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The Teaching and Evaluation of Professionalism for DPT Students During the Clinical Education Experience

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Methods: Three items from the professional practice section of the Clinical Performance Instrument (CPI) (accountability, communication, and professional behavior), were utilized to create the conceptual framework around which the interview questions were constructed. The qualitative research design allowed the primary investigator to speak one-on-one with CIs and DPT students in a clinical environment. Ten CIs and ten DPT students participated in the study. There were five pairs of participants from program #1 (not emphasizing professionalism), and five pairs from program #2 (emphasizing professionalism).

Results: Overall, it was determined from the findings that role modeling is the preferred form of instruction for affective behaviors like accountability and professional behaviors. However, immediate constructive feedback is a better form of instruction for communication; and close proximity observation, in conjunction with reviewing the sample behaviors from the CPI, serve as the preferred evaluative technique for the elements of accountability, communication, and professional behavior.

Conclusions and Recommendations: It was concluded that role modeling and the provision of immediate constructive feedback were the best forms of instruction for non-cognitive attributes, while close proximity observation served as the best form of evaluation. Based on the findings from the study, an investigation should be undertaken to examine the reliability and validity of the CPI.

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ABSTRACT

Purpose: The purpose of this comparative study was to investigate the reports of clinical instructors (CIs) and Doctor of Physical Therapy (DPT) students from two different physical therapy programs in New England regarding their opinions on the teaching and evaluative techniques of professionalism during a clinical education rotation. One program emphasized professionalism prior to the students beginning their clinical rotations, while the other program did not have the same emphasis. **Methods:** Three items from the professional practice section of the Clinical Performance Instrument (CPI) (accountability, communication, and professional behavior), were utilized to create the conceptual framework around which the interview questions were constructed. The qualitative research design allowed the primary investigator to speak one-on-one with CIs and DPT students in a clinical environment. Ten CIs and ten DPT students participated in the study. There were five pairs of participants from program #1 (not emphasizing professionalism), and five pairs from program #2 (emphasizing professionalism). **Results:** Role modeling appears to be the preferred form of instruction for affective behaviors like accountability and professional behaviors. However, immediate constructive feedback seems to be a better form of instruction for communication; while close proximity observation, in conjunction with reviewing the sample behaviors from the CPI, serves as the preferred evaluative technique for the elements of accountability, communication, and professional behavior. **Conclusions and Recommendations:** It was concluded that role modeling and the provision of immediate constructive feedback were the best forms of instruction for non-cognitive attributes, while close proximity observation served as the best form of evaluation. Based on the findings from the study, an investigation should be undertaken to examine the reliability and validity of the CPI.

Keywords: professionalism, accountability, communication, professional behavior, Clinical Performance Instrument

INTRODUCTION

The process by which Doctor of Physical Therapy (DPT) students develop into "professionals" requires participation in activities and practices that promote and facilitate the concept of professionalism. The clinical educational experience is an ideal environment for this to occur, as students can build upon and hone their non-cognitive skills with actual patients. Clinical Instructors (CIs) have optimal opportunity to support professional behaviors while observing and assessing student interactions with staff and patients because of the one-on-one time that they spend with their students.[1,2]

Within a clinical environment, CIs are given the task of supervising DPT students through all the domains of learning. This incorporates cognitive and psychomotor skills related to patient management, as well as affective behaviors related to professional practice. However, because of the primary emphasis that is placed on patient management, values related to professionalism are sometimes diminished.

Deficiencies related to patient management are often identified and remediated in an expedient manner. On the other hand, when affective traits dealing with professionalism need to be addressed, there appears to be a degree of reticence on the part of the CI.[1,2] A survey of physical therapist employers highlighted the importance of professionalism and professional behaviors.[3] It was revealed that employers value professionalism more highly than clinical skills in their employees, thus supporting the importance of professionalism to stakeholders within the physical therapy profession.[3] According to Foord-May and May, professionalism exists within a range of behaviors, and when combined with a unique body of knowledge and skills, is basic to a physical therapist's success.[4]

The professional maturation of a DPT student is dependent on his or her participation in activities that promote and facilitate professionalism. Within the context of the clinical education experience, the CI plays an important role in cultivating those behaviors. A CI nurtures and develops a student's skills and behaviors related to patient care, as well as those behaviors that are related to professionalism.[4] However, in some instances, CIs report that the expected professional behaviors are not being displayed during the clinical education experience.

A comparative survey administered to CIs and DPT students exposed dichotomous opinions regarding the concept of professionalism. The results revealed that DPT students do not share the same structured expectations of the CIs in regard to professional behaviors.[5] In addition, there are differences that also exist amongst CIs regarding the instruction and evaluation of professionalism because CIs tend to rely on their own personal expectations when it comes to something as imprecise as professionalism. One of the reasons ascribed to this inconsistency is that professionalism is relational in nature, and its non-cognitive traits make it very difficult to teach and assess.[2,5]

Within a physical therapy curriculum, the main charge of the CI is to guide the student toward entry-level practice by supervising and mentoring the DPT student in a clinical environment. The clinical education experience is an important aspect of the maturation process because it adds to the evolving professional identity of the student.[6] Professional practice and patient management, as stated in the Clinical Performance Instrument (CPI), are the two primary areas that are assessed during this period. The CPI focuses on what DPT students can do in their overall clinical competency, and the CI is tasked to rate the students on 18 performance points. Each of these performance points includes a set of illustrative sample behaviors that demonstrate essential or core performance behaviors expected of a well-prepared, professional clinician.[6]

The eighteen performance criteria on the CPI are divided into professional practice and patient management sections. Included in the performance criteria are five red flag performance items in which students are expected to be at entry-level performance throughout the duration of their clinical rotation. According to the American Physical Therapy Association (APTA), any red flag item that is negatively identified by the CI indicates significant concern for the student and may result in a failed clinical experience.[6,7] The red flag items identified in the CPI are safety, professional behavior, accountability, communication, and clinical reasoning. Utilizing the APTA's core values and generic abilities statement from the *Normative Model of Physical Therapist Education*, the three red flag items from the CPI that were assessed in this investigation were professional behavior, accountability, and communication.[7,8]

These three items are clearly defined in the core values document, the *Professional Behaviors for the 21st Century* manuscript, and the CPI.[4,6] Since the CPI is the primary form of assessment for students in a clinical affiliation, it was decided by the primary investigator that these three attributes would be utilized as the assessment piece of a DPT student's professionalism. The primary question that will be answered is "How is professionalism instructed and evaluated during a DPT student's clinical education

experience with respect to the student's accountability, communication, and professional behavior?" These behaviors have been presented in alphabetical order without any intention of preference or ranking as defined by the CPI.

Accountability

Accountability is a representative value under the construct of professionalism. Physical therapists and other health care providers are accountable to many different parties: patients, health care organizations, other professionals, the government, and "third-party" payers. Professional accountability is one of the primary accepted behaviors upon which professionalism is based in the physical therapy profession as well as other professions.[9] The sample behavior from the CPI describes accountability as practicing in a manner consistent with established legal and professional standards and ethical guidelines.[6]

Communication

Communication has been defined as the most important aspect of practice that health professionals must master, and an essential requirement underpinning any successful practitioner-patient encounter. It is important to consider not only what is being said, but also the way it is conveyed, as communication traditionally incorporates verbal and nonverbal behaviors. The profession of physical therapy utilizes verbal communication for the transference of information or instruction as well as for conveying empathy in order to establish the relationship between clinician and patient.[10] The sample behavior from the CPI describes communication as communicating in ways that are congruent with situational needs.[6]

Professional Behavior

Professional behaviors are identified as a process by which students acquire and develop requisite knowledge, skill, aptitude, and attitude necessary for a successful transition into their selected profession. It requires a foundation of clinical competence, paramount communication skills, and a strong understanding of ethics and law.[11,12] The sample behavior from the CPI describes professional behavior as demonstrating professional behavior in all situations.[6]

The scholarly literature has revealed several articles that are related to the integration of professionalism into the academic portion of a DPT curriculum, as well as varying viewpoints regarding the facilitation of professionalism during clinical affiliations. A lack of professionalism is a problem that CIs identify as being difficult to retrain and overcome, more so than any other deficit that is related to classroom knowledge or clinical performance.[13] However, there is a lack of agreement surrounding the teaching and evaluative techniques related to professionalism during the clinical education experience.[3,4]

The review of literature related to health care education in the affective domain of learning reveals that it is appropriate for either a qualitative or quantitative approach when assessing an attribute such as professionalism.[14] This study utilized a qualitative approach, along with the benefits of phenomenological research that provided thoughtful representations of the different lived experiences from each of the participants.

There is a dearth of literature related to how professional practice items from the CPI are taught and assessed during a clinical affiliation. Therefore, the purpose of this study was to define professionalism by utilizing the three red flag items from the CPI. Then, its purpose was to identify how CIs teach and assess those items during the clinical education experience, and lastly, how their students perceive those items are being taught and evaluated.

METHODS AND MATERIALS

Subjects

A purposeful sampling strategy was employed for this study. The sample for this study was drawn from two DPT programs located in the northeast region of the United States and was comprised of individuals of a socioeconomic position that would be categorized as middle class. Subjects were recruited for the study with the assistance of each program's Director of Clinical Education (DCE) or Academic Coordinator for Clinical Education (ACCE).

The main inclusion criteria for selection of these sites was that the physical therapy academic program must be currently accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), and they must employ an integrated clinical experience (ICE) model. The ICE model requires students to go out on scheduled observations in various clinical environments (outpatient, acute, subacute, etc.) during the didactic phase of the curriculum with some associated classwork. These experiences are scheduled to prepare the students for their upcoming clinical affiliations. One of the selected programs placed a very high importance on professionalism and professional behaviors prior to their students entering their clinical affiliations, while the other program did not share in this same emphasis.

Five DPT student-CI pairs were recruited for participation from each institution. The pairing was blinded from each participant. Students were included if they were in good academic standing, had completed at least two clinical education experiences, and were familiar with the CPI. Students were excluded from the study if they were not in good academic standing in the program.

Inclusion criteria for CIs required each participant to have familiarity with the CPI. In addition, each CI participant was either credentialed as a CI, or they had to have supervised a minimum of 15 students during the clinical education experience. The Credentialed Clinical Instructor Program (CCIP) is a certification series of courses from the APTA that is intended for health care providers who work primarily in a clinical setting and are interested in developing their teaching abilities. CIs were excluded from the study if they had any pending litigation against them, or if they had ever had their professional license suspended. All participants received a $25.00 gift card as an honorarium for their participation in the study.

Procedures

Audiotaped, in-depth interviews and a pre-interview questionnaire served as the primary data collection tools for this investigation. The pre-interview questionnaire for both CIs and students, the proposed interview questions for both CIs and students, and the informed consent form were all piloted. The feedback that was generated by the pilot interview spawned minor changes in the interview questions that addressed order and clarity. The pilot-test group consisted of one DPT student who had completed all of her clinical affiliations, and one physical therapist who had served as a CI for at least 20 different students. The data collected from these individuals during the piloting was not included as actual data in the study.

The pre-interview questionnaire asked for the demographic information of the study participant, and it also asked about the participant's experiences regarding the teaching and evaluation of professionalism during the clinical education experience. The questions on the pre-interview form were intended to prepare the study participants for the interview process by asking them to recall instances during the clinical education experience in which professionalism was either being assessed and/or taught.

Data Collection

In-depth, focused interviews were conducted with each participant. The interviews were guided by an open-ended interview protocol that was developed from the research questions, from the researcher's experience of working as a physical therapist, and from the prior research regarding professionalism in the field of physical therapy. The interview approach used in this study outlined a set of issues and then allowed the participant to respond to, and expand upon, the questions that were posed by the investigator.[15,16]

At the beginning of each interview a statement was read explaining the purpose and nature of the interview in addition to getting the participant's formal consent to participate. The interview protocol was then used. Interviewees were asked to explain their opinions regarding the effective means of teaching and assessment regarding the concept of professionalism during the clinical education experience in regard to the three red flag items that were identified in the conceptual framework—accountability, communication, and professional behavior.

All the interviews took place in person, and in a clinical environment, which was intended to re-create a lived experience. If scheduling precluded the opportunity for the interview to take place in a clinical environment, another location was arranged. Each interview was audiotaped and transcribed for coding and analysis.

Data Analysis

The primary source of data for this study was the focused interview that was conducted with the DPT students and the CIs. The transcribed interviews were coded to get a general impression of the content. The next step incorporated re-reading the transcripts and sorting the data with individual notations and comments, eventually leading to the grouping of the comments into individual categories. Themes were defined and modified accordingly, with any redundancies being eliminated. All the coding related to the data analysis was conducted by the primary investigator. To enhance the reliability and validity of the coding process, a faculty member from another university audited the codes and supporting quotations. Following the coding process two other faculty members, from separate universities, reviewed the completed sets of codes and quotations for completeness and accuracy. The process of manual coding provided the investigator with an intimate knowledge of the data, and thus a more informed analysis.[14,15]

Data display is the step of analysis where the data was systematically organized into matrices and charts, which was supported by illustrative quotations from the transcripts. The final step of the data analysis was conclusion drawing and verification where decisions were made about the findings of the study.

RESULTS

Of the ten CIs (1 male, 9 females) who participated in this investigation five had earned their DPT degree, one had their MSPT degree, and three had a BS degree in physical therapy. Seven of the CIs worked in outpatient clinics—four working with orthopedic patients, one working with neurological patients, and one working exclusively with pediatric patients. Two of the CIs worked in acute care, while the last CI worked in a rehabilitation hospital. All the CIs were credentialed as certified clinical instructors, and they had a mean age of 41.3 years. Each of the ten DPT students (4 males, 6 females) who participated in the study had completed three clinical affiliations, with at least one of the affiliations occurring in a complex medical environment. Each of the students were members of the APTA, and they had an average age of 26.4 years.

Accountability

Regarding the characteristic of accountability, CIs from both institutions felt that this characteristic was extremely important, while 7 of 10 student participants expressed a different perspective saying that they felt that it was the easiest attribute to acquire. One CI participant was quoted with the following statement:

> "*I really find that accountability is very important, because when you are a student you can rely on one another. Maybe you didn't learn how to be accountable because your classmates were helping you. Once you become a professional, it does not matter if you learned how to be accountable—you have to be accountable. If you do something wrong—you own it*."

Seven of the CI participants referred to accountability as a foundational attribute on which other traits are constructed. They were assessing accountability from a perspective that students have not yet experienced. Accountability to your patients, colleagues, reimbursement agencies, referral sources, and the community at large are aspects of the profession that students seemingly do not yet comprehend. The prevailing feeling from most of the student participants related to the importance of accountability was that this attribute should have already been cultivated and developed before entering graduate school. One student stated the following:

> "*I think that accountability should really be the easiest attribute to learn. In fact, it shouldn't need to be learned at all—it should already have been established in each of us prior to starting PT school*."

With respect to how accountability is best evaluated during a clinical experience, 65% (13) of all participants identified close proximity observation as the best assessment tool for this particular characteristic, which happens to agree with the literature.[3]

> *"I think that my CI assessed my accountability based on the observation of my behaviors and how I was performing…I think most of her evaluation was done by observation."*

> *"For most of my students, unless they are very high level, I am with the student for the entire duration of the treatment. I am watching and assessing at the same time…. Generally, I am always there observing, maybe stepped back a little bit, but I am there. I am listening to them during the whole process."*

There was one isolated finding regarding accountability that was supported by the literature and it was regarding the use of self-reflection as a means of assessment. One student described how she used self-reflection in the assessment and development of her own accountability:

> *"I think the teaching of accountability was done best using my own self-reflection. Many clinical sites have a form that you fill out, 'What was good? What was bad? What can we improve?' Things like that. That is followed up by a discussion, and I think that helped with the teaching of accountability, because you have to sit there and admit, 'Well, I didn't do this very well,' so I would reflect on why I wasn't good and how could I make it better?*"

Eight of the CI participants identified leading by example as the best means of teaching accountability during a clinical experience. The CIs in this investigation appear to understand that young, future professionals are viewing them as role models and that everything they do is being scrutinized and reflected upon.

Communication

The two most prominent findings regarding the importance of communication was that 70% (7) of the student participants felt that communication was the most important attribute of the three red flag items, while 90% (18) of all participants (CIs and students) felt that communication was the most difficult attribute for a student to learn. The following quotations are illustrative of how communication is viewed as being the attribute that is most difficult to learn:

> *"I think that communication is the most difficult attribute for a student to learn. I think that the ability to communicate with people is what students find difficult—particularly when you have people of different ethnicities, from different cultures, with language barriers, or having age variances."*

> *"I think the communication piece is probably one of the hardest to learn. Just because of the experiences we have in school, students do not get a lot of variation in their audience, and that variation does not occur until you are out in a clinic. Then you find yourself trying to figure out how to respond to different individuals and that can be very challenging."*

Even though communication is a required element in physical therapy curricula, students from both institutions commented that they received very little constructive feedback regarding their communication skills during the didactic phase of their respective programs. The following quotes further emphasize the participants feelings regarding the importance of communication.

> *"I spent about 45-60 minutes with each of my patients and I did a lot of communicating. There is a lot of one-on-one discussion about specific interventions, general health, and exercise programs, not to mention communication with other physical therapists and other disciplines. There is no question in my mind that communication is the most important attribute."*

> *"I would say that communication is the most important attribute because I feel that if you don't build a good rapport with the patient, and you're unable to get through what you're trying to accomplish you are not going to be successful with your treatments. I feel that accountability and professional behavior are important, but without communication your entire treatment process can be negatively affected."*

Regarding the evaluation of communication during a clinical experience, 70% (14) of all participants (CIs and students) identified close proximity observation as the best means of assessment for communication. All the comments were made in relation to verbal communication while none of the participants remarked about the assessment of written communication or physical body language.

With respect to the instruction of good communication, 70% (7) of the student participants felt that the provision of immediate constructive feedback would be the best way of teaching this attribute. Other instructional strategies that were mentioned during the interview process included having mock conversations between CI and student and having the opportunity to role play different scenarios.

Professional Behavior

Only 30% of all participants (6) (CIs and students) felt that professional behavior was the most important of the three attributes, but the following quote made a good case for this attribute being the most important:

> *"I think that professional behavior is the most important attribute because I think the other two are kind of encompassed within professional behavior. If you arrive on time and are prepared for the day and you are presenting yourself appropriately to other staff members, as well as to patients, then you are going to communicate effectively with your patients, with your peers, and you are going to be accountable for your own actions."*

The CI participant who made this quote identified professional behavior as the overarching behavior under which both communication and accountability fall. Their viewpoint was that if a student demonstrated good professional behavior—communication and accountability would follow suit in a similar pattern.

The finding that was most common regarding the importance of professional behavior was that 80% (16) of the participants thought that professional behavior was the easiest attribute for a student to acquire.

> *"I think that professional behavior is the easiest attribute to learn for students because there are things that you can objectively measure in the professional behavior category like following the dress code or showing up on time.*

> *Professional behavior is probably the one attribute that students would have the easiest time with because some of those items are items that you could actually put on a list, and the students can follow checkpoint by checkpoint."*

> *"I think that professional behavior is the easiest attribute to learn. Are you on time; are you responsible; are you getting your assignments in; are you prepared for your workday? To me, it is a no-brainer. If you are in the physical therapy profession, anyone should be able to follow those tenets."*

With respect to the evaluation of professional behavior 80% (16) all participants (CIs and students) identified close proximity observation as the preferred means of evaluation.

> *"In terms of assessment, I think my CI really assessed my professional behaviors through observation. If there was something that she corrected me on she would then assess if I took her advice. She wanted to see what I was doing to change the behavior that she identified. She would assess on my growth and progress…stuff like that."*

However, there was another significant finding that arose from this question— CIs appear to judge professional behavior from their own individual perspective. The following quote reveals how one CI bases her evaluations of professional behavior on personal expectations:

> *"Assessing professional behavior comes from my personal expectation of the student because after a while you get an idea of where a student should be at a certain point. I have very high expectations, and I don't think anyone would ever be able to meet them. However, where a student should fall in terms of professional behavior is subjective in terms of a CI, and dependent on their expectations."*

Regarding the instruction of professional behavior during a clinical experience 90% (18) of all participants felt that this attribute is best taught through role modeling or leading by example.

> *"I think that my CI taught by being a role model. She was always professional. She never gave me any reason to question her professional behavior, so she led by example. She would say that this is what they teach in school, and this is how you practice in the clinic—it is working toward the same goal."*

> *"As far as the teaching of professional behavior, again, it's kind of a role model-type behavior or leading by example is how to approach different situations."*

A secondary finding related to programmatic preparation regarding professionalism resulted from the student responses. When asked about specific assignments or activities that were meant to promote their professionalism prior to their clinical affiliations, an interesting trend developed. Four of the five students from school #1 (program that did not emphasize professionalism prior to clinical rotations) identified the use of clinical practical examinations (CPE) as the best method of promoting and refining their non-cognitive behaviors. One student remarked about the regimentation, especially regarding the attributes of professionalism. Students were expected to communicate in a manner that was commensurate with the situation, and they had to present themselves in what was considered professional attire. In the eyes of the students from school #1, the CPE was one of the best things that the program did to cultivate professionalism and to prepare them for clinical work.

None of the students from school #2 (the program with a strong emphasis on professionalism) mentioned the use of the CPE as being beneficial to the development of their professionalism. Reports from these students specified that the concept of professionalism was not emphasized on their CPEs—neither in practice nor in grading. Furthermore, these students reported that their CPEs were not good learning experiences, were extremely stressful, and were not objectively assessed. One student stated,

> "*I could lose all of the points on the exam related to professionalism, and I could still pass the exam based on my clinical management skills*."

DISCUSSION

According to Plack, a student's immersion into the clinical environment is critical for learning the attributes of professionalism, and the presence of a positive role model plays an important part in the student's clinical education.[16] A good CI who demonstrates excellent qualities of communication, accountability, and professional behavior has a better chance of facilitating those attributes in a student as opposed to a CI who does not exhibit those same qualities.[17] The need for appropriate role models during clinical training is imperative simply because the CI is so important in the development of professional behaviors in a student. Additionally,

the ability to actively role model professional behaviors allows the CI to more effectively teach different aspects of professionalism (e.g., accountability, communication, professional behaviors), as well as assessing all non-cognitive attributes.

This investigation confirmed what had been previously reported—role modeling is regarded as the best and most practical method of transferring professional values and attitudes.[11] The concept of role modeling is an important part of the clinical education experience because most behaviors, regardless of the learning domain, are learned by imitating others.[18,19] In addition, role modeling was identified by 80% the student participants as a component of the clinical education experience that contributes to the creation of a positive relationship with the clinical instructor.

In addition to the instructional merits of role modeling, immediate constructive feedback has also been found to be an effective technique in teaching the relational qualities of professionalism. The use of frequent and immediate feedback that is discriminating allows a student to process information on a deeper level, but more importantly it helps to prevent bad habits from occurring over and over.[20] The use of verbal constructive feedback was identified by 70% of the student participants and 50% of the CIs as an appropriate teaching tool for the attribute of communication. When interacting with a patient, it may be the non-verbal aspects of communication that are most important. A calm approach and the tone of one's voice can set a patient at ease. The ability to listen and truly hear the patient conveys empathy and compassion. When role modeling is the sole source of instruction, qualities like this are difficult to emulate, especially when a clinical experience only lasts ten weeks. This may be the primary reason that immediate constructive feedback was identified as the best form of instruction for the attribute of communication. Fink stated that the provision of feedback in the form of a midterm and final grade on the CPI is insufficient.[20] Feedback needs to be frequent and immediate so that a student can reflect on his or her clinical performance. The feedback needs to be discriminating to help the student distinguish between good and bad performance; and finally, the feedback needs to be delivered with empathy and understanding.[20]

The need to provide more attention to communication in physical therapy education has only been accelerated by the emergence of patient-centered perspectives, and this can possibly translate into curricular changes that focus more on actual communication education. It has been claimed in the healthcare profession that 80% of patients' complaints arise from a breakdown in communication,[10] a finding that highlights both the importance of communication as well as the comments from the participants in this study. Furthermore, communication assumes a larger significance within the profession when therapist-patient relations go awry—especially when an explanation or apology have been cited as actions that might prevent a future litigation.[10]

Regarding the evaluation of professionalism, the CPI, which is the traditional method of assessment, has been quite useful in assessing many outcomes. However, relational skills that lie in the affective domain of learning are difficult to assess.[21,22] Greenfield et al. argue that close proximity observation is the best evaluative tool for assessing non-cognitive attributes; and the CIs in this study appear to re-affirm that statement.[23] The preference of close proximity observation as an evaluation tool may indicate that the assessment of abstract constructs like accountability, communication, and professional behavior are difficult to quantify.

Nonetheless, one of the findings from this study revealed that CIs have specific expectations regarding professionalism for their students. Even though the CIs in this study reported close proximity observation as the best means of evaluation for their students, those observations could be biased by their own personal expectations when it comes to evaluating non-cognitive attributes. It is possible that CIs who have long-standing relationships with specific schools will most likely have their expectations align with those of the school. On the other hand, CIs who instruct students from schools with which they have no familiarity could have their personal expectations sway the student's evaluation.

Limitations

The approach of using DPT students and CIs from two different programs created a diverse range of participants for the study, and it also reduced the risk for chance associations and systematic biases that could be inherent in the sampling of a small group from a singular location. Additionally, data collected from multiple locations added to the construct validity of the study.[24]

In this study, there are three weaknesses. The first limitation of this study was that the researcher developed the interview guide, and the instrument was pilot tested. However, the instrument was only piloted once, and it was never used in any prior studies so its validity and reliability had not yet been determined.

The second limitation involved the foundational education of the DPT students. Depending on the participating institution's educational model, students may have had different viewpoints regarding professionalism, and this had the ability of skewing the results of the study.

The third limitation was the potential for researcher bias. As a licensed physical therapist working in the profession, the primary investigator could very well interpret responses in a way that they were not intended. However, the primary investigator's significant experience within the physical therapy profession and his experience as a clinical instructor could also have been considered a potential strength.

CONCLUSIONS

This study examined the reports of CIs and DPT students regarding their perceptions on the instruction and evaluation of professionalism during a clinical education experience. Given the results of this study it seems that communication is the most important non-cognitive attribute for physical therapists, and the most difficult attribute for students to learn and master. Close proximity observation appears to be the best method to evaluate behaviors in the affective domain of learning, and role modeling appears to be the best form of instruction for the attributes of accountability and professional behavior, while immediate constructive feedback looks like the best form of instruction for the attribute of communication.

Recommendations

The objective method that is used to evaluate a DPT student's professional behaviors is the CPI. The last time the CPI was revised, and field tested by the APTA was 2006. The results from this study suggest that further investigation be undertaken to examine the reliability and validity of the CPI. A CI needs to be empowered in order to evaluate and remediate unprofessional behaviors in an expedient manner because these types of behaviors are unlikely to resolve on their own.[14] A new revision to the CPI, along with new instructions, could provide new insights to CIs and students in a manner that provides more objectivity towards non-cognitive behaviors.

This qualitative study delved into the opinions of ten DPT students who were equally divided between two schools—one that emphasized professionalism and its associated behaviors in its everyday culture, and one that did not. It also explored the perceptions of ten clinical instructors, five of whom had familiarity with school #1, and five of whom had familiarity with school #2. Some of the findings reaffirmed the latest evidence, while some of the other findings created new questions. Since this study only drew on two schools and a relatively small number of subjects, the conclusions must be viewed as tentative. Nevertheless, it is plausible that the conclusions generalize to the wider population of programs, faculty, and students. Ultimately, this assertion can only be tested through further research.

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