

2015

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Audette J, Roush S. Commentary: Considering Educational Perspectives and their Relevance to Allied Health Professional Education: Using Physical Therapy as an Example. *The Internet Journal of Allied Health Sciences and Practice*. 2015 Jul 01;13(3), Article 7.

Available at: <http://nsuworks.nova.edu/ijahsp/vol13/iss3/7/>

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CONSIDERING EDUCATIONAL PERSPECTIVES AND THEIR RELEVANCE
TO ALLIED HEALTH PROFESSIONAL EDUCATION: USING PHYSICAL THERAPY AS AN EXAMPLE

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ABSTRACT

Purpose: The purpose of this article is to introduce readers to three educational perspectives and explain their relevance to allied health professional education. Faculty in allied health professional education are often solely educated as clinicians and not as teachers, entering academia with limited background in educational theory. Professional organizations and accrediting bodies are highlighting the need for evidence and theory-based pedagogy and practice in educational settings. Method: An overview of three educational perspectives and to discuss their relevance to allied health professional education, using physical therapist education as an example. Conclusion: The three perspectives presented; progressive, critical and professional, are foundational. They provide diverse, yet complimentary ways of thinking about enhancing teaching and learning, program development, faculty development and the overall student experience. Consideration of key educational theoretical perspectives can inform program development and enhance teaching and learning. These theoretical perspectives are presented to inform rather than advocate for any one theoretical frame.

INTRODUCTION AND BACKGROUND

The 21st century has been a time of change for educational programs in the allied health professions. Educational programs have been asked to prove their worth to a variety of stakeholders including students and their parents, the educational institutions of which they are a part of, accrediting agencies, and the general public. Evidence based practice and pedagogy, cost effectiveness, and efficacy are expected. This has prompted change and introspection, however little has been written about how educational theory might inform those efforts. There is a paucity of information connecting educational theories to allied health education. This is unfortunate since such connections would enhance and validate much of what is done in teaching allied health professionals. Using physical therapist education as an example, the relevance of three educational perspectives will be demonstrated. These perspectives are 1) Progressive, 2) Critical, and 3) Professional.

Physical Therapist Education

Recently the World Confederation for Physical Therapy (WCPT) released a policy statement on physical therapist education around the world.¹ This document, along with the *WCPT Guidelines for Physical Therapist Professional Entry Level Education*² and the *WCPT Guidelines for Qualifications of Faculty for Physical Therapist Professional Entry Level Educational Programmes*,³ bring to the forefront the importance of scientific evidence to support physical therapy education practices. These documents clearly illustrate WCPT's call to physical therapy faculty to develop a better understanding of pedagogical practices and the theories that support them. Indeed, these WCPT policies elevate the importance of evidence-based practice in the classroom to the level associated with evidence-based practice in the clinic. As is seen throughout allied health education, however, nearly all faculty in physical therapy programs are educated as clinicians and not specifically as teachers. Most do not have a background in pedagogical practice or educational theory.^{4,5,6} Consequently, faculty most likely develop their courses and student learning experiences based on their own educational experiences and the experience of their faculty colleagues without consciously attending to theoretical foundations. Understanding basic educational theoretical perspectives however, can begin to address WCPT's evidence-based mandate for physical therapy education.

Consideration of educational theoretical perspectives can inform teaching and program development by supporting faculty mentor and orientation programs with theory about teaching. It can also create a framework and common language from which to consider professional development, student outcomes/performance, and faculty performance. Additionally, it can support and inform programs' missions and teaching philosophies, legitimize classroom conversations on topics that might be overlooked in a typical curriculum, or considered too controversial in the context of physical therapist education.

For individual faculty, an understanding of basic educational theories and their relationship with these theories can provide a framework for thinking about and reflecting on practice. For faculty who enter academia without any formal training in education it may be eye-opening to discover an entire body of scholarship devoted to educational theories, teaching, and student outcomes. Faculty may also be surprised to learn that educational theory is often situated within wide societal concepts such as democracy, social justice, freedom, and morality. All faculty can benefit from improved understanding of this body of work, which may ultimately impact students' skills and attributes that will enhance their preparation for practice.

A recent study⁶ explored the theoretical perspectives of 205 physical therapy faculty in the United States, measuring their familiarity with educational theory. Progressive educational theory, critical pedagogy theory, and professional education theory were examined. Participants' familiarity with these theories was quite limited, confirming the anecdotal perception that physical therapy faculty (at least in the United States) lack a strong pedagogical foundation. This suggests that physical therapy faculty in the United States are not conversant with educational theories and probably do not, unfortunately, use these frameworks to guide or support their growth as educators.

Theoretical Perspectives

The theoretical literature in education is vast. While much of that literature is specific to children, there are educational theories that are relevant to all learners, regardless of age. Two well-developed theories are considered here: 1) progressive perspective most often associated with John Dewey⁷⁻¹² and 2) critical pedagogy perspective put forth by Paulo Freire.^{7,13} These two theories, however, fail to include major factors influencing current allied health education, for example the necessary curriculum structure and associated workforce influences. To capture these elements, a professional education perspective is also considered.¹⁴⁻²⁰ Although less well developed, this perspective, incorporates the inherent goal of producing allied health practitioners who can competently function in multifaceted health care systems.

These three viewpoints represent specific and diverse perspectives on multiple elements of education including pedagogy, learning objectives, and student outcomes. Many educational theories have overlapping qualities which make them hard to differentiate from each other. These three, however, are diverse enough to offer self-contained and fundamental frames that

allow for comparison. For example, these theoretical perspectives serve as the foundation for diverse ways of thinking about and interacting with students, and developing courses and learning objectives. They are presented to inform rather than advocate for any one theoretical frame.

Progressive Educational Theory

Progressivism has had a major influence on educational thinking and practice. Progressivist educators see education as a developmental and progressive process and consider the ultimate goal of education to be empowering students to become autonomous, democratic citizens. Students are viewed as problem-solvers who develop increased understanding and control over learning in educational settings. John Dewey (1859 – 1952) is regarded as the father of progressive theory. He espoused the principle of "instrumentalism," which defines thinking as an activity, which, at its best, is directed toward resolving problems.

The "progressive education" movement of the 1920s was based on Dewey's ideas. Dewey's vast body of literature^{8,9,10} explores the notions that behavior is shaped by habit and that change produces conflict, which leads to creative thinking in order to try to reestablish control of the changing environment. Dewey believed that a person's thoughts were directly related to context and surroundings, and that a person's learning environment influenced his/her learning and creativity. Dewey believed in democracy and that education for all was the way to true democracy. He also believed that students learnt best through experiences that were meaningful and by solving problems in real-life situations. The pedagogical implications of Dewey's work are seen in experiential learning curricula^{9,21} which was the forerunner of today's service-learning pedagogy. Service-learning integrates meaningful community service, instruction, and reflection to enrich learning, teach civic responsibility, and strengthen communities.^{22,23}

Dewey noticeably did not address issues of race, culture, or ethnicity, and he had little to say about multiculturalism.⁷ Because of his strong belief in building community, at times Dewey's work takes on a Marxist tone, however, he was interested in gradual "social reconstruction" within a capitalist system, rather than revolution.⁷

Piaget²⁴(1964) is another prominent progressive theorist; he added a developmental perspective to Dewey's original ideas. Building on Piaget and Dewey, Kohlberg, and Mayer²⁵ focused on the interaction of the student with real-life environments, problems, and challenges. Like Dewey, Kohlberg and Mayer believed that educational progressivism is characterized by the construction of knowledge through providing students with problems to solve in cooperative and democratic work groups. They advocated for connecting problem-solving activities and community problems when possible. Kohlberg and Mayer²⁵ also stressed the importance of discourse and conversation and how it strengthens the link between cognitive development and moral development.

Educators interested in providing a responsive curriculum that produces students with the knowledge, interests, habits, and power to shape themselves and society are progressivists. Progressivist educators believe that teaching should be student-centered and based on functional, individual experience. Active problem-solving, social interaction, culture (context), and learner readiness for the construction of meaning^{24,26,27} are highlights of this approach. Although many theorists have been influenced by Dewey, he directly and indirectly continues to stand out as one of the primary educational theorists.

The main features of a progressivist theoretical perspective are relevant to and provide a lens for exploration in allied health professional education. As previously mentioned, Deweyan theorists see education as a progressive process with the student seen as a problem-solver. Progressivists believe these problem-solving students will develop their own increased understanding and control over learning. They also believe that democratic procedures should be used in the classroom or learning environment. The way to achieve this goal is to provide learning experiences that are meaningful and allow for solving challenges and problems in real-life situations since such educational situations stimulate active thinking and learning. Additionally, progressivists stress the importance of social interaction, discourse, and conversation and how integrating these elements into instruction strengthens the link between cognitive development and moral development. Progressivist educators draw on the individual talents and capabilities of students. Further, the social context and the autonomous, cooperative, and democratic habits of thought that encompass progressive pedagogy and learning mitigate the importance of the student-centered nature of progressive pedagogy. Progressivists do not leave students to their own devices; rather they provide context and structure that allows students' individual strengths to emerge and develop within a democratic system. The belief of progressivists is that context and structure should also lead the student to discovery and learning.

Not only do progressivists value the importance of active experimentation and problem solving, they also emphasize action followed by reflection. Progressivists see reflecting on activities as an integral part of the learning process because it makes learning experiences personal and provides an opportunity for individual construction of meaning and autonomy.

Critical Pedagogy Theory

Critical pedagogy theory is a second important educational theory that has greatly influenced educational thinking and practice. Paulo Freire is credited with applying critical educational theory to a practical critical pedagogy. Critical pedagogues base their ideas to varying degrees on the work of Karl Marx. Marx was concerned with issues of social justice, specifically that workers' rights might suffer under the growth of capitalism in Europe during the mid to late 19th century. Marxism came to stand for ideas that question the status quo and highlight social injustices. In the middle of the 20th century some educational theorists adopted Marxist ideas in relation to world events and educational practices and what came to be known as critical pedagogy grew from there. This educational movement is intended to help students develop awareness and consciousness about issues such as social injustice, freedom, and authoritarianism. Learners are expected to consider power relationships and to think about how to take active measures to right injustices. Critical educators tend to be guided by strong principles and passions.²⁸

Contrary to the cultural transmission theories ascribed by John Locke in the 1600's and E.D. Hirsh in the 1980's, Freire criticized and rejected the notion that students were empty vessels waiting to be filled by their teachers. Freire¹³ disliked the idea of a teacher-student dichotomy and preferred the idea of reciprocity between teachers and students. Like Dewey, he believed that learning is an active process, however, unlike Dewey, he was deeply interested in issues of diversity and culture and how education addressed those issues.²⁹

These were the cornerstone ideas that laid the groundwork for what is now known as "critical pedagogy." Critical pedagogues see students as emerging activists who should criticize accepted power structures and ideas. Learning is seen as the development of increased praxis, which is the ability to enact or practice a skill to transform social, cultural, and political environments to achieve social justice. Critical pedagogues believe in teaching that empowers, raises consciousness, and responds to social issues and needs. They feel students should be led to experience and to acknowledge problems in society. Following in Freire's footsteps, Ira Shor³⁰ later developed his problem-posing method to enhance student's ability to develop skills that would allow them to identify societal problems and act on them.

Other elements of critical pedagogy include working toward morality, social justice, and democracy and an opportunity for students to challenge the status quo. Educators who aspire to critical pedagogy use current world examples to elicit reaction to world events and their focus relates to righting social wrongs. They see education as political and feel that education should be used to examine the myths and values of mass culture and society. To a critical pedagogue, students are activists who should be encouraged to criticize accepted power structures and ideas. The practice of posing problems is integral, and the problems posed should reflect real world issues, particularly problems of social justice, to raise social consciousness. Students should be educated in ways that encourage the development of abilities to transform environments to achieve social justice. Educators who embrace the ideas of critical pedagogy empower students by raising their consciousness and prompting them to respond to social issues and needs, to challenge the status quo, and to question power relationships.

Consequently, critical education takes an anthropological perspective and makes use of the socioeconomic, racial, and cultural differences of the students to provide learning opportunities that develop socially alert, responsive, and aware citizens. In this way critical pedagogy is similar to progressive theory, since both view students' uneasiness and uncertainty positively as that will promote learning, action, and further inquiry. They both also value reflection and stress that students should act, reflect, then act again based on that reflection. Ultimately, critical pedagogues seek transformation.

Professional Education

A professional viewpoint is a third educational perspective relevant to allied health professional education. Unlike the previous two theories, the professional perspective is less well grounded in the literature. However, it provides a third way of exploring allied health education. This perspective has roots in science and technology, yet incorporates components of interpersonal communication, ethics and relationships.

The components that define a profession drive corresponding professional education. These components include prolonged training and a formal qualification, expert and specialized knowledge, manual and practical skills, high quality work, skill competence, high ethical and behavioral standards, duty to a client that often comes with a privilege of confidentiality, a

responsibility to put the interest of the client ahead of one's own interests, reasonable work morale and motivation with a desire to do a job well, and collegiality and mentorship. In addition, the needs and expectations of external stakeholders also influence professional education. Professional education, therefore, necessitates a major focus on learning skills and developing professional attributes that are needed in future employment. In healthcare this means practical and focused education as a means of producing clinically competent practitioners. In addition, professional education in healthcare must not only address patient care and treatment skills, but also professional behaviors such as reflection, critical thinking, clinical reasoning, professional development, communication, management, personal balance, interpersonal skills, and working relationships.³¹⁻³³

In the 1970's and 80's theorists such as Schön²⁰ and Bandura¹⁴⁻¹⁶ led the way in educational theory related to professional and adult education. Schön focused on reflective practice, "zones of mastery" or competence, and continuous learning, and believed that these practices differentiated professionals from other workers. Bandura's focus on moral agency and self-advocacy also support a professional perspective since control over moral values and conduct, moral reasoning, and moral agency are central to professional education.

The components that define a profession have been embedded in allied health professional education as core curricular issues and are key to improving the knowledge-in-practice^{20,21} aspects of professional education. This requires an acknowledgement from the field of the basic assumption that simply knowing classroom material is not enough, and that to be a good allied health professional requires more.

Focusing on professional behaviors in allied health professional education not only influences the allied health fields, but also influences larger and more important health care policy issues that define the context in which they practice. By focusing on professionalism, autonomy, and expert practice, allied health professionals can create a positive "social construction" for themselves by embodying and articulating a unique set of specific values, images and characteristics.³⁴ When a profession can do this, rather than have the construct created by external pressures and parties, it gains power and "social capital."³⁵ "Social capital" is a phrase that has a variety of meanings. Most appropriate to a profession is the definition by Fukuyama³⁶ who describes social capital as the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them. By gaining social trust, having positive communication, and professional norms, expectations, and sanctions allied health professionals positively contribute to their social capital.

Professionals are highly invested in "organizational learning" which includes issues such as continuous inquiry, a common vision, goals and purposes, collective commitment, information sharing, and collaboration.³⁷ During their professional education allied health professionals are taught the importance of professionalism, professional interaction, and a sense of collective commitment. A focus on professional behaviors from the time that students enter academic programs allows the profession to gain stability for times of change to allow the field to move ahead without losing its roots.³⁷

In the fields of medicine and nursing, the education literature has focused on various aspects of professional education such as reflective practice and on situations specific to patient care skills in clinical settings.³⁸ In physical therapy, professional behaviors have been looked at in terms of educational practices and curricular objectives. Communication has been found to be vital to professional success with patients, peers and supervisors.³⁹ Improved critical-thinking in physical therapy students has also been investigated.⁴⁰ Additional literature addresses the importance of professional behaviors in clinical settings following graduation.⁴¹⁻⁴⁵ Finally, service-learning has been explored in the literature as a means to develop professional behaviors such as commitment to learning, communication skills, problem-solving, professionalism, and social responsibility.¹⁹

Reynolds¹⁹ has also made a significant contribution in linking educational outcomes to specific evaluative accreditation criteria, professional standards, and clinical performance competencies. Reynolds argued that pedagogy should encourage students to focus on making practical contributions beyond their professional role and expanding their perception and understanding of health and illness, particularly for members of underserved populations. Reynold's work connects teaching and learning in physical therapy to these requirements in important and pragmatic ways, and illustrates that these requirements do, and should, influence faculty practice.

Although not tightly formulated into a formal theory, the developing literature on professional education provides a framework from which to consider pedagogy in allied health professional education. Educators with a strong professional perspective focus on skill competency, reflective practice, communication skills, professional responsibilities and ethics as they are related to the practice and work of physical therapists. While this type of education may or may not incorporate aspects of other educational theories, its primary purpose is to produce professional practitioners who will meet the needs of those they serve and the broader society.

DISCUSSION

This paper has begun to explore a field of inquiry aimed at understanding the educational perspectives that can inform and shape allied health education practices. Although this paper focuses on physical therapy education, the literature, findings, and assumptions can be generalized to other allied health disciplines.

As previously stated, physical therapy faculty often enter academia with little formal teaching experience. Given that history, little is known about their knowledge and use of educational theories in their work.⁴⁶ It has been shown that physical therapy educators naturally tend to relate best to the professional perspective⁶, however, consideration of other perspectives can support their growth as educators and move the profession forward. This can happen in three ways: 1) curriculum development that is responsive to the interests of external stakeholders and society at large, 2) faculty development that stimulates reflection about the quality of their teaching practice including student outcomes and student satisfaction, and 3) student development which supports their future roles as socially responsible global citizens.

Curriculum Development

First, considering curricular development, the literature tells us that, in general reveals that physical therapy faculty do not have a robust familiarity with preeminent educational theorists and identify most strongly with professional theory ideas. This limits curricular development in that it excludes potentially valuable approaches. In the past the professional perspective was enough to meet the interests of external stakeholders. Stakeholder interests, however, are rapidly evolving and now include expectations of a broader nature.

The predominance of the professional perspective in physical therapist education is not surprising given past external stakeholder expectations, which were relatively narrow. Ideas valued by progressive and critical pedagogues may have been viewed by faculty as optional or less important, e.g. health disparities and other diversity issues. As external stakeholder expectations evolve, however, curricula need to respond. Consideration of the theoretical work of progressivists and criticalists could meaningfully guide and contribute to curricular development. For example, progressivist ideas support furthering the use of experiential learning and community engagement. Criticalist ideas support the integration of topics such as global health issues, health disparities, multiculturalism, and social justice into the physical therapists' education. These theories give credibility and support to the curriculum as it responds the stakeholder interests. The ways in which these ideas and expectations are being addressed and "lived" in physical therapy education is in its infancy and programs struggle to integrate these new foci in ways that are meaningful and valuable for students. It is assumed that it is not well developed in other allied health education programs because there is no literature on this topic.

An additional way these theories support curriculum development is related to a program's mission, values and teaching philosophies. Grounding these foundational factors in a theoretical perspective(s) can be a powerful influence and result in education that is creative and dynamic. For example organizational mission and values could be reinforced in the learning environment by informing classroom practices. A mission statement that includes service to the community can be supported by the critical perspective. For example, having allied health professional students participate in a community pro bono clinic may be perceived as taking valuable time away from didactic or clinical classwork. A criticalist educational perspective, however, provides strong support for these activities. Allied health professional faculty can use the language of critical theorists to articulate the importance of this activity, which can also give the activity credibility. Theoretical perspectives could provide an integral link between practice and programmatic missions and philosophies.

Faculty Development

It seems likely that the physical therapy profession and its faculty have borrowed heavily from educational theory without being aware of it. A shift to a more obvious and spoken awareness and understanding of educational theory and related literature could improve allied health faculty teaching by providing rationale and evidence for teaching pedagogy. Knowledge of educational perspectives can validate and support faculty's natural inclinations and ultimately enrich the curriculum. A common understood language and familiarity with educational theories may be beneficial in shaping and optimizing educational practices. Faculty could utilize educational theory and language to discuss professional development, and promotion and tenure issues more adequately. This understanding might also allow program directors and faculty to explore the role of theoretical perspectives in faculty assignment and performance assessment.

An allied health education program director may see a faculty member's inclination toward a particular pedagogy and consider that when assigning teaching and other responsibilities. For example, a faculty member inclined toward a professional perspective may be assigned to teach courses in which objectives focus on skill acquisition. Within an individual course, it may

mean that a faculty member inclined toward critical perspectives could be encouraged to read that literature and integrate it into their teaching. In an ethics course, for example, this may mean adding a student learning objective related to involvement in righting socioeconomic, racial, and cultural injustices. Indeed, knowledge of various theoretical perspectives can also support the ideas of those faculty who want to explore controversial topics and issues that challenge the status quo. A theoretical background gives legitimacy to, and a framework for, the discussions of topics such as diversity, equity, poverty, disenfranchisement, privilege, and social justice. These topics have always been meant for discussion in higher education but are often only included tangentially in physical therapist education.

For individual faculty members the potential relevance of understanding his or her own theoretic perspective in relation to teaching and learning can inform practice, particularly for individual faculty who strive to increase the quality of their teaching, student outcomes, and student satisfaction. An understanding encourages instructors to think about who they are as teachers and to reflect on the outcomes they want to achieve with students. A better understanding of theory grounds instructional strategies in a conceptual base of knowledge. Improved understanding of educational theory and individual affiliation to those theories can help faculty grow professionally and to more effectively utilize instructional strategies that begin to serve broader philosophical, theoretical, and conceptual goals.

Student Development

Finally, students and their future patients will be the ultimate beneficiaries of integration of multiple theoretical frames in allied health professional education. The expectations and responsibilities of future allied health professionals are high. Provided with pedagogy that thoughtfully incorporates the strengths of multiple theoretical perspectives, students have the best chance to meet future expectations. Acknowledging multiple theories and matching them to desired outcomes facilitates achievement. In allied health professional education, desired student learning outcomes (in the cognitive, psychomotor, and affective domains) relate to clinical skills, professional behaviors, cultural competence, moral development, and social activism. For example, student outcomes based in a progressive perspective may include student involvement in solving real world and case study scenarios. Just as specific content may be covered in single or multiple courses, single or multiple perspectives might be appropriate for achieving learning outcomes. For instance, a desired learning outcome might be improved ability to apply classroom concepts in a real world situation such as developing and demonstrating a treatment plan based on neuromotor principles to a patient multiple years post stroke who has minimal resources. This example incorporates facets of all three of the perspectives addressed in this paper: progressive ideas support application in this patient's real world setting, critical ideas support consideration of socioeconomic issues and professional ideas relate to skill competence. Faculty who understand various theoretical perspectives can more purposefully adapt pedagogy to support student learning.

CONCLUSION

A typical allied health professional curriculum is very intense and made up almost exclusively of required courses, which leaves little room for electives or activities that do not address stakeholder expectations or result in required student outcomes. Evidence supporting educational approaches that result in positive learning outcomes is extremely important. With the substantial commitment of resources needed to develop and enhance allied health professional education around the world there is growing scrutiny and an expectation of accountability from students, parents, and other stakeholders.

Just as the WCPT seeks to support physical therapist educational programs around the world in attaining high levels of training for entry-level physical therapists and elevating the status of educational programs in less advanced countries, so too do other allied health professional organizations. It is vital that educators are well-prepared for their roles. Improved knowledge and understanding of educational theoretical perspectives will provide guidance in those endeavors. Although there is still much to be learned about allied health education, this paper begins to shed light on theoretical perspectives that have relevance to allied health education. A multi-theoretical perspective can support evidence-based curriculum development, faculty practice, and the development of allied health professionals who are prepared to address the multifaceted challenges that they will face in their careers.

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