained from completing observation hours.

How will data be recorded and stored?

Participants will be completing the survey online and individual names will not be collected in the survey. Demographic data and responses will be analyzed together to determine the specific difficulties that each region may experience. We will be reporting the results in aggregate. There will be no attempt to locate or track the IP addresses of the computers utilized to complete the online survey. The only people with access to the data will be the faculty and students conducting the research and a hard copy of the responses will be stored in a locked cabinet separate from the demographics in the UND Physical Therapy department. There will also be an electronic copy of the results stored on several password protected computers. Access to these computers will be limited to the students and faculty conducting this research. The data will be stored for a minimum of three years after the time of completion of the study. This study may be used as an ongoing research topic, at which

time the results will be retained for further research purposes of a time period longer than three years if necessary.

Procedures implemented to protect confidentiality of data collected from participants:

We will not be collecting individual names or which program they are attending. We will be reporting the responses in aggregate with no ability to discern individual responses. We will be storing the hard copies of the data in locked file cabinets, and the electronic data on password protected computers with access only granted to students and faculty leading the research.

Nature of the subject population and the estimated number of subjects:

The subject population will be current professional physical therapy students in the United States. We are asking approximately 30 programs to participate, with an estimated 3,000 students invited to participate in the survey.

References:

- 1. Gleeson, P., & 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.

Informed Consent

Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Physical Therapy Student Perspective

You are invited to participate in a research study designed to analyze the accessibility and perceived value of observation hours prior to acceptance to a professional physical therapy program. You have been invited to participate as you are currently enrolled in a professional physical therapy program.

This survey has two parts: a section with questions about your 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 any of the questions 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, Dr. Cindy Flom-Meland at 701-777-2831 or cindy.flom.meland@med.und.edu, Katie Anderson at katie.anderson.2@my.und.edu, or Megan Volden at megan.volden@my.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 you were 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, Katie Anderson, SPT and Megan Volden, SPT Renee Mabey, PT, PhD and Cindy Flom-Meland, PT, PhD, NCS

Part 1: Contact hours

Did you complete contact hours prior to admission to your professional physical therapy program? Yes No
You indicated that you did not complete contact hours prior to admission, do you feel that contact hours would have been beneficial? Why or why not?
You indicated that you completed contact hours; were they a requirement for admission to your professional physical therapy program? Yes
○ No
How many hours were required for admission to your professional physical therapy program?
Why did you complete pre-admission contact hours?
Professional program admission requirement only; did not perform them for my own personal benefit
Ontact hours assisted me in determining physical therapy as a career choice

Outpatient Ortho
Outpatient Neuro

Sports Medicine

Other (please specify):

Pediatrics

You indicated that you experience site(s)?	ced difficulties accessing a site for observation, did you continue to pursue contact hours at the
Yes, I completed contact ho	urs at the site(s) despite the difficulties experienced
○ No, I did not continue to pur	sue access for observation; there were too many obstacles
What were challenges you expe Please check all that apply:	rienced gaining access to contact hours or that impeded your choice to observe at a certain location?
There were time conflicts wi	th the clinic site and/or physical therapist
Difficulty of travel to facilities	or distance was too far
The site was too busy	
☐ There were requirements of	training and/or orientation that were too time consuming
☐ Lack of site willingness to a	ccept students for observation experience
[] Legal, health, or background	d requirements (i.e. background check, verification of health status, HIPAA concerns, etc.)
Lack of or poor communicat	ion with site/volunteer coordinator
Lack of overall organization	of site for access to contact hours
Other (please specify):	
○ Yes○ No	iich you were unable to access for contact hours due to denial by the site?
You indicated you were you una access:	ble to access a site for contact hours due to denial; please select the site(s) you were unable to
☐ Acute Care	
Extended Care Facility (LTC	, TCU)
☐ Home Health	
Inpatient Rehab	
Occupational Health	
Outpatient Ortho	
Outpatient Neuro	
Pediatrics	
Sports Medicine	
Other:	
Using the following scale, please	e rate the following statements: Neither
	Strongly Somewhat Agree Nor Somewhat Strongly Disagree Disagree Disagree Agree Agree N/A
Observation hours were	1177

/2015			Qualtrics Sur	vey Software				
beneficial to me.		Ü	0	O	0	0	()	
Observation hours helped me decide on physical therapy as a career.	(_)	9	0			0	٥	\bigcirc
Observation hours helped me decide to apply to a particular physical therapy program.	()	()	0	0	0	Ō	Ö	0
Observation hours helped me decide what specific patient/client population I want to work with (i.e. pediatric, geriatric, athletic, neurologic, etc.).	\circ	⊙	<u></u>	0	0	0	0	Ó
Observation hours helped me determine a specific setting I would like to work in (i.e. outpatient, acute care, long term care, etc.).	0	0	0	0	0	0	0	9
Observation hours helped me perform well in my academic coursework in my professional physical therapy program.	0	0	O	Ç	0	0	0	0
Observation hours helped me perform well in my clinical experiences and/or internships as a student physical therapist.	0	0	0	0		0	0	٥
Observation hours helped me with my communication skills with patients/clients.	O	O	0			\Diamond		1
Other (please specify).	Ö	9	0	\circ	\circ	0	0	٥
Did you receive a letter of reference professional physical therapy prog Yes No In your opinion, what makes a qual program? Have you had a career prior to atte	ram? ity experienc	e for contact	hours with a	a physical the	erapy site pri	ŕ		
○ No								
110								
Choose the field of your previous c Agricultural Business and Finance	areer from th	e list below:						
○ Computers								
Construction								

☐ Education	
= COOCAUOTI	
Engineering	
Health and Medical	
☐ Hospitality	
☐ Law and Criminal Justice	
Media	
Military	
Office and Administrative	
Psychology	
Sales	
○ Service	
Science	
(i) Technology	
Transportation (including airline pilots, taxi and truck drivers, train operato	rs, etc.)
Part 2: Demographic data Demographic data	
What is your age (in years)?	
What is your gender?	
○ Male	
○ Female	
In what state is your professional physical therapy program located?	
The state of the s	
What year are you in your professional physical therapy program?	
The state of the s	
Do you have any additional comments?	

Informed Consent

Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Physical Therapy Student Perspective

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Thank you, Katie Anderson, SPT and Megan Volden, SPT Renee Mabey, PT, PhD and Cindy Flom-Meland, PT, PhD, NCS

Flom-Meland, Cindy

From:

Volden, Megan <megan.volden@my.und.edu>

Sent:

Friday, May 29, 2015 8:31 AM

To:

Flom-Meland, Cindy

Subject:

Survey E-mail

Dear Program Chairs and Directors of Clinical Education,

We are students at the University of North Dakota, and we have developed the survey, "Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Physical Therapy Student Perspective" as the beginning of a line of research into the challenges that pre-physical therapy students face while attempting to complete observation hours prior to admittance to a professional program. We are also interested in the benefits that students find that they gain out of their observation experiences.

Please forward this survey to your currently enrolled students for them to complete. Thank you for your time. Katie Anderson, SPT and Megan Volden, SPT

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

Greetings Physical Therapy Students,

We have developed the survey, "Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Physical Therapy Student Perspective" to gather data related to the availability and perceived value of observation hours prior to being accepted into a professional physical therapy programla. This research is faculty-led with Dr. Renee Mabey and Dr. Cindy Flom-Meland as the principal investigators. It is the beginning stages of a larger study. We are Doctor of Physical Therapy students at the University of North Dakota and we are conducting this survey research for fulfillment of our scholarly project for graduation. The results of this study will provide information regarding observation hours to analyze the effectiveness and value in a physical therapy educational setting.

This survey should take you no more than 10 minutes to complete. We will be asking you questions based on your experiences with pre-admission observation hours, as well as limited demographic data that will be reported in aggregate. The survey will close Sunday July 19th, at midnight.

Click here for the link:

https://und.qualtrics.com/SE/?SID=SV_1ZINkyUhTiM4O2N

We appreciate your willingness to complete this survey. Thank you for your time!

Katie Anderson, SPT

Katie.Anderson.2@my.und.edu

Megan Volden, SPT

Megan.Volden@my.und.edu

Renee Mabey, PT, PhD

Renee.Mabey@med.und.edu 701-777-2831

Cindy Flom-Meland, PT, PhD, NCS

<u>Cindy.Flom.Meland@med.und.edu</u> 701-777-2831

University of North Dakota Institutional Review Board

Michelle.Bowles@research.und.edu 701-777-4279



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Katie Anderson, SPT

Katie.Anderson.2@my.und.edu

Megan Volden, SPT

Megan.Volden@my.und.edu

Renee Mabey, PT, PhD

Renee.Mabey@med.und.edu

701-777-2831

Cindy Flom-Meland, PT, PhD, NCS

Cindy.Flom.Meland@med.und.edu

701-777-2831

University of North Dakota Institutional Review Board

Michelle.Bowles@research.und.edu

701-777-4279



STUDENT RESEARCHERS: As of June 4, 1997 (based on the recommendation of UND Legal Counsel) the University of North Dakota IRB is unable to approve your project unless the following "Student Consent to Release of Educational Record" is signed and included with your IRB application.

STUDENT CONSENT TO RELEASE OF EDUCATIONAL RECORD¹

Pursuant to the Family Educational Rights and Privacy Act of 1974, I hereby consent to the Institutional Review Board's access to those portions of my educational record which involve research that I wish to conduct under the Board's auspices. I understand that the Board may need to review my study data based on a question from a participant or under a random audit. The title of the study to which this release pertains is "Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Physical Therapy Student Perspective"

I understand that such information concerning my educational record will not be released except on the condition that the Institutional Review Board will not permit any other party to have access to such information without my written consent. I also understand that this policy will be explained to those persons requesting any educational information and that this release will be kept with the study documentation.

0781975	Katie Anderson
ID#	Printed Name
05/28/15	Katte anderson
Date	Signature of Student Researcher

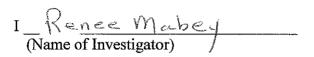
¹Consent required by 20 U.S.C. 1232g.

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Perceived Value of Pre-Admission Clinical C	Contact Hours: The Physical Therapy Student
Perspective .	
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0848072	Megan Volden
ID#	Printed Name
05/26/2015	Megan Volole
Date	Signature of Student Researcher

¹Consent required by 20 U.S.C. 1232g.

INVESTIGATOR LETTER OF ASSURANCE OF COMPLIANCE WITH ALL APPLICABLE FEDERAL REGULATIONS FOR THE PROTECTION OF THE RIGHTS OF HUMAN SUBJECTS



agree that, in conducting research under the approval of the University of North Dakota Institutional Review Board, I will fully comply and assume responsibility for the enforcement of compliance with all applicable federal regulations and University policies for the protection of the rights of human subjects engaged in research. Specific regulations include the Federal Common Rule for Protection of the Rights of Human Subjects 45 CFR 46. I will also assure compliance to the ethical principles set forth in the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research document, The Belmont Report.

I understand the University's policies concerning research involving human subjects and agree to the following:

- 1. Should I wish to make changes in the approved protocol for this project, I will submit them for review PRIOR to initiating the changes. (A proposal may be changed without prior IRB approval where necessary to eliminate apparent immediate hazards to the subjects or others. However, the IRB must be notified in writing within 72 hours of any change, and IRB review is required at the next regularly scheduled meeting of the full IRB.)
- 2. If any problems involving human subjects occur, I will immediately notify the Chair of the IRB, or the IRB Coordinator.
- 3. I will cooperate with the UND IRB by submitting Research Project Review and Progress Reports in a timely manner.

I understand the failure to do so may result in the suspension or termination of proposed research and possible reporting to federal agencies.

Investigator Signature

 $\frac{9/27/15}{\text{Date}}$

INVESTIGATOR LETTER OF ASSURANCE OF COMPLIANCE WITH ALL APPLICABLE FEDERAL REGULATIONS FOR THE PROTECTION OF THE RIGHTS OF HUMAN SUBJECTS

I	<u>Cindy</u>	Flom-Meland	
	(Name of In	vestigator)	

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Circly Flom-Moland 5-29-15
Investigator Signature Date

UNIVERSITY OF NO INSTITUTIONAL RE KEY PERSONNE

Names of Research Personnel First Name Last Name		Position (select from drop-down menu)	Highest Academic Degree (High School, B.S, M.A., Ph.D., M.D., etc.)		
1 Renee	Mabey	Faculty	Ph.D.		
2 Cindy	Flom-Meland	Faculty	Ph.D.		
3 Megan	Volden	Graduate student	N/A		
4 Katie	Anderson	Graduate student	. N/A		
5					
6					
7					
8					
9					
10					

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

RTH DAKOTA VIEW BOARD L LISTING

Licenses/Certifications	Responsibilities (check all that apply)				
(if applicable)	Consent Subjects	Recruit Subjects	Research Design	Intervention	Data Analysis
PT		\	V		
PT		V	V		V
N/A		7	V		V
N/A		7	V		V



UND.edu

Institutional Review Board

Twamley Hall, Room 106 264 Centennial Drive Stop 7134 Grand Forks, ND 58202-7134 Phone: 701.777.4279

Fax: 701.777.6708

September 10, 2015

Principal Investigator:

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

Project Title:

Accessibility and Perceived Value of Pre-Admission Clinical Contact

Hours: The Physical Therapy Student Perspective

IRB Project Number:

IRB-201506-369

Project Review Level:

Exempt 2

Date of IRB Approval:

09/10/2015

Expiration Date of This

Approval:

06/07/2018

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

Tichelle L Bookly

IRB Coordinator

MLB/jle

Cc: Chair, Physical Therapy

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; Cindy Flom-Meland
Telephone: 701-777-4854 E-mail Address: renee.mabey@med.und.edu
Complete Mailing Address: UND SMHS Room 1510
501 North Columbia Road Stop 9037
Grand Forks, ND 58202-9037
School/College: School of Medicine & Health Sciences Department: Physical Therapy
Project Title: Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Physical Therapy Student
Perspective
Proposal Number: 201506-369 Approval Date: September 3, 2015
THE CURRENT STATUS OF THE PROJECT IS (Check one)
Project currently in progress. Number of subjects enrolled is:
X 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.
Four questions are added to the survey. Three questions address the size of the community in which the student completed their observation hours. One question addresses the size of the community in which the professional PT program of the respondent is located. All participants would answer these questions.
In addition, the original survey was to be sent to one physical therapy program in each state. We have since developed an email list serve for access to all programs within the United States ($n = 282$). The results will be more generalizable and representative when the survey is sent to the population rather than a subset/sample. Qualtics technology will be able to accept the increased number of cases.
Changes are highlighted in the copy of the survey which is attached.
2. Does the change affect the study or subject participation (procedures, risks, costs, etc.)? Yes X No
Please explain:
3. Does the change affect the consent document? Yes X 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:
Kenee Maley 9-3-15 Cindy Flom-Maleund 9-3-15
Principal Investigator Date:
Student Adviser (if applicable) Date:

Informed Consent

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Thank you, Katie Anderson, SPT and Megan Volden, SPT Renee Mabey, PT, PhD and Cindy Flom-Meland, PT, PhD, NCS

Part 1: Contact hours

Did you complete contact hours prior to admission to your professional physical therapy program?
O Yes
O No
You indicated that you did not complete contact hours prior to admission, do you feel that contact hours would have been beneficity Why or why not?
You indicated that you completed contact hours; Were they a requirement for admission to your professional physical therapy program?
O Yes
○ No
How many hours were required for admission to your professional physical therapy program?
Why did you complete pre-admission contact hours?
Professional program admission requirement only; did not perform them for my own personal benefit

1/8

Ontact hours assisted me in determining physical therapy as a career choice

0	Professional program requirement and I found them to be beneficial
	re your pre-admission physical therapy contact hours volunteer or work related? Please identify the number of hours in each
setti	
	Volunteer/observation
	Work
setti	ings in which you performed contact hours (please rank the top three settings based on time spent in that setting , i.e. the ing with the most hours spent will receive a number 1 rank; the second most time spent will receive a number 2 rank; the third st will receive number 3 rank. If you only completed in one or two settings, please rank accordingly):
	Acute care
	Extended Care Facility
	Home Health
	Inpatient Rehab
	Occupational Health
	Outpatient Ortho
	Outpatient Neuro
	Pediatrics
	Sports Medicine
	Other (please specify):
	proximately, what is the population of the city/community where you completed most of your contact hours (i.e. setting identified as above question)?
0	Less than 50,000
\bigcirc	50,000 - 99,999
0	100,000 - 249,999
\bigcirc	250,000 - 999,999
\bigcirc	1,000,000 - 1,999,999
0	2,000,000 - 4,999,999
0	5,000,000 or more
ider	proximately, what is the population of the city/community where you completed your second most contact hours (i.e. setting ntified as number 2 in the above question)? If you did not complete hours in more than one setting, please select "not licable".
0	Less than 50,000
0	50,000 - 99,999
0	100,000 - 249,999
0	250,000 - 999,999
0	1,000,000 - 1,999,999

2,000,000 - 4,999,999

C	5,000,000 or more
C	Not applicable
Ap	proximately, what is the population of the city/community where you completed your third most contact hours (i.e. setting identified number 3 in the above question)? If you did not complete hours in more than one setting, please select "not applicable".
C	Less than 50,000
	50,000 - 99,999
C	100,000 - 249,999
C	250,000 - 999,999
	1,000,000 - 1,999,999
C	2,000,000 - 4,999,999
C	5,000,000 or more
C) Not applicable
VVe	ere any settings particularly difficult to access for observation? For example, Acute Care, Outpatient Orthopedics, etc.
	Yes
) No
\//	nich settings were most difficult to access? Please check all that apply:
	Acute care
	Extended Care Facility
	Home Health
	Inpatient Rehab
	Occupational Health
	Outpatient Ortho
	Outpatient Neuro
	Pediatrics
	Sports Medicine
	Other (please specify):
	Other (please specify).
	ou indicated that you experienced difficulties accessing a site for observation, did you continue to pursue contact hours at the e(s)?
	Yes, I completed contact hours at the site(s) despite the difficulties experienced
	No, I did not continue to pursue access for observation; there were too many obstacles
~	

What were challenges you experienced gaining access to contact hours or that impeded your choice to observe at a certain location? Please check all that apply:

	There were time conflicts with the clinic site and/or physical therapist
	Difficulty of travel to facilities or distance was too far
	The site was too busy
	There were requirements of training and/or orientation that were too time consuming
	Lack of site willingness to accept students for observation experience
	Legal, health, or background requirements (i.e. background check, verification of health status, HIPAA concerns, etc.)
	Lack of or poor communication with site/volunteer coordinator
	Lack of overall organization of site for access to contact hours
	Other (please specify):
Was	s there a particular setting which you were unable to access for contact hours due to denial by the site?
0	Yes
0	No
	indicated you were you unable to access a site for contact hours due to denial; please select the settings you were unable to ess:
	•
	ess:
	Acute Care
	Acute Care Extended Care Facility (LTC, TCU)
	Acute Care Extended Care Facility (LTC, TCU) Home Health
	Acute Care Extended Care Facility (LTC, TCU) Home Health Inpatient Rehab
	Acute Care Extended Care Facility (LTC, TCU) Home Health Inpatient Rehab Occupational Health
	Acute Care Extended Care Facility (LTC, TCU) Home Health Inpatient Rehab Occupational Health Outpatient Ortho
	Acute Care Extended Care Facility (LTC, TCU) Home Health Inpatient Rehab Occupational Health Outpatient Ortho Outpatient Neuro
	Acute Care Extended Care Facility (LTC, TCU) Home Health Inpatient Rehab Occupational Health Outpatient Ortho Outpatient Neuro Pediatrics
	Acute Care Extended Care Facility (LTC, TCU) Home Health Inpatient Rehab Occupational Health Outpatient Ortho Outpatient Neuro Pediatrics Sports Medicine

Using the following scale, please rate the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree	Strongly Agree	N/A
Observation hours were beneficial to me.	0	0	0	0	0	0	0	0
Observation hours helped me decide on physical therapy as a career.	0	0	0	0		0	0	0
Observation hours helped me decide to apply to a particular physical therapy program.		0	0	0	0	0	0	0
Observation hours helped me decide what specific patient/client population I want		0			0	0	0	0

to work with (i.e. pediatric, geriatric, athletic, neurologic, etc.).	*Caratanananananananananananananananananan							
Observation hours helped me determine a specific setting I would like to work in (i.e. outpatient, acute care, long term care, etc.).		0	0		0	0	0	0
Observation hours helped me perform well in my academic coursework in my professional physical therapy program.	0	0	0	0	0	0	0	0
Observation hours helped me perform well in my clinical experiences and/or internships as a student physical therapist.		0	0	0	0	0	0	0
Observation hours helped me with my communication skills with patients/clients.	0	0	0	0	0	0	0	0
Other (please specify).	0	0	0	0	0	0	0	0
ort 2: Demographic data Demographic data								
zomegrapine acces								
Prior to admission to your physical Assistant (CNA), Personal Care A individuals with special needs, MEMT/Paramedic.	Attendant (PC	A), Athletic	Trainer (AT	C), Aide/Or	derly/Techni	cian, Camp	Counselor f	or
Assistant (CNA), Personal Care A individuals with special needs, M	Attendant (PC	A), Athletic	Trainer (AT	C), Aide/Or	derly/Techni	cian, Camp	Counselor f	or
Assistant (CNA), Personal Care A individuals with special needs, M EMT/Paramedic. Yes	Attendant (PC	A), Athletic	Trainer (AT	C), Aide/Or	derly/Techni	cian, Camp	Counselor f	or
Assistant (CNA), Personal Care A individuals with special needs, M EMT/Paramedic. Yes	Attendant (PC //ilitary Medic,	CA), Athletic Exercise Sc	:Trainer (AT	C), Aide/Or onal Trainer	derly/Techni , Physical Th	cian, Camp nerapist Assi	Counselor f	or
Assistant (CNA), Personal Care A individuals with special needs, M EMT/Paramedic. Yes No	Attendant (PC //ilitary Medic, //ou <u>complete</u>	CA), Athletic Exercise Sc	:Trainer (AT	C), Aide/Or onal Trainer	derly/Techni , Physical Th	cian, Camp nerapist Assi	Counselor f	or
Assistant (CNA), Personal Care individuals with special needs, MEMT/Paramedic. Yes No Please select the areas in which y Certified Nursing Assistant (COME) Personal Care Attendant (PCOME)	Attendant (PC dilitary Medic, you <u>complete</u> CNA)	CA), Athletic Exercise Sc	:Trainer (AT	C), Aide/Or onal Trainer	derly/Techni , Physical Th	cian, Camp nerapist Assi	Counselor f	or
Assistant (CNA), Personal Care individuals with special needs, MEMT/Paramedic. Yes No Please select the areas in which y Certified Nursing Assistant (Compared to the select	Attendant (PC dilitary Medic, you <u>complete</u> CNA)	CA), Athletic Exercise Sc	:Trainer (AT	C), Aide/Or onal Trainer	derly/Techni , Physical Th	cian, Camp nerapist Assi	Counselor f	or

Camp Counselor for individuals with special needs

Qualtrics Survey Software

9/3/2015

Engineering

	Health and Medical
	Hospitality
	Law and Criminal Justice
	Media
	Military
	Office and Administrative
	Psychology
	Sales
	Service
	Science
	Technology
	Transportation (including airline pilots, taxi and truck drivers, train operators, etc.)
	Other:
Hov	v did you arrive at your decision to pursue physical therapy as a career? Please check all that apply.
	Family member with health care needs
	Personal health care experiences
	Observation/volunteer/work hours
	Web searches
	Interviewing practitioners
	Job shadowing in high school
	Personal or family friend working in physical therapy
	Other:
Wha	at is your age (in years)?
Wha	at is your gender?
0	Male
0	Female
In w	hat state is your professional physical therapy program located?
	▼
Summer	

Approximately, what is the population of the city in which your professional program is located?

20	15	Qualtrics Survey Software
	O	Less than 50,000
	0	50,000 - 99,999
	0	100,000 - 249,999
	0	250,000 - 999,999
	\bigcirc	1,000,000 - 1,999,999
	0	2,000,000 - 4,999,999
	0	5,000,000 or more
	Wha	at year are you in your professional physical therapy program?
		V .
	Dox	you have any additional comments?

APPENDIX B

Informed Consent

Accessibility and Perceived Value of Pre-Admission Clinical Contact Hours: The Physical Therapy Student Perspective

You are invited to participate in a research study designed to analyze the accessibility and perceived value of observation hours prior to acceptance to a professional physical therapy program. You have been invited to participate as you are currently enrolled in a professional physical therapy program.

This survey has two parts: a section with questions about your 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 any of the questions 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, Dr. Cindy Flom-Meland at 701-777-2831 or cindy.flom.meland@med.und.edu, Katie Anderson at katie.anderson.2@my.und.edu, or Megan Volden at megan.volden@my.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 you were 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, Katie Anderson, SPT and Megan Volden, SPT Renee Mabey, PT, PhD and Cindy Flom-Meland, PT, PhD, NCS

Part 1: Contact hours

Did you complete contact hours prior to admission to your professional physical therapy program?
○ Yes
○ No
You indicated that you did not complete contact hours prior to admission, do you feel that contact hours would have been beneficial? Why or why not?
You indicated that you completed contact hours; Were they a requirement for admission to your professional physical therapy program?
○ Yes
○ No
How many hours were required for admission to your professional physical therapy program?
Why did you complete pre-admission contact hours?
Professional program admission requirement only; did not perform them for my own personal benefit
Contact hours assisted me in determining physical therapy as a career choice

Professional program requirement and I found them to be beneficial
Were your pre-admission physical therapy contact hours volunteer or work related? Please identify the number of hours in each setting.
☐ Volunteer/observation
Work
Settings in which you performed contact hours (please rank the top three settings based on time spent in that setting, i.e. the setting with the most hours spent will receive a number 1 rank; the second most time spent will receive a number 2 rank; the third most will receive number 3 rank. If you only completed in one or two settings, please rank accordingly):
Acute care
Extended Care Facility
Home Health
Inpatient Rehab
Occupational Health
Outpatient Ortho
Outpatient Neuro
Pediatrics
Sports Medicine
Other (please specify):
Approximately, what is the population of the city/community where you completed most of your contact hours (i.e. setting identified a number 1 in the above question)? 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
Approximately, what is the population of the city/community where you completed your second most contact hours (i.e. setting identified as number 2 in the above question)? If you did not complete hours in more than one setting , please select "not applicable".
○ 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
	Not applicable
App as r	roximately, what is the population of the city/community where you completed your third most contact hours (i.e. setting identified number 3 in the above question)? If you did not complete hours in more than one setting , please select "not applicable".
	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
	Not applicable
Wer	re any settings particularly difficult to access for observation? For example, Acute Care, Outpatient Orthopedics, etc.
	Yes
	No
Whi	ch settings were most difficult to access? Please check all that apply:
	Acute care
	Extended Care Facility
	Home Health
	Inpatient Rehab
	Occupational Health
	Outpatient Ortho
	Outpatient Neuro
	Pediatrics
	Sports Medicine
	Other (please specify):
You site	indicated that you experienced difficulties accessing a site for observation, did you continue to pursue contact hours at the (s)?
	Yes, I completed contact hours at the site(s) despite the difficulties experienced
\bigcirc	No, I did not continue to pursue access for observation; there were too many obstacles
	at were challenges you experienced gaining access to contact hours or that impeded your choice to observe at a certain location? ase check all that apply:
	There were time conflicts with the clinic site and/or physical therapist

_	Difficulty of travel to facilities or distance was too far
	The site was too busy
	There were requirements of training and/or orientation that were too time consuming
	Lack of site willingness to accept students for observation experience
	Legal, health, or background requirements (i.e. background check, verification of health status, HIPAA concerns, etc.)
	Lack of or poor communication with site/volunteer coordinator
	Lack of overall organization of site for access to contact hours
	Other (please specify):
Was	s there a particular setting which you were unable to access for contact hours due to denial by the site?
	Yes
	No
	indicated you were you unable to access a site for contact hours due to denial; please select the settings you were unable to ess: Acute Care
	Extended Care Facility (LTC, TCU)
	Home Health
	Inpatient Rehab
	Occupational Health
	Outpatient Ortho
	Outpatient Neuro
	Pediatrics
	Sports Medicine

Using the following scale, please rate the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree	Strongly Agree	N/A
Observation hours were beneficial to me.	0	0	0	0	0	0	0	0
Observation hours helped me decide on physical therapy as a career.	0	0	0	0	0	0	\circ	0
Observation hours helped me decide to apply to a particular physical therapy program.	0	0	0	0		0	\circ	0
Observation hours helped me decide what specific patient/client population I want to work with (i.e. pediatric, geriatric, athletic, neurologic,	0	0	0	0	0	0	0	0

In your opinion, what makes a quality experience for contact hours with a physical therapy site prior to admission to a professional program? (indicate up to 3 items)

Part 2: Demographic data

Demographic data

Prior to admission to your physical therapy program, did you **complete training** in any of the following areas? Certified Nursing Assistant (CNA), Personal Care Attendant (PCA), Athletic Trainer (ATC), Aide/Orderly/Technician, Camp Counselor for individuals with special needs, Military Medic, Exercise Scientist, Personal Trainer, Physical Therapist Assistant (PTA), and/or EMT/Paramedic.

Yes

No

Please select the areas in which you completed training from the list below. Please check all that apply.

Certified Nursing Assistant (CNA)

https://und.qualtrics.com/ControlPanel/Ajax.php?action=GetSurveyPrintPreview

Choose the field of your prior career from the list below:

Agricultural

Business and Finance

	Computers						
	Construction						
	Education						
	Engineering						
	Health and Medical						
	Hospitality						
	Law and Criminal Justice						
	Media						
	Military						
	Office and Administrative						
	Psychology						
	Sales						
	Service						
	Science						
	Technology						
	Transportation (including airline pilots, taxi and truck drivers, train operators, etc.)						
	Other:						
Hov	vidid you arrive at your decision to pursue physical therapy as a career? Please check all that apply.						
	Family member with health care needs						
	Personal health care experiences						
	Observation/volunteer/work hours						
	Web searches						
	Interviewing practitioners						
	Job shadowing in high school						
	Personal or family friend working in physical therapy						
	Other:						
\//b	at is your age (in years)?						
VVII	acis your age (iii years):						
Wha	What is your gender?						
	Male						
	Female						

In what state is your professional physical therapy program located?

· · · · · · · · · · · · · · · · · · ·
Approximately, what is the population of the city in which your professional program is located?
○ Less than 50,000
<u>50,000 - 99,999</u>
<u> </u>
<u>250,000 - 999,999</u>
1,000,000 - 1,999,999
2,000,000 - 4,999,999
5,000,000 or more
What year are you in your professional physical therapy program?
▼
Do you have any additional comments?