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How Patient Educators Teach Students: "Giving a Face to a Story"

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Abstract
Patient Educators are persons with specific pathologies that have participated in an education program in which they learn how to instruct students on physical examinations. The aim of this study was to explore the impact of graduate student experiences with Patient Educators during coursework on occupational therapy clinical internships. A phenomenological design was used to explore the lived experiences of students through a qualitative interview. As participants described their experiences with the Patient Educators, three primary themes emerged: (a) self-awareness, (b) confidence, and (c) empathy. The quotes from the transcriptions were organized into four sequential plot categories: (a) Before the Interaction, (b) During the Interaction, (c) Immediate Change, and (d) Impact on Clinical Internship. The results reveal a narrative of the learning process experienced by students from before the Patient Educators lab through clinical internships. These results suggest that incorporating Patient Educators in the classroom could be a critical component in preparing students for clinical internship and future clinical practice.

Keywords
clinical internship, clinical reasoning, clinical reasoning process, graduate students, Patient Educators, pedagogy

Cover Page Footnote
We would like to acknowledge the contributions of the participants for sharing their experiences and to the Patient Educators, who are committed to promoting effective teaching practices. Also we acknowledge the work of Anjuli Bala in providing editorial comments.

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Background

"It is a safe rule to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself." (Osler, 1903)

In order to prepare graduate students for clinical fieldwork (full-time work experiences in clinical settings), universities need effective pedagogical strategies to promote clinical reasoning and generalization of classroom learning to practice settings. In addition to factual knowledge, students need skills for hands-on practice and professional interaction with clients. The traditional method of didactic lectures alone is less able to enhance communication skills and retention of course content as compared to more interactive teaching methods (Mane, Kadu, & Bajaj, 2012). Active learning methods demonstrate increased competence and performance at a faster rate than traditional lectures (Bleske et al., 2014; Guagliardo & Hoiriis, 2013; Wiener, Plass, & Marz, 2009). In an effort to integrate more active learning opportunities into their curriculum, some programs have incorporated either Standardized Patients or Patient Educators.

Standardized Patients are actors who simulate clients by presenting themselves with a disorder or condition as prescribed by the professor. In a survey of 69 students who participated in a Standardized Patient encounter, more than 90% reported it was useful to learning and the experience increased their confidence in the evaluation process (Herge et al., 2013). Other studies have shown Standardized Patients promote increased communication skills and therapeutic use of self among students (Schultz & Marks, 2007; Webster, 2013). According to these studies, the Standardized Patient can be a beneficial asset to classroom instruction.

In contrast to Standardized Patients, Patient Educators (PEs), as defined in this study, are persons with specific pathologies that have participated in an education program in which they learn how to instruct students on performing physical examinations. According to The Health Foundation report (Spencer, Godolphin, Karpenko, & Towle, 2011), strong evidence supports short-term benefits for students, educators, institutions, and clients when opportunities for interaction with PEs are provided in the classroom setting (Spencer et al., 2011). Research shows that properly trained PEs can effectively prepare students to perform physical evaluations on clients (Bell, Badley, Glazier, & Poldre, 1997; Branch, Graves, Hanczyc, & Lipsky, 1999; Raj, Badcock, Brown, Deighton, & O'Reilly, 2006). In addition, experiences with PEs can lead to students' increased ability to retain knowledge, and, as a result, perform better on academic examinations (Branch & Lipsky, 1998). While studies have addressed these short-term benefits, no studies found have evaluated the impact of these experiences on later clinical fieldwork.

The aim of this study was to explore the impact of graduate student experiences with PEs during coursework on clinical fieldwork. We sought to gain an understanding of the learning process students go through as a result of their experiences and identify how that process occurs. Through the students' perspectives, we also sought to gain insight on the potential benefits of incorporating PEs into graduate school curriculum

for clinical practice, and to support the utilization of PEs in the classroom setting.

Methodology

Research Design

A phenomenological design was used to explore the lived experiences of students at Texas Woman's University through a qualitative interview. Phenomenology is the study of the lived experience and explores the world as people experience it (van Manen, 1990). The research team chose to use a phenomenological approach, which requires reflection and interpretation of experience on the part of the participant. Through this process, the researchers gained a deeper understanding of the students' common experience around learning from, interacting with, and reflecting on how PEs impact their practice. The study was approved by the Texas Woman's University Institutional Review Board (IRB). Pseudonyms are used throughout.

Participants

With IRB approval, the researchers invited 43 students from the Texas Woman's University Master's of Occupational Therapy (MOT) program via email. Due to an initially low response, snowball sampling was used to recruit more participants through the first few volunteers. The participants consisted of eight graduates of the program who had recently completed their clinical fieldwork (six-month internship following coursework). Each of the participants met the inclusion criteria of participating in the hands-on experiential lab with PEs living with arthritis. The lab experience was over one year prior to the interview. See Table 1 for participant information.

Table 1

Participant Information

Participant	Clinical Setting 1	Clinical Setting 2
Bailey	Inpatient Rehabilitation Hospital	Pediatric Hospital
Jordan	Skilled Nursing Facility	Public School
Riley	Inpatient/Outpatient Hospital	Pediatric Hospital
Alex	Skilled Nursing Facility	Inpatient/Outpatient Rehabilitation Clinic
Adrian	Inpatient Rehabilitation Hospital	Outpatient Pediatric Clinic
Georgie	Outpatient Adults/Pediatric Clinic	Adult/Hands Outpatient Clinic
Sean	Inpatient/Outpatient Rehabilitation Center	Inpatient/Outpatient Hospital
Charlie	Outpatient Assisted Living; Skilled Nursing Facility	Outpatient Pediatric Clinic

Data Collection

The research team created interview questions to evaluate student experiences with PEs and to determine how those experiences impacted them during their clinical fieldwork II internships. Prior to the interview, the participants completed a questionnaire about their clinical fieldwork II sites. The primary author conducted the interviews via

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Skype® (3), FaceTime® (2), and face-to-face (3) sessions. Face-to-face interviews were held at the university library or the local public library. The interviews were directed by five questions with additional prompts as noted in Figure 1. Interviews lasted between 10 and 27 minutes. For validation, verbatim transcripts were provided to the participants for verification and member checking of preliminary themes. Each participant approved the transcript with minor changes.

1. Describe your experience with the arthritis educators.
2. How did assessing the arthritis educators impact you in your fieldwork settings?
    - How did it impact your ability to identify assessments relating to clients?
    - How did it impact your thoughts about assessments?
3. How do you feel working with the arthritis educators affected your clinical reasoning?
    - Give me an example of how the arthritis educators affected your clinical reasoning.
    - Tell me about a time you thought about the arthritis educators.
        - What brought up the experience?
        - What did you do as a result?
4. What other diagnosis would have been beneficial to have a hands-on experience with prior to fieldwork?
5. If you could change anything about your experience with the arthritis educators, what would it be?

Figure 1. Interview questions and prompts

Data Analysis

An audit trail was maintained throughout the study. The data were organized in a narrative format to ensure each participants' story was accurately portrayed and to minimize the risk of premature closure. The data were analyzed sequentially using a Miles and Huberman's (1994) approach. The steps in the analysis involved: (a) identifying key terms, (b) restating key phrases, (c) reducing phrases and creating pattern clusters, (d) reducing clusters and attaching labels through pattern coding, (e) generalizing about each cluster, and (f) developing an explanatory framework. During the transcription process, the primary author used memo writing and identified key terms relevant to the research questions. The research team individually reviewed each transcript and met for preliminary triangulation in which we restated and reduced key phrases. The pattern clusters were labeled based on the time frame of the students' experience with the PEs. These time frames were viewed as reflective to the learning experience that is the focus of this research. The quotes from the transcriptions were organized into a framework of four sequential plot clusters: (a) before the interaction, (b) during the interaction, (c) immediate change, and (d) impact on clinical fieldwork. We member checked with four participants via e-mail and they confirmed the study findings.

Results

As the participants described their experiences with the PEs, three primary themes became evident: (a) self-awareness, (b) confidence, and (c) empathy. Self-awareness was defined as the ability to reflect inwardly and distinguish oneself as independent from the environment and other persons. Confidence was defined as certainty in oneself and one's abilities. Empathy was defined as "bearing witness to and fully understanding a client's physical, psychological, interpersonal, and emotional experience" (Taylor, 2008, p. 75). Analysis of the three themes revealed a developmental process. By structuring the three themes within a sequential narrative structure, the process of developing self-awareness, confidence, and empathy became clear. The sequential structure included the following four time frames. "Before the interaction" was defined as any feelings the participants identified that they experienced prior to encountering the PEs. "During the interaction" was defined as the participant's descriptions or thoughts about what occurred while they were with the PEs. "Immediate change" was defined as how the participants viewed the experience with the PEs and the impact it had on learning shortly after their experience. "Impact on clinical fieldwork" was defined as the participants' view on how the experience with the PEs affected their practice during clinical fieldwork.

Before the Interaction: "I wasn't sure how comfortable I would be."

Before interacting with the PEs, students questioned their abilities to be hands-on with clients. Bailey stated, "When we went in, I'm just like 'Oh my gosh, I'm gonna hurt this guy if I touch him'." The following statement from Jordan reflects self-awareness of her lack of confidence about working with an adult population.

> Before I got to OT school, I had a lot of pediatric experience. I wasn't sure how comfortable I would be putting my hands on adults that I didn't know very well. I was afraid that would be uncomfortable for me.

Bailey and Jordan were aware of their strengths and weaknesses. Prior to meeting the PEs, they were unsure of their ability to interact with clients in a comfortable and competent manner.

During the Interaction: "It was eye-opening."

The experience of interacting with PEs led to growth in the students' empathy and self-awareness. Riley stated, "I think that that was one of the best lab experiences that we had where we were actually getting to interact." Alex stated, "It was really great to actually see what we were reading about." Through visualizing and touching, Adrian felt empathy toward her PE.

> After we had all tested her on her shoulder joint, it actually was warm to the touch which was indicative of inflammation . . . it was interesting to see, oh, wow, it's not just inflammation after the person decided to play the piano for an hour and their CMC joint got inflamed, or they went and lifted boxes and helped somebody move and then their shoulder joint was inflamed.

Adrian took her experience with the PEs and internalized it to better understand the possible inflammation and pain a client may feel and how quickly inflammation occurs. Other participants experienced growth in self-awareness in response to the narratives. Through the PEs, Georgie's self-

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awareness increased as she grasped how the disease permeates the lives of those who live with it.

> It was eye-opening to learn all the different details that get overlooked by therapists. Because we understand that arthritis can really impact your life, but to learn about how it impacts sleep, dressing, socializing, all of the little bitty details that we all go through.

For many of the participants in this study, understanding how pervasive the disease is in the daily lives of clients was an "eye-opening" experience. Hearing about the experience firsthand increased the participants' awareness of the effects of the disease and taught them the importance of purposefully listening to the client's narrative.

Immediate Change: "It broke a little bit of a mental barrier."

The participants' experience with the PEs had an immediate impact on their own self-awareness, confidence, and empathy. Although they were not yet in a clinical setting, they expressed a change in perspective. Regarding empathy, Sean said she never "would have thought to even ask someone that" in reference to her PE's difficulty driving due to a limited ability to turn her head. Riley discussed how the experience taught her to be more aware of clients' personal stories and body language.

> I think that it emphasized, you know, being an active compassionate listener and letting them tell their story. And then, not necessarily listening for the little pieces for your, your assessment but listening to everything about them including watching their body language and listening to the tone of their voice and things like that. Because I think that tells a lot about how they're doing.

Riley's experience helped her realize the significance of actively listening to clients as they shared their stories. She recognized the need to pay attention to a client's narratives beyond the basic components needed for an assessment. She also acknowledged the significance of relating empathetically to the clients and being attentive to how they are sharing their storiesw for cues about their current state.

Some of the participants felt the experience increased their confidence interacting with clients. Bailey acknowledged this sentiment by stating, "I was more confident and more aware of how I was touching clients, and I think it also made me more confident in actually communicating with them." For Jordan, it gave her confidence that she could be comfortable and professional with clients.

> I feel like it broke a little bit of a mental barrier, and it gave me more confidence that I could do that, I could be professional, it wasn't a big deal. And if I was comfortable, the person I was working with would be comfortable, too. So that was a key lesson I was able to carry on into fieldwork.

Jordan explained how the experience with the PEs not only immediately impacted her, but also segued into her clinical fieldwork.

Impact on Clinical Fieldwork: "I did think about it a lot."

Beyond the immediate effects, the participants described how the PE lab continued to impact them over a year later while in their clinical fieldwork. When speaking about interacting with clients in the clinic, many of the participants expressed an increased level of confidence. Riley said, "It made me much more confident in

interviewing people and getting the information that I needed while still being like a compassionate, present, therapeutic person." Jordan generalized the confidence she gained from the experience to her entire clientele.

> I thought about them [the Patient Educators] at the beginning of fieldwork, when I was just starting to have to again put my hands on people I didn't know, I had just met. And I was glad to have had that opportunity and to know that it wasn't a big deal. It wasn't going to be weird for me; it wouldn't be weird for them.

Not only did the experience increase Jordan's confidence when interacting with the clients with arthritis, but it also gave her confidence when interacting with all clients. Because she had the opportunity to practice with PEs before her clinical fieldwork, Jordan felt she did not have to be anxious about being hands on with clients.

In addition to increased confidence, many of the participants expressed increased empathy toward clients. Riley stated, "I would say that how the arthritis educator experience affected me working with her was that I was able to just be really empathetic, um, and just like a supportive, therapeutic person for her." Adrian described how it impacted her interaction with clients.

> I feel that made me a little more sensitive in talking to my patients with arthritis and just making sure that I went the extra mile and asked them, 'What sort of limitations do you feel your arthritis has? Do you feel there are certain things that you can't perform as well as you used to be able to?' So, I feel like it helped me be a little bit more sensitive to their personal narrative.

Adrian was able to use her experience with the PEs to increase her ability to relate to clients on an empathetic level. By asking clients questions beyond a basic narrative, she realized she could use her knowledge to help clients succeed in doing what was important to them.

Finally, the experience with the PEs increased the participants' self-awareness of their interactions in clinical settings. Charlie said it helped her "to remember to ask what things the client feels limited in doing, and not just assume that function is the only thing to look at." Bailey learned how she could empower clients to advocate for themselves.

> Obviously, when it's brand new, they're not gonna be going out there and advocating or, you know, educating everybody else. But it kind of gave me a point where I could say okay, let's start off at this point in your education and then kind of help you, enable you, to, to educate others.

Working with the PEs made Bailey aware of how she could influence clients to go beyond receiving care to advocating for care. Through her experience, she knew in what direction to lead her clients and what support and training to give them.

Discussion

The aim of this study was to explore the lasting impact of graduate student experiences with PEs during coursework on occupational therapy clinical fieldwork. The results reveal a narrative of the learning process experienced by students from before the PEs lab through clinical fieldwork. For students who had the opportunity to participate in an experiential lab with PEs, the results support lasting benefits in the areas of self-awareness, confidence, and empathy, which in turn lead to increased clinical reasoning skills. These results

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suggest that incorporating PEs in the classroom could be a critical component in preparing students for clinical fieldwork and future clinical practice.

The Development of Clinical Reasoning

After a review of existing research and an analysis of the results of this study, we constructed a model to represent the learning process experienced by students (see Figure 2). Before the interaction with PEs, students demonstrate awareness of their strengths and weaknesses. They may feel uncertain about their ability to be hands on with clients and relate to them professionally. During the interaction, students experience a growth in empathy and self-awareness. Hearing the clients' stories gives them insight to understand what a client might be experiencing, and students become more self-aware of their own thought processes. The immediate change experienced by students is one of increased confidence, empathy, and self-awareness. Students feel they can better relate to clients' body language and stories more empathetically. They have gained confidence in their ability to interact with clients professionally and comfortably, and they become even more self-aware of their interactions. The impact on clinical fieldwork involves all three themes. Students confidently interact with clients, empathetically relate to clients' current states, and know what questions to ask to gain a deeper understanding. Finally, students display self-awareness of their ability to educate and empower clients to educate others about their condition or disability.

Prior research on the development of clinical reasoning produced two models related to our findings. Unsworth (2004) developed a model of basic reasoning skills, such as pragmatic reasoning ordered at the bottom, and higher level reasoning skills, such as narrative reasoning at the top. Further, these clinical reasoning processes influenced the client-centered worldview. We also found a changed perspective that generalizes to all clients. The integrative clinical reasoning process framework developed by Carrier, Levasseur, Bédard, and Desrosiers (2012) explains how clinical reasoning skills begin with general reasoning, and then, through external and internal factors, develop into personalized clinical reasoning. This process is similar to our model in describing how clinical reasoning becomes internalized as reflected in the students' internal factors of confidence and empathy. Carrier et al. (2012) also found that the interaction with the client was integral to the development of clinical reasoning.

Limitations

This study reveals a process of acquiring clinical reasoning skills as experienced by students; however, generalization of these results is limited due to the small number of participants. This study only examined one specific program and cohort, and it captured retrospective memories rather than the present thoughts of the participants. Future research in this area would benefit from larger, longitudinal studies examining multiple cohorts and capturing the participants' thoughts along the process of experiences with PEs.

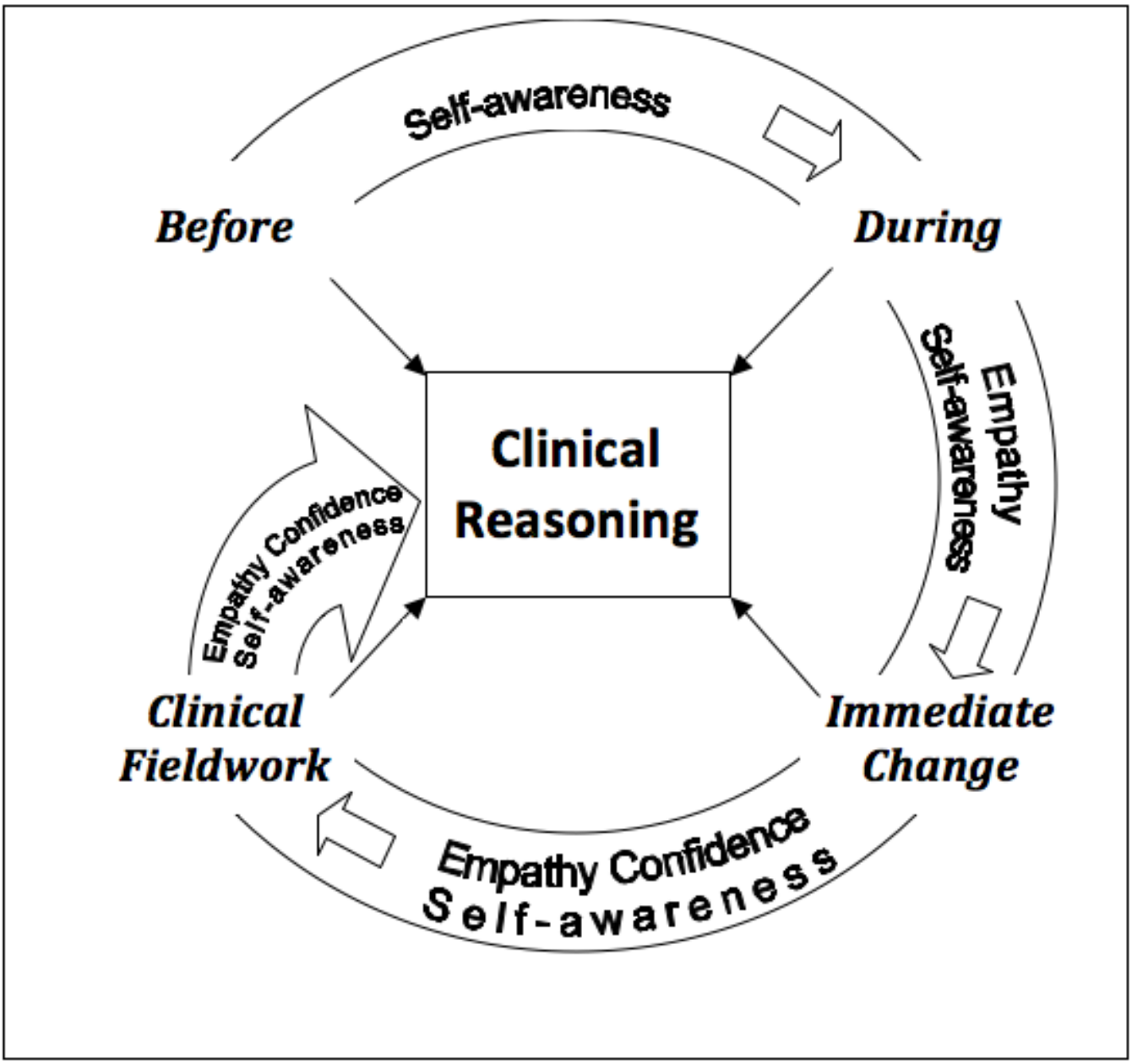

Figure 2. Clinical Reasoning Development Model

Conclusion

Through this study, we found that PEs impact students in a broader sense than simply helping them to understand a specific disorder. The interaction with the PEs is the catalyst for the acquisition of self-awareness, confidence, and empathy needed for clinical reasoning. An unanticipated benefit was the generalization of the experience across patient populations. While it likely would benefit students, there is not necessarily a need to incorporate PEs in the classroom for every disorder; rather, the experience of interacting with a PE in at least one classroom lab experience benefits students as they prepare for clinical fieldwork.

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