2015

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Rules of Engagement: The Why, What, and How of Professional Engagement for Pharmacy Students

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Abstract
The development of student pharmacists must include inspiring within them a sense of engagement in their profession. This paper provides the rationale for and the potential implications of this concept, as well as an overview of experiences with professional engagement in student pharmacists at one college of pharmacy. Curricular-based experiences and research will be discussed, including the insights gained and suggestions for developing and encouraging professional engagement. Lastly, this article provides future direction for furthering professional engagement on both the conceptual and curricular level.

Introduction

When our members fail to be engaged in the profession, our profession has failed. Engagement refers to one's physical involvement, cognitive vigilance, and emotional connectedness with something,[1] such as one's profession. Expanding beyond prior conceptions such as work or school engagement, professional engagement encompasses the unique typology of engagement that a professional has within one's profession. Engagement in a profession is broader and more abstract; whereas a workplace or school are concrete structures and have roles that are easily defined, a profession is tangible only as defined by itself, society, and the professional. In student pharmacists, professional engagement captures their distinct engagement within the profession as they undergo professionalization, becoming acculturated and adopting the professional ethos of pharmacy.

This article describes the importance of, and our experiences with professional engagement in student pharmacists at one college of pharmacy. This emerging line of inquiry involves a novel extension of previous conceptualizations of engagement. We describe the unique ramifications of professional engagement for the development of student pharmacists and propose that professional engagement should be considered as instructors and schools monitor and evolve the student experience. Specifically, the purpose of this article is to describe why professional engagement is important, what our experiences with professional engagement in student pharmacists have been, and how we move forward.

The Importance of Professional Engagement

Other conceptions of engagement (e.g., student engagement, work engagement) have been correlated to positive outcomes. The Gallup Model for Student Success posits that engagement has direct and indirect effects on academic success,[2] and indeed student engagement has been linked to higher self-reported and actual academic performance.[3-5] Similarly, the Job Demands-Resources model posits a positive link between work engagement and job-related outcomes.[6-12] Engagement has been linked to several work-related outcomes including organizational commitment,[13,14] job satisfaction,[14,15] customer loyalty and satisfaction,[16,17] lower turnover,[7,16,17] lower absenteeism,[16] and increased productivity and profitability.[16-18] Businesses with the most engaged employees have higher return on assets, profitability, and shareholder value compared to firms with the least engaged employees.[19] Work engagement is related to fewer accidents at work,[16] and for health care workers, fewer patient safety errors.[17,20] The benefits of work engagement extend beyond just business outcomes. Engaged employees have higher health and wellbeing.[14,15,21-23]

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However, engagement as a professional is quite different than engagement as an employee or student. Workplaces and schools are physical environments. Engagement can be theorized as the employment of physical, emotional, and cognitive resources during role performances.[1] In fact, some measures of engagement examine the availability and utilization of resources in these roles, or the cognitive state experienced while involved in certain tasks. For instance, as a marker of work engagement, we could ask if time flies while a pharmacist is at their job. A profession, on the other hand, is a more abstract notion. One cannot go to the profession, and it is not necessarily something you do. The work of a profession may or may not take place in a workplace. Certainly, one can engage in the profession outside of a workplace, and almost assuredly a professional can be engaged in their work, but not the profession.

For student pharmacists, a similar yet more pronounced variant of this quagmire can be seen. They are students, becoming professionals, interacting and learning about the profession in a variety of manners. Student pharmacists are undergoing the process of professionalization, a unique crossroad between student and professional where they exist in a dual-role state. Other conceptions of engagement fail to capture this dynamic state. Furthermore, research in both pharmacy and nursing suggests that scales intended to assess student engagement do not adequately measure this construct in health professions students.[24,25] In a multi-college multi-year cohort of pharmacy students, the model fit of the National Survey of Student Engagement (NSSE), a measure of student engagement in undergraduate students, was unacceptable.[24] The exact reason for this incomplete fit is uncertain, but presumably was due to the differences between individuals in a professional program and an undergraduate program. In nursing students, NSSE scores differed significantly from those of undergraduate students.[25] It is notable that the NSSE was not designed or intended for use in professional students.[24]

Similar to student and work engagement, professional engagement should be correlated with positive outcomes for student pharmacists. For instance, high professional engagement could be associated with better grades, and less attrition. In addition, high professional engagement in student pharmacists may have much broader implications, such as becoming leaders within our professional associations, advocating for the profession, and working tirelessly to advance the profession. If these outcomes hold true, one can certainly see how nurturing professional engagement in students could dramatically impact the profession and ultimately even the health care system.

Despite its potential to influence educational and professional outcomes, there is a lack of published material describing, documenting, and declaring the importance of professional engagement. The literature that is available provides a diverse set of definitions and measures, often times drawing upon closely related concepts. In both medicine and teaching, professional engagement has been defined and conceptualized in a variety of ways. It has been used to refer to commitment to organizational climate,[26] satisfaction with professional working conditions,[27] and commitment to organizational objectives and goals.[28] It has been used synonymously with fulfillment,[29] and similarly to professional identity formation.[30] It has been measured using various indicators, such as number of: professional development activities and professional collaborations,[31] professional memberships and contacts,[32] and within-school interactions, outside of own school interactions, and involvement in leadership activities.[33] Other measures have included planned effort, planned persistence, professional development aspirations, and professional leadership aspirations.[34,35]

Likewise, in student pharmacists, when the term 'professional engagement' has been used it is generally as a synonym for something else, often times to mean participating as a professional, connecting with others, or using something; for instance, professional engagement with a new patient counseling technique. The term has been used in close connection to community engagement,[36] professionalism,[37,38] and leadership.[39,40] These uses of the term professional engagement have not robustly defined, measured, or elaborated on the concept. One tool has sought to measure aspects of professional engagement in pharmacy students specifically. Within the Professionalism Assessment Tool, the "Citizenship and Professional Engagement" domain contains four items assessing both community and professional engagement.[37] However, this small set of items does not capture the complete breadth of professional engagement and may not be adequate to direct curricular improvements. With a more thorough comprehension of this unique variable in development of professional students, educators would have the opportunity to better support student pharmacists in pursuing a sense of significance and enthusiasm for the profession.

Experience with Professional Engagement
Our awareness and investigation of professional engagement started in 2010, when it was initially identified as a concept with important ramifications for pharmacy students, yet relatively absent from the literature. Through both curricular experiences and research, we have furthered our understanding of professional engagement in student

pharmacists. These experiences include: a Delphi-process aimed at gaining consensus around a modified definition of professional engagement,[41] ongoing development of an instrument to measure professional engagement, a reflective assignment about professional engagement completed during experiential education, and several classroom discussions of professional engagement.

Overview of Curricular and Research Experiences
Student Delphi Process. Our initial research in professional engagement began with a modified-Delphi process in 2010. During this process, consensus was sought from highly engaged student pharmacists around a definition of professional engagement, professionally engaging and disengaging activities, and characteristics of those activities.[41] Beginning with a definition of work engagement,[42] professional engagement was defined as: *an energizing state of mind towards one's profession characterized by high energy, involvement with a sense of significance, enthusiasm, inspiration, pride, and being happily engrossed in one's profession*. This conceptual definition can guide research and inform curricular experiences designed to build professional engagement in student pharmacists. Insights from this initial research shaped subsequent instrument development, reflective assignments, and classroom discussions.

Instrument Development. Drawing upon qualitative data from the first round of the modified-Delphi process, an instrument to measure professional engagement in student pharmacists is currently being developed. Item development began in 2012, with iterative versions of an instrument administered in 2013 to a cohort of third year students, and an expanded version in 2014 to a cohort of first year students. A factor analysis of this preliminary instrument yielded six factors, illuminating distinct areas of professional engagement. These preliminary factors are: 1) Meaning: having purpose in work as a student pharmacist; 2) Excitement: passion, excitement, and pride in profession; 3) Pharmacy Guidance: having a role model and someone who cares about their development in the profession; 4) Peer Attitudes: having friends and classmates who are engaged; 5) Belonging: feeling connected and involved in the profession; 6) Growth and Value: finding value and growing in the profession. Subsequent expert review and cognitive interviews have resulted in a refined version administered in 2015 to another cohort of first year students. Research into the development of this instrument is ongoing.

Student Reflections on Professional Engagement. Based upon findings from the Delphi study, it was deemed important for development to have students reflect upon their professional engagement. Since 2012, students in their final year of the

PharmD program are provided the above definition of professional engagement, and prompted to reflect upon the 'What?', 'So What?', and 'Now What?' of a specific instance or situation when they felt professionally engaged. Additionally, students reflected upon how they intend to be engaged in the profession post-graduation, challenges they anticipate, and how they will overcome the challenges. Four cohorts of 4th year students have considered these prompts as part of a larger assignment. These reflections have been reviewed by the authors to understand the content and themes within. While these reflections are useful in aiding transition to practice, it was determined that reflecting upon ones' professional engagement earlier in the curriculum could prove helpful in informing the choices made during pharmacy school.

Classroom Discussions of Professional Engagement. To prompt student development and foster growth earlier, professional engagement was integrated in two separate course sessions in 2014, and one course session in 2015. During a professional development course for first year pharmacy students, one session was dedicated to professional involvement. In order to stimulate discussion, the above instrument was given to students prior to the class session, along with an open-ended question asking about insights gleaned while taking the instrument. In 2015, a session was dedicated to the importance of professional engagement in development. Prior to the session, students provided examples of their most engaged moment from their first year. Pre-session assignments were reviewed by the authors to identify any trends in student responses.

In addition, a two-hour session of an elective class on wellbeing focused on professional engagement. Two pre-assignments required students to reflect upon their experiences with professional engagement, the process of professional engagement, and connections to wellbeing. During discussion, these points were discussed at length.

Insights and Lessons Learned
Our cumulative work with professional engagement, although preliminary, has engendered a number of realizations and considerations surrounding this concept in student pharmacists. For the most part, these insights and lessons learned have come from a combination of our experiences, and indeed observations from our earliest encounters have been cemented and reinforced by more recent ones.

Characteristics vs. Activities. For students, professional engagement is closely related to involvement in key experiences. When asked what professionally engages them, they may provide a list of activities; these activities include

professional meetings, paid internships, volunteer opportunities, and experiential education. However, students become engaged through different activities to varying degrees. In fact, students do not agree on the specific activities;[41] one student's engaging activity is disengaging to another. As a result, strategies to improve or grow professional engagement cannot focus purely on gaining experiences and incorporating activities. Individualization, rather than a cookie cutter approach, is suggested as means to develop professional engagement.

Hidden within professionally engaging activities and experiences are characteristics that are much more important than the activities themselves. Prior work has identified several characteristics consistently across professionally engaging activities including: positive feelings about the profession, feelings of growth, relationships within the profession, relationships with patients and other professionals, representing the profession and performing as a professional, role models displaying model behavior, helping others, and doing something to advance the profession.[41] These characteristics are similar to the aforementioned factors that emerged from an instrument measuring professional engagement. Regardless of the activity being described as professionally engaging, students invariably and unwittingly describe these same core elements. First year students who do not yet feel engaged point to similar missing elements; a lack of a mentor in the profession, a lack of positive peer attitudes, and a lack of knowledge of how to become involved are cited as barriers to professional engagement. In order to successfully engage students in the profession, it is vital to ensure that activity design and curricular interventions include the aforementioned characteristics. Without these elements, students may not become engaged.

A Cycle of Engagement. A cycle of professional engagement appears to exist for student pharmacists. Students point to a progression, where one experience led them to feel engaged, thus leading them to explore other experiences where they could experience this state. In other words, just as participation appears to beget engagement, engagement appears to beget further participation. From this continued cycle student involvement and engagement in the profession grows. This process runs parallel to that of the broaden-and-build theory of positive emotions. Broaden-and-build posits that positive emotions result in a temporary state where the individual is open to broader thoughts and actions, and works to build his or her resources.[43] Professional engagement may operate as a positive emotion, or could bring about or result from other positive emotions, and thus could result in a state of openness to additional experiences. A similar cycle exists

in the Job Demands-Resources model, where work engagement results in job crafting, in order to build personal and job resources, consequently resulting in further engagement.[10-12]

It appears that this cycle can be initiated, or professional engagement may be encouraged, through participation in activities with certain professionally engaging characteristics. Discussion on what stimulates or grows professional engagement with a group of students in an elective course focused on this cycle, as did responses from first year students reflecting on their involvement over their first semester. Both groups indicated that when these initiating experiences do not occur, professional engagement may be stunted or not occur at all. Colleges of pharmacy play an important role in stimulating professional engagement by ensuring these experiences occur for students within the curriculum and the extra-curricular opportunities available for the student body.

Ties to Strengths. The process by which students become engaged is further revealed through instances where strengths are applied. Students feel engaged in the profession when they feel they fit, and when they apply their strengths to do something they are good at in the profession. Review of fourth year student reflections shows that instances of high engagement include times when they realized a hidden talent, unearthed a new passion, or exercised areas of expertise in a manner consistent with their personal strengths. In their fourth year reflections, some students explicitly described their highest engagement as a direct result of their Signature Themes of Talent, as identified by the Clifton Strengthsfinder.[44-46] Examples detail times when they felt they utilized their unique interests and skills to excel. These observations are consistent with the Gallup Student Success Model,[2] which posits that strengths influence engagement. Benefits of strengths training for student pharmacists and approaches have been detailed elsewhere.[39,47] As such, faculty have the ability to aid students in finding their strengths and unique place in the profession, and in turn, improve their professional engagement.

Professional Identity Formation. The mechanism whereby students become professionally engaged appears to be shared with that of identity formation. Professional identity formation can be conceptualized as a process involving students observing, experimenting, and evaluating possible selves within the profession through the experiences of a professional education program.[48] Similarly, there is a common thread across all of our work with professional engagement. The activities that students identify as

professionally engaging are often those in which they are experiencing, witnessing, or roleplaying a professional role. As students begin pharmacy school, instances that are professionally engaging allow them to connect with, experience, and 'try on' roles of the profession. At this point in their careers, these experiences are a gateway to identity formation. In other words, professional engagement may play an important role in developing professional identities. That being said, it is important to recognize that not all identity formation will be professionally engaging; students may experience roles that disengage them, influencing the formation of their professional identity but not instilling the state of mind consistent with professional engagement. It is vital to maximize the opportunities for students to develop their professional identity through experiences that are professionally engaging. As such, designing curricular experiences, and ensuring the presence of engaging characteristics of those activities may aid both professional engagement and identity formation.

Transitioning to practitioner. As students transition from classroom education, to experiential education, to practitioner, we observe important differences in their professional engagement. An interesting pattern noted in fourth year reflections is the decreased emphasis on certain types of engaging activities (e.g., health fairs, professional meeting attendance), and a focus on the moments within their experiential education (i.e., practice related experiences). At the transition of student to practitioner, professional identities are frequently observed to be in flux.[48,49] Prior literature in pharmacy has described a dissonance between the professional identities and roles learned in the curricular and experiential context, with the former being idealistic and the latter grounding them.[50] It is understandable that students at this stage of their career may relate more to their future role, and less to their student role. During this transition, colleges and schools can help students discover what will professionally engage them as their roles and environments change from that of a student. This transition also illuminates a gap in our knowledge and experience with professional engagement. Our experiences have centered on student pharmacists, and we have noted a change in what is professionally engaging for transitioning students; what is yet to be known is how exactly this construct operates in pharmacists.

A State of Mind. Using the conceptual definition above, a distinction can be made between engagement as a cognitive affective state of mind, rather than simply participation, or 'engagement' in an activity or experience. In our experience, students commonly mistake participation as engagement, initially. However, upon further probing it becomes clear that professional engagement is a cognitive-affective process, consistent with other conceptions of engagement,[42] driven by the cycle suggested above. It is vital that instructors understand the significance of this distinction as they attempt to guide students in planning for future engagement. Planning cannot be purely activity oriented (e.g., joining an organization does not mean you will automatically be professionally engaged). Instead, goal setting and planning must involve an understanding of the characteristics that engage the emerging practitioner and opportunities for experiences containing those characteristics.

Advancing Professional Engagement
To advance professional engagement, both conceptual development and curricular development are needed.

Conceptual Development. An instrument to measure professional engagement is currently being tested and refined. This work will validate the measure and determine its psychometric properties. Once validated, this instrument can be used to improve our conceptual understanding. The relationships between professional engagement and other concepts (e.g., professionalism, burnout) and outcomes (e.g., grades, professional activity participation, professional membership, professional commitment, wellbeing) can be investigated. Furthermore, the connection between professional identity development and professional engagement should be further elucidated through this research. This tool will also allow the investigation of the impacts of interventions to improve professional engagement. While difficult to measure certain downstream effects during students' careers, several long-term outcomes would be worthy of investigation. Future research could answer the question: Does professional engagement as a student pharmacist impact broader outcomes as a practitioner (e.g., efforts to advocate for the profession, efforts to advance the profession, working in advanced practice models)? With a stronger understanding of the inter-relationships, opportunities for synergistic interventions may emerge.

In addition, the process by which students become engaged in the profession should be explored. Development of a model is needed to elucidate the mechanism, correlates, and outcomes of professional engagement. Future qualitative work will help to reveal these underlying processes and connections with other concepts, while quantitative research will help to understand how the measurements of these various concepts are structurally related. By developing a model, pharmacy educators can tailor interventions to improve professional engagement.

Lastly, it is of utmost importance to acknowledge that this work has focused on student pharmacists. We believe the construct of professional engagement may operate differently in practicing pharmacists. Students are entering the profession and through experiences become connected to the profession, whereas practicing pharmacists are immersed in (or at least have access to) elements of the profession on a daily basis. Conceptually, it appears that changes occur as students transition from student to pharmacist, evidenced through fourth year reflections. More work is needed to understand this transition point, and how professional engagement operates in pharmacists.

Curricular Development. Support for extracurricular opportunities from administration should increase the chance of promulgating professional engagement, yet this strategy alone assuredly does not guarantee that all students will become engaged. Ideally, students would be guided to professional engagement through intentional design by professionally engaged faculty, preceptors, and upper-class students. Building a culture that recognizes and values the importance of optimistic peers, progressive role models and personalized attention to development is needed. To begin, instructors can introduce the concept as a cognitive affective state of mind and describe its characteristics. As an example, we have done this at the end the first professional year by asking students to come to class having identified their most professionally engaged moment as a student pharmacist, asking them to share it with a colleague, and fostering a class discussion on the concept. Through this conversation students reflect past the specific activity or event to determine the underlying elements that they found professionally engaging. This process allows a personal understanding of why it was significant and what it means. As students are planning for their professional development, emphasis could be placed on setting goals and selecting options after having given consideration to previous experiences that have resulted in feelings of professional engagement. As curricular and co-curricular experiences are designed, attention should be given to providing a breadth of initiating experiences. These experiences should be consistent with the characteristics of professional engagement, giving attention to opportunities for: positive feelings about the profession, feelings of growth, relationships within the profession, relationships with patients and other professionals, representing the profession and performing as a professional, role models displaying model behavior, helping others, and doing something to advance the profession.[27] Given that student organizations are vital in providing these opportunities, professional engagement is an ideal area partnering between student organization officers and faculty. Students may need support

in identifying why and how some experiences lead to this cognitive affective state. Working together, faculty and officers could design and incorporate debriefings and/or reflective writing to aid students in this analysis. Once professional engagement has been initiated, asking students "what stimulates and grows professional engagement?" may be helpful in creating consciousness of the concept. As students progress, attention to the use of one's talents, emerging interests and evolving identity becomes important in supporting continued advancement of a student's professional engagement. Given that one student may not be engaged by the same activities as another, examination of their engagement may be prompted by questions like "why was this activity/role professional engaging *for me*?" Lastly, we need to help prepare students to deal with the dissonance that can be felt as they transition from student to professional, and give them tools to remain engaged in the profession after graduation, when the opportunities and challenges are different. Additional investigation of methods to support student professional development is needed. Ultimately, a graduate emerges from this process and we would like that the graduate is professionally engaged.

Summary
Our experiences with professional engagement have affirmed its importance for student pharmacist development and provided us with preliminary tools and approaches for encouraging it. Despite the breadth of knowledge and experience that has been gained, further work is needed. Conceptually, it is necessary to measure professional engagement, to develop a model explaining the underlying process in student pharmacists, and to understand how engagement operates as students become practitioners. Professional engagement should be considered as instructors and schools monitor the student experience and evolve curricula. Classroom and curricular advances are needed to identify methods that foster professional engagement, and to improve student ability in assessing and planning for engagement particularly as roles change in the transition to practitioner. Colleges and schools will directly benefit from stronger professional engagement, as will current and future employers and the profession.

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