



Research Article

Practical Examination as a Reflective Learning Tool for Professional Behaviors

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Abstract

Teaching professional behaviors in health professions education programs can be challenging, especially when learning activities are often housed in non-clinical courses. This report describes a clinically-focused professional behavior learning activity delivered collaboratively between two concurrent Doctor of Physical Therapy (DPT) courses. **Subjects:** Forty-one first-year DPT students concurrently enrolled in Clinical Decision Making I and Examination Techniques courses. **Methods:** Students participated in three self-assessment surveys regarding perceived strengths and weaknesses (1) in preparing for a midterm practical examination, (2) reflecting on their actual practical performance, and (3) after individual video review of that performance. A survey design and thematic content analysis were used to describe the most important issues identified by students. **Results:** A total of nine themes related to perceived strengths and weaknesses emerged after analysis. Of these, only one, self-efficacy, was not directly or indirectly described by previously published models of professional behaviors. **Discussion and Conclusion:** This paper describes a teaching and learning process that occurred in a clinically-oriented course that resulted in an active and integrative professional behavior learning activity.

Keywords: Physical therapy; Professional behaviors; Professional education; Video recording; Self-assessment

Introduction

Teaching professional behaviors in health professions education programs can be challenging [1-3]. Based on published literature, most health professions entry-level programs include some degree of professional behavior instruction, but currently no best practice method of covering this content has been identified [4-6]. Faculty commonly utilize role modeling, discussion, case studies, and student self-assessments as methods of teaching students how to interact with each other and with patients [2,7]. Anecdotally, students often view this aspect of professional practice to be less important or less engaging than hands-on clinical knowledge and skill and often seem less motivated or engaged in professional behavior courses or activities. The ability of faculty to develop and enhance professional behaviors in students depends on significant and meaningful learning activities that engage and motivate but that are also manageable for faculty [1,8]. This paper describes a teaching and learning process implemented across two concurrent, clinically-oriented, first-year Doctor of Physical Therapy (DPT) courses that resulted in a time-efficient, active, and integrative professional behavior learning activity.

Review of Literature

Professional behaviors in the health professions

The challenges of defining and teaching professional behaviors in health professions education are well documented and there have been several studies describing different methods used to instruct professional behaviors [2,4-7,9,10]. Wear and Castellani [6] describe a method of curriculum that stresses the importance of medical knowledge as well as professional behavior skills such as communication,

compassion, and responsibility that are necessary to develop well-rounded, quality physicians. Threading professional behavior learning opportunities across multiple courses throughout the curriculum has been identified as beneficial and allows for group interactions, formation and review of individual development plans, and faculty follow-up over time [4] Extending lecture-based professional behavior training to hands-on, applied activities outside the traditional classroom environment has also been reported as effective [4,11]. Active membership in discipline-related professional organizations and opportunities to participate in legislative advocacy and ethical decision making have all been documented in the literature as effective methods of developing professional behavior through engagement outside the classroom [2,10].

Mentoring and role modeling can be very beneficial [5,9], although some believe that for these techniques to be truly effective, faculty must know they are being viewed as role models and must provide follow-up with those they are mentoring [11]. Mentor-mentee relationships provide opportunities for faculty to share their own lived experiences with students and stories about real world situations can provide invaluable perspective and context for learning professional behaviors [2,10]. Shepard suggested combining role modeling with role playing and stressed the importance of consistent, collaborative role modeling between clinical and academic instructors [2]. Peer assessment also has been utilized in teaching professional behaviors. Proponents of this technique document that since students typically know each other better than faculty know students, student peer assessments of behavior usually are more accurate than faculty perceptions. Also, the process of providing peer assessment as well as reflecting on feedback received from peers can be an active learning activity [12,13].

Dutton and Sellheim discussed the impact of the implicit curriculum on the development of professional behaviors and found that it may have more impact than the formal curriculum [14]. The implicit curriculum consists of the informal and the hidden curricula. The informal curriculum is based on informal interactions between faculty and students, for example discussions that occur during office hours or after class. The hidden curriculum is the culture of the program, college, or university that influences student beliefs and actions. In a multi-site, qualitative study, Dutton and Sellheim found that physical therapist students believed that the informal and hidden curricula influenced what and how they learned about professional values [14].

Professional behaviors in physical therapist education

May et al. published detailed descriptions of professional behaviors seen as necessary for successful practice as physical therapists in 1995 [15]. In this consensus report, ten “generic abilities” were identified and defined along with a list of suggested beginning, developing, and advanced behavioral criteria used for student assessment. Jette and Portney’s validation study later refined the list of generic abilities down to seven and referred to them as “professional behaviors” required for all physical therapists. The seven professional behaviors validated in this study were: professionalism, critical thinking, professional development, communication management, personal balance, interpersonal skills, and working relationships [16]. The new terminology, “professional behaviors” was adopted by May and Iglarsh in 2010 [17].

Published works described the use of multiple methods of teaching professional behaviors in physical therapist education were similar to those mentioned earlier including service learning projects, role modeling, patient cases with reflection, and peer/self-assessments combined with instructor feedback [1,3,8,18,19]. MacDonald et al. used a Delphi process to identify various techniques that could facilitate professional behavior development in student physical therapists. Participants reached consensus on five primary methods: leading by example (role modeling), explicit teaching, mentoring, reflective imaging (reflection), and wider-context education [8]. Echoing the benefits of experiential learning outside the traditional classroom, Anderson et al. described how participation in service learning activities enhanced students’ self-reflection and growth in professional behaviors [1]. They included emersion in community service and increased opportunity for self-exploration as benefits to these types of applied professional behavior education activities [1].

Creativity and technology can be utilized to enhance student interest and engagement in professional behavior education within the boundaries of traditional classrooms [3,18]. Utilizing a somewhat unusual setting, Youdas et al. documented the successful use of serial student self-assessments, peer assessments, and faculty feedback as a means to facilitate learning and application of professional behaviors through dissection experiences in a semester-long gross anatomy laboratory course [3]. Multiple studies have shown video review of performance to be a beneficial learning

tool [20-26]. Various techniques of utilizing video review have been applied including small group review, peer review, and faculty-student review. However, peer and faculty review sessions can be time consuming and difficult to organize.

Faculty involved in this study wanted to incorporate a meaningful professional behavior learning experience into an existing clinically-oriented, hands-on activity with high student engagement – a practical examination. Our research question was “Can a clinically-focused learning activity incorporating self-perceived strengths and weaknesses be utilized as an activity for reflecting on professional behaviors?” This qualitative research report describes an integrated, time-efficient professional behavior learning activity grounded in professionally-accepted constructs [16,17] implemented across two first-year DPT courses.

Materials and Methods

Research design

The research design was an observational study using a survey with qualitative analysis. A thematic content analysis was appropriate to analyze the data because of the types of data collected and the nature of the research question.

Participants

A sample of convenience of 41 first-year DPT students participated in the study. The only inclusion criterion was that students were enrolled in the DPT program. There were no exclusion criteria. The study was exempted from oversight by the Texas State University’s Institutional Review Board (# 2017470).

Data collection

Clinical Decision Making I (CDM I) and Examination Techniques (ET) are courses delivered over 15-weeks in the second semester (fall) of the curriculum. In CDM I, students engaged in a process of reflection using three self-assessments pertaining to their readiness for and performance on the ET midterm practical examinations as shown in Figure 1.

The three self-assessments included open-ended questions asking students to identify what they believed were their strongest and weakest areas of expected and actual practical performance. Students completed Self-Assessment 1 (SA-1) in week six to assess their readiness for the mid-term practical. SA-1 consisted of two open-ended questions: “What do you anticipate your strengths to be related to your future performance in the midterm practical?” and “What do you anticipate your weaknesses to be related to your future performance in the midterm practical?”

The second assessment (SA-2) was administered in week seven in conjunction with the mid-term practical exam and consisted of two open-ended questions: “What do you believe were your strongest areas of performance during the practical?” and “What do you believe were your weakest areas of performance during the practical?” Students completed SA-2 immediately after completing the practical examination, before leaving the testing room. Each student’s performance

on the mid-term practical exam was video recorded and in weeks 10-13, each student received an electronic link to a secure website for independent review of their personal video. The students were given no instructions regarding this review and no feedback on the video reviews was given by faculty. In week 13, students completed Self-Assessment 3 (SA-3) based on personal review of their video. SA-3 consisted of four questions:

“After viewing the video, what did you identify as your strongest areas of performance?

After viewing the video, what did you identify as areas needing most improvement?

How did viewing the video change your perception of your strengths and weaknesses?

Do you think viewing this video will help you prepare for the final practical? Explain why or why not.”

All three self-assessments were submitted either electronically (SA-1 and SA-3) or in hard copy (SA-2) as part of the requirements for CDM I.

Data analysis

Thematic content analysis was used to describe the most important issues identified by the students. Comments from the open-ended responses were analyzed by the primary researcher into preliminary codes using NVivo 11™ software and 12 preliminary codes emerged from the data as shown in Table 1. Example comments from each theme were identified. Responses of each student were compared with preliminary codes and with every other participant to classify common themes. Recurring preliminary codes were consolidated resulting in nine final themes which were operationally defined using The Free Dictionary [27] and a professional document [28]. The final themes and the coding of each student’s responses were validated individually by the primary and secondary researchers with differing opinions in coding resolved through discussion. The third researcher would have provided a final decision in coding if agreement could not be reached, but that was not necessary.

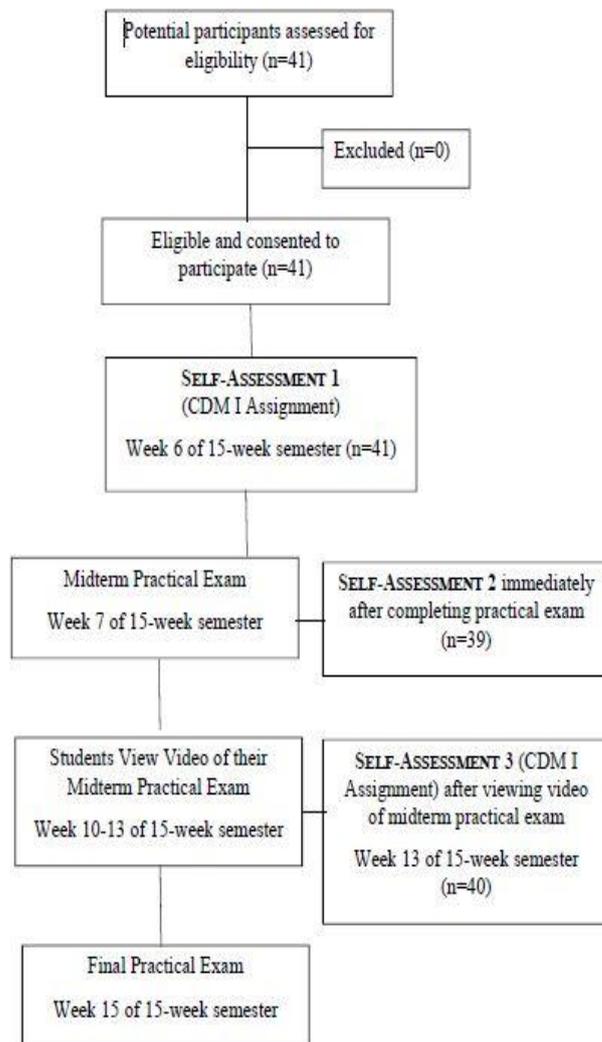


Figure 1: Flow chart for design.

Preliminary Codes	Descriptors	Final Themes
Anxiety	Anxiety, blanking out, nervous, rushing, speaking before thinking, stress management, test anxiety, lack of confidence	Stress Management
Communication	body language, listening skills, providing instructions, verbal communication	Communication
Confidence	Self-confidence in any area, feeling calm, lack of anxiety, composure	Self-Efficacy
Self-Awareness	self-awareness, self-monitoring, self-regulation	
Critical Thinking	Critical thinking/decisions, analysis, problem-solving, thinking on feet, adaptability, creativity, flexibility	Critical Thinking
Adaptability	Thinking-on-feet; adapting to patient needs	
Interpersonal Skill	Interpersonal skills, emotional intelligence, family factor, rapport, “sandbox skills”, patient comfort-psychological	Interpersonal Skill
Knowledge	Declarative knowledge, amount of information to remember, integration of knowledge, knowledge of material being tested, lack of knowledge	
Performance	Procedural knowledge, application of knowledge, efficiency, performance of techniques, safety, skill, time management in performance, patient comfort-physical	Knowledge

Preparation	Preparation, attending open labs, studying, understanding what to expect in practical exam	Preparation
Professionalism	exhibit professional conduct	Professionalism
Reflection	reflection-in-action, reflection-on-action, self-regulation, use of feedback	Reflection

Table 1: Primary codes and themes developed from thematic content analysis.

Results

Of the 41 first-year DPT students, 38 (93%) participated in all three self-assessments. Two students did not complete SA-2 and one student did not complete SA-3. In the total sample of 41 participants, there were 26 females and 15 males ranging in age from 22 to 40 years with a mean age of 26. The self-identified racial/ethnic backgrounds were 29 White (71%), eight Hispanic (20%), three African-American (7%), and one Asian (2%).

The final nine themes related to perceived strengths and weaknesses were: critical thinking, communication, interpersonal skills, professionalism, stress management, reflection, knowledge, and self-efficacy as shown in Table 1. Eight of these themes and associated student comments directly matched with the seven professional behaviors validated by Jette and Portney [16] and one theme, self-efficacy, matched indirectly as shown in Table 2. Each theme is operationally defined below and paired with example student comments.

Primary Themes	Operational Definition [27]	May and Iglarsh Themes [17]	May and Iglarsh Definition [17]
Reflection	The process of serious thought or consideration to improve understanding	Use of constructive feedback	The ability to seek out and identify quality sources of feedback, <i>reflect on and integrate the feedback</i> , and provide meaningful feedback to others.
Knowledge	The facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject	Commitment to learning	The ability to self-direct learning to include the identification of needs and sources of learning; and <i>to continually seek and apply new knowledge, behaviors, and skills</i>
Preparation	The actions taken to get ready for an event or undertaking	Effective use of time and resources	The <i>ability to manage time and resources</i> effectively to obtain the maximum possible benefit

Table 2: Indirect links of primary themes (italicized phrases demonstrate indirect links).

Critical thinking

Critical thinking is the ability to objectively analyze facts to evaluate, solve a problem, or to form a judgment [27]. Many student comments in this theme identified real-time problem-solving abilities and integration of overall patient data into decision making as strengths. Perceived weakness in critical thinking was linked to lack of basic knowledge or difficulty synthesizing information.

SA-1 *“Actively participating in lab has helped me critically think through different scenarios that will facilitate my performance in lab. Pausing to think through my options and possible outcomes allows me to understand scenarios more clearly and overall I believe they will assist me in performing well during the exam. I tend to look at problems on a larger scale because it enables me to take everything into consideration and find the most effective and efficient answer.”*

SA-1 *“Some strengths I anticipate to help me on this future midterm practical are critical analysis and evaluation. Critical analysis will help me because I have the ability to examine, identify, challenge assumptions, and imagine and explore alternatives. This will be helpful in a practical setting because that is exactly what you have to do in order to give the best care to the patient. Evaluation will also be a good strength for me because it is the ability to make judgments about the value of something.”*

SA-1 *“I think my critical analysis will be a potential weakness on the upcoming practical because I’m still trying to get the basics down and could be thrown for a loop if anything out of the ordinary occurs. My ability to come up with solutions on demand is still in the works.”*

Communication

Communication is the exchanging of information, meaning, and feelings by speaking, writing, or using some

other medium [27]. The majority of students identified communication as a strength in all three assessments. Although some students identified communication skills as a “natural” strength, several commented on consciously working to improve in this area. Students who identified communication as a weakness identified a problem using lay language versus medical terminology.

SA-1 *“I also anticipate that I will have better communication and articulation because they are skills I have been working on (since my mind processes things in Spanish first).”*

SA-3 *“I also feel confident in my ability to clearly communicate with the patient in a professional and patient friendly way.”*

SA-3 *“My anticipated weakness would be preparation in my verbiage for a “real” patient. I fear if I stumble in my words I might show a lack of confidence in which might snowball from there. While I will not speak to a patient like an automated recording, I need to practice what and how I say things.”*

Interpersonal skills

Interpersonal skills are the ability to communicate or interact well with other people [27]. Almost all students identified interpersonal skills as a strength across all three assessments. They commented on enjoying getting to know the patient and to work with them as a team. Some students that identified interpersonal skills as a weakness acknowledged that improvements could increase patient comfort and trust.

SA-1 *“I believe strength of mine is my patient interaction skills. I enjoy communicating with the patient, learning more about them, and making them feel like I truly care about them. Another strength of mine is encouraging and motivating the patient during care. I am fairly good at making a patient feel comfortable and encouraged while they are doing something that they consider to be uncomfortable.”*

SA-2 *“I could have done better engaging the patient in more light conversation, making sure they were more comfortable.”*

Professionalism

Professionalism is a demonstration of “core values by aspiring to and wisely applying principles of altruism, excellence, caring, ethics, respect, communication and accountability” [28]. Only one student identified professionalism as a weakness in SA-1 and no students identified it as a weakness in SA-2 or SA-3.

SA-1 *Finally, I believe strength of mine will be able to maintain and display professional behaviors throughout the practical with the best quality of care for the patient in mind.*

SA-1 *Staying professional and treating it like a real case scenario will be another weakness. I need to get in the mindset that this is not a test but a real case.*

SA-1 *I try to keep professional behavior in the back of my mind at all times, so I don’t need to worry about it when the practical comes. Instead, I hope the do’s and don’ts will be second nature.*

Stress management

Stress management is the ability to use techniques developed to help one cope with the physical and emotional effects of everyday life pressure [27]. Most of comments about stress management occurred in SA-1 as students were preparing for the midterm practical. Comments reflected feelings of anxiety with some describing management strategies.

SA-1 *“I anticipate my weakness related to my future performance in the midterm practical exam will be anxiety and nervousness. This really affects my strength; therefore, I really have to work on not being nervous. In one practical, I felt a lot of pressure to do well because it was a really big part of my grade, and I allowed the anxiety of doing well to out shine my strength of being comfortable around people. A comment from my professor was actually to work on my nervousness because it makes patients feel uncomfortable. This really made me disappointed in myself because being comfortable interacting with patients is something I really excel at.”*

SA-2 *“Being nervous and second-guessing myself. I know I completed some things incorrectly and it was too late to go back and correct it. I let myself be anxious instead of taking a deep breath and relaxing.”*

SA-3 *“My strengths will be in my attention to detail and to the patient as a person and not just a case to be examined. I plan to really take the time to speak with my patient and assess all the information they have to share, so that I am able to treat them fully and provide the best plan of care possible.”*

Reflection

Reflection is the process of serious thought or consideration to improve understanding [27]. Students commented on reflection both as a strength and a weakness only in SA-1. There were no student comments coded as “reflection” in SA-2 and SA-3.

SA-1 *“My “reflection in action” is a strength of mine when it comes to preparing for and performing in a practical situation because I make a constant attempt to think through every step of the process before and during a procedure or technique. This allows me to continually assess while performing the various techniques rather than just going through the motions.”*

SA-1 *“. . . but when I read the reflection IN action versus ON action, I realized I rarely am as present as a normal interaction IN the practical because of the nerves and shuffling through my mind for the correct answers.”*

Knowledge

Knowledge is facts, information, and skills acquired through experience or education including the theoretical and practical understanding of a subject [27]. Students identified strengths and weakness in both declarative and procedural knowledge. Most commented on the vast amount of information that they had to learn, integrate, and perform for the practical.

SA-1 *"I think I understand the material that we will be tested on in the upcoming practicals. I think I do pay attention to the detail of patient placement and positioning, and know the appropriate steps to take when performing ROM, flexibility tests."*

SA-1 *"My lack of understanding of the clinical scenario and what all must be taken into consideration regarding the treatment and outcomes measures for the patient. Overall I expect to know the material as best as I can, but I may have missed something important that will negatively affect my performance."*

SA-3 *"There is a ton of information to remember for the final and I don't have it all nailed down yet. I have the broad concepts but will forget details so I need to keep practicing so it becomes more second nature."*

Preparation

Preparation is the actions taken to get ready for an event or undertaking [27]. Student comments reflected almost equal perceptions of being prepared and not being prepared for the practical. Some students reported positive perceptions that credited utilization of additional lab practice or "open lab" time in preparing for practical exams while others reported negative perceptions of preparation due to a lack of time for practice. The overall number of examination techniques covered on the practical was also cited as a factor in preparation.

SA-1 *"I go to a lot of the open lab opportunities to practice the techniques and interventions and therefore I feel comfortable on what I can do. I know that I will practice over and over again before the practical in order to try and be as well prepared as possible."*

SA-1 *"I have gone to each open lab session and practiced being professional in my approach with a patient as well as honing my physical exam techniques."*

SA-1 *"I anticipate my weaknesses to be my level of preparedness regarding the material we will be expected to perform. This semester has felt extremely crammed and rushed."*

SA-3 *"I think my weakness will be remembering every MMT and ROM, now that we have learned so many."*

Self-efficacy

Self-efficacy is the confidence in one's ability to produce a desired result [27]. The majority of students reported high levels of confidence in their ability to do well on the midterm practical. Several comments on SA-2 and SA-3 indicated success on the practical helped boost self-efficacy.

SA-1 *I feel like I excel in displaying confidence. Even if I may not be the most confident in my abilities, I always seem to have a cool head and am able to speak calmly and confidently to my patient.*

SA-2 *I believe my strongest areas of performance was my confidence in knowing what I was doing and being comfortable interacting with my patient.*

Analysis of data regarding individual review of practical performance videos demonstrated most students perceived this as a positive experience. Several students reported that

reviewing their video helped them remember details about their performance that they had forgotten and that they were pleasantly surprised by how confident they appeared. A few students who felt they did not perform well chose not to view their video because they did not want to see their "mistakes" and felt seeing the video would make them more anxious for the final practical.

SA-3 *"I think this is super beneficial because sometimes we are so nervous during the practical that we cannot remember what we did wrong or what we answered in certain situations. It is also helpful to take a step back and see how we are actually performing versus how we may think we are performing."*

SA-3 *"I found it very beneficial to watch my video. First, because in the moment I was nervous and therefore afterwards when I wanted to reflect on how I did, I would forget some things. However, thanks to the video I could see exactly how I did and critique myself on what aspects I performed well or poorly. Personally, I cannot think of a negative reason of watching my video. I feel as though it can only help me to improve my skills . . . Overall I really liked the idea of having the video because it helped me to do a thorough self-reflection and allowed me to work on aspects that I felt needed some improvement."*

SA-3 *I felt that watching the video made me feel anxious because I already knew where I had messed up and had reflected on my performance. I feel like it made me over analyze little things about myself that just had to do with nerves. I don't want to over think about those little things during the final practical, but instead, focus on treating my patient correctly and interacting with them well. However, I do believe watching the video helped me that when I was actually interacting with my patient that I didn't come across as nervous as I felt. It also allowed me to see that I gave clear instructions to him.*

Discussion

The conceptual framework used in this study incorporated the models of professional behaviors described by May and Iglarsh [17] and Jette and Portney [16] as shown in Figure 2. As is typical in qualitative studies, the conceptual framework emerged during the thematic content analysis revealing nine primary themes from the data. Five of the themes directly linked to professional behaviors described by Jette and Portney: critical thinking, communication management, interpersonal skills, professionalism, and stress management [16]. Three themes indirectly linked to professional behaviors described by May and Iglarsh: reflection, knowledge, and preparation [17]. Of the nine themes identified in this study, only self-efficacy was not included in the traditional professional behaviors either directly or indirectly. However, in the authors' opinion, self-efficacy is an important characteristic necessary for success in any profession and we believed study data strongly supported its inclusion as an indirect, stand-alone theme.

An important finding that emerged from this study is that the students did not seem to perceive the self-assessments as learning activities focused on professional behaviors. Instead, they seemed to perceive the assessments as a way to improve

their performance on the practical examination, which was indeed the original intent of the learning activities and study. The students received no written or verbal instructions to use concepts or language related to the professional behaviors, but many of the concepts and terms were included in their reflections. This finding highlights the importance of the implicit curriculum in influencing students in their beliefs about professional behaviors. It was rewarding to see students integrate professional behavior terms and concepts previously covered without prompting in this activity.

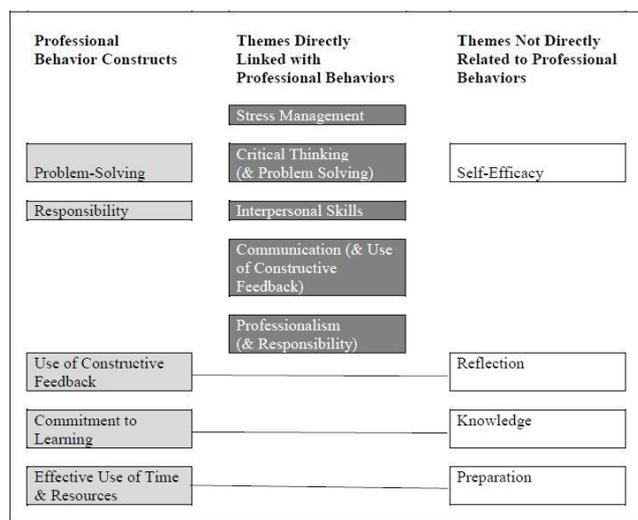


Figure 2: Relationship of Professional Behaviors [16,17] and Themes. Dark grey cells represent common constructs between previously described models and the current studies themes. Light grey cells represent constructs from Professional Behaviors not identified as themes. Clear cells represent themes not directly connected to Professional Behaviors. Linked grey and clear cells represent indirect connections.

The researchers were surprised by the extent to which the student comments indicated integration of reflection and professional behaviors. Comments demonstrated more reflection in SA-3 after review of video recordings of midterm practical exams; however, though reflection was evident, none of the comments included the word reflection or terms synonymous with reflection. Students commented on reflection both as strength and a weakness in SA-1 but not in SA-2 or SA-3. We interpret this as an integration of the concept of reflection by the students as they did not talk about reflection, but instead used reflection in their self-assessments. The authors propose that self-assessments similar to the ones used in this study may be a way to incorporate professional behaviors into the formal and informal curricula of other health professions' programs. The benefit of having the students actively apply the technique of reflection rather than passively write about a process of reflection could be advantageous to professional development across health professions.

Another important point this study highlighted, is that students reported benefit from individually reviewing their practical exam performance. This is significant in that this

activity required no additional faculty time, which is meaningful since there were 41 students and only three faculty members. Other studies have demonstrated benefits with use of video review, but they typically involve some level of faculty and/or peer participation or small group discussion [2-4,7,9,10]. With the advent of technology and video capability in today's classrooms, this type of individual student review might become a relatively easy way to engage students in an active, effective, and self-managed professional behavior learning activity. Based on the results, the researchers believe that the study answered the research question, demonstrating that a clinically-focused learning activity about perceived strengths and weaknesses can be utilized as an activity for reflecting on professional behaviors.

Limitations and Future Study

The primary limitations of this study are that it was conducted using a small number of participants in the same cohort in a single professional physical therapist program. This type of professional behavior learning activity might be further supported in future iterations of the activity with subsequent cohorts of students as well as expanding the study's scope to include additional physical therapist educational programs or other health professions programs in general. Additionally, the ability to generalize results from this study is dependent on the methods utilized in other programs for teaching professional behaviors. Other curricula might not support the between-class collaboration presented in this study or might not have hands-on, clinically-oriented practical examinations. Finally, some programs might not have the equipment or support for recording individual students during practical examinations.

Conclusion

Multiple methods of teaching professional behaviors have been identified, yet no one method has proven to be the most beneficial. The complex nature of teaching professional behaviors and variations in individual learning styles necessitates the use of multiple methods and iterations of exposure to the concept.

Teaching professional behaviors is commonly addressed directly through lectures, reflective writing, role playing, discussion, and other similar learning activities. The informal curriculum, based on informal teaching and learning between faculty and students, emphasizes the modeling of professional behaviors. The hidden curriculum of the culture of this specific program and its faculty also supports the concepts of professional behavior. The implicit curriculum, which includes the informal and hidden curricula, can have significant and long-lasting influences on student outcomes related to "attitudes, knowledge, and professional behavior" [14]. This paper described a teaching and learning process utilized in a clinically-oriented course that resulted in an active and integrative professional behavior learning activity. Data based on nine emerging themes identified from student self-assessments directly or indirectly linked with previously published information regarding professional behaviors. The researchers believe the incorporation of serial self-

assessments and individual video review combined with practical examinations to be an effective tool for teaching professional behaviors in health professions programs.

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