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Experiential Learning and Clinical Education

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Abstract

Graduates of clinical health care programs are expected to enter the workforce with professional skills applicable to the current healthcare setting. The authors believe the use of experiential education, where students are purposefully engaged in direct experience with an emphasis on reflection, increases the ability of students to develop clinical skills during their undergraduate and graduate education. This paper discusses the role of experiential learning for adult students in the clinical environment.

Introduction

Adult learners in clinical health care programs need certain prescribed skills and knowledge for their work in the community and industry. According to the Association for Experiential Education (2014), "Experiential education is a philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities" (para. 3). The purpose of this paper is to examine the advantages of experiential learning for adult students who are enrolled in health care programs that require student participation in a clinical environment. In clinical programs housed in colleges and universities, experiential learning can be an important component of the instructional process. A conventional classroom tends to place the learning emphasis on the instructor who provides theoretical information, while the learner absorbs facts and applies them to a future quiz or test. Although students need certain basic knowledge from education, the act of acquiring this knowledge passively limits students in the ability to transfer skills to a clinical setting. Experiential education can be one of the key methods for effectively teaching adult learners in clinical health care programs. This paper discusses the application of experiential learning to adult education and clinical programs, including examples and recommendations.

Experiential Learning

Experiential learning is defined by Kolb (1984) as the process where knowledge is created through the transformation of experience. This type of learning is different from other learning theories as it acknowledges experience in the learning process (Svinivki & McKeachie, 2011). For example, cognitive learning theories emphasize cognition of affect, while behavioral learning theories tend to omit the role of subjective experience in the learning process (Cantor, 1997). These experiences can take place within or outside of the classroom, and are most effective when they offer meaning to the student (Svinivki & McKeachie, 2011).

The experiential learning process involves a number of steps that offer a “hands on” experience to students and helps them engage with the content and reflect upon the application (Haynes, 2007). According to UC Davis (2011), an experiential learning activity must include exploration, sharing, processing, generalizing, and application. This requires the student to perform an activity or task, share the results and observations, discuss and then reflect on the process, connecting it with real world examples and applying it to another situation. These steps help demonstrate to the student that while the traditional content is important, a major factor is the learning process, which is at the center of experiential learning (Northern Illinois University, 2011).

Adult Learning

While learning theories are often applied to and described in the K-12 educational setting, many methods have been used in adult education. Adult learning can be a more non-authoritarian, informal experience, where the teacher acts as a facilitator of learning, assisting the adult students in connecting new material to past experiences. Adults differ in how they interact with their learning environment and material, as well as with other adult learners; many times they have a number of other roles including employee, spouse, parent, etc. Adult learning is a constant balance of multiple responsibilities and time demands. Adult learners are typically goal-oriented with a purpose for their learning, which is often self-initiated and retained throughout the lifetime. (Merriam, Caffarella, & Baumgartner, 2007)

Learning that takes place in the classroom differs from learning that takes place externally. In the school setting, learning is usually rewarded, students are typically individually accountable, material is regularly taught without the use of typical tools such as calculators, and learning is often decontextualized. Thus, it is important for the adult learner to connect material presented in the classroom with their external roles. Adults need to connect material with previous experiences and with “real life.” The wide age range of adult learners and various life stages requires anchoring and multiple methods of instruction, and adults often prefer self-directed experiences. The abundance of life experiences is a great value to the classroom, and sharing these should be promoted. Adults need previous knowledge bridged to new knowledge and the opportunity to practice skills through application and feedback. (Merriam, Caffarella, & Baumgartner, 2007; Yopp, 2003)

Adult learning theories address these unique attributes of the adult learner. Malcolm Knowles’ (1970) andragogy describes the art and science of adult education and is based on a number of assumptions: (1) as humans mature, they move from a dependent personality to being more self-directive; (2) adults have a larger amount of previous experience, a great resource for learning; (3) an adult’s readiness to learn is based on the social role; (4) adults seek immediate application

over future knowledge; (5) internal motivations are more effective than external; and (6) adults need meaning in what they are learning (Merriam, Caffarella, & Baumgartner, 2007). Experiential learning offers a method to reach adult learners, providing application and meaning to course material and promoting internal motivation and the social value of learning.

Clinical Education

Clinical programs are common in healthcare education and include a professional practicum experience that requires students to shadow at facilities, much like an apprenticeship model. This is a large part of clinical education and reflects the social-cultural learning theory. This hands-on experience is invaluable to students as they learn what will be expected of them upon graduation. Clinical supervisors, the “experts” at the facilities, mentor students to help bridge the gap between school and practical application. In addition to on-site practical application, many clinical programs include simulations. Live class sessions may also include in-class analyses of case studies, encouraging problem solving through group discussion. Many pre-requisite courses tend to use more behavioral and cognitive learning theories in teaching basic vocabulary, terminology, structures, and processes. As students embark on more discipline-specific courses within their majors, these classes need to offer more social-cultural and experiential learning opportunities (McNeish, 2011). In order to prepare for the often unpredictable and stressful nature of a healthcare setting, it is important that students are exposed to real world scenarios before their practicum experience in a safe environment that allows for mistakes and learning opportunities to be made (Beckem & Watkins, 2012). For example, simulation training is interactive, participative and applied. In a 2006 study of medical students, simulation was used to study common crisis scenarios. Students who were exposed to simulation in common crisis scenarios tended to score higher. The conclusion was that experiential teaching methods with simulation resulted in better learning of crisis management (Ti, Tan, Khoo, & Chen, 2006).

Experiential Learning Examples in Clinical Education

The following examples are based on authors’ observations and experimentations over the years.

Specialized software in the health information management curriculum utilized for the coding classroom/lab. The health information management curriculum coding education courses require a focus on what to code, how to get the correct code(s) and sequencing. While textbooks and exams can address basic concepts, including vocabulary and guidelines, there is often a gap between understanding the structure of a coding system and actually being able to apply it. Using coding software, typically called an encoder, in the classroom/lab with simulated patient charts provides an experiential learning experience that mimics the work setting. Students are able to apply critical inquiry and problem solving skills along with their content knowledge to review a chart, analyze the documentation, and assign appropriate codes in the necessary sequence. Having this experience in the classroom/lab eases the transition to the clinical setting upon externship and graduation.

Mobile technology in the respiratory therapy classroom. The role of mobile technology in experiential learning for respiratory therapy students in the intensive care unit within a hospital is an invaluable teaching tool. A student’s clinical experience can depend on many factors, one of which is the critical nature of the patients they are working with on a day to day basis. The use

of ventilator graphics recordings via mobile technology, such as an iPad, allows for a shared clinical experience for an entire class rather than an individual student. Complex critical patients receiving mechanical ventilation require a high knowledge level of ventilator graphics interpretation, only achieved through repetition. Individual students can record ventilator graphics on patients they are treating, create a case study and present their findings to classmates. The repetitive practice of graphics interpretation paired with a clinical scenario allows for experiential learning to occur in the classroom setting.

Simulation laboratory for radiologic science students. Use of an energized simulation laboratory provides students in the radiologic sciences the opportunity to better learn and understand the role of imaging professionals in the health care realm. Students utilize the laboratory to develop the basic skills of patient care; practice communication with patients and hospital personnel, both verbal and written; maneuver imaging equipment; and manipulate image quality factors. More specifically, scenarios can be developed for students to work through an imaging procedure from initial order to submission of images to the radiologist for interpretation. Phantoms, student volunteers, or standardized patients can be used to provide the students with a variety of opportunities to emulate imaging procedures. Laboratory experiences can be developed to meet specific learning objectives which aid students in preparing for more effective and efficient clinical participation as a team player, patient advocate, and health care professional.

Multiple elements of experiential learning can be seen in the prior examples. While the outcomes are important, the focus is on learning as a process, and offering these experiences in a classroom setting provides students a safe environment to learn these skills where a mistake will not lead to a severe outcome, such as a life lost. The learning is grounded within the experiences provided as a holistic process where students can adapt to the situation within the simulated environment provided. Students gain hands-on knowledge of processes by interacting with a physical experience and are provided with opportunities for reflection. (Kolb, 1984; Kolb & Kolb, 2005)

Recommendations

The acceptable practices in clinical education require a framework for understanding the content, processes, and skills necessary to provide safe, quality patient care and support. Although instructors make connections to help students find meaning and better retain information, experiential learning is the key to connecting the classroom and the clinical setting. The professional practicum is an essential component of clinical education, but it alone would not work as students would be ill-prepared when entering facilities and clinical supervisors do not have the time to start at the basic level. It is expected that the student has the basic professional skillset and will be able to be partly self-sufficient. To build this confidence and skillset, students need to be provided experiential learning opportunities within the classroom.

Such experiential learning opportunities can be time-consuming and expensive to create, but collaboration amongst faculty, universities, and the community can lighten the burden (Beckem & Watkins, 2012). Experiential learning enhances the interpersonal component of working within a team (Lavender, Miller, Church, Chen, Muresan, & Adams, 2014). According to the World Health Organization (2010), practicing collaboration among various disciplines in the health system to integrate common goals can reap substantial benefits. Recent efforts in

university health education have focused on interprofessional education (IPE), “when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes” (WHO, 2010, p. 13). These initiatives focus on values and ethics for interprofessional practice, roles and responsibilities of healthcare team members, interprofessional communication, and teams and teamwork (IPEC, 2011). Not only does this collaboration serve the students in learning these competencies, but sharing resources such as equipment, simulation laboratories, and teaching materials can lessen the burden on individual faculty and programs.

Additional recommendations for experiential learning include the use of a service learning component, integrating it into online courses, and group work. Students can go beyond the classroom to practice integration and application of knowledge (Wiese & Sherman, 2011). Service learning extends the classroom experience into the community when students participate in an organized service activity that meets identified community needs. This also offers an opportunity for students to interact with other disciplines (Wiese & Sherman, 2011). The added reflection on the service activity solidifies the experiential learning component, allowing students “to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility” (Bringle & Hatcher, 1996, p. 222). In addition to service learning, integration of experiential learning into the virtual classroom can enhance student diversity, connecting them with the larger world and offering cross-cultural connections (Merryfield, 2003). It can also assist in knowledge transfer, providing context and relevance to learning activities and empowering the learner to build upon existing knowledge (Beckem & Watkins, 2012). This may be done via gaming, virtual experiments, online simulations, narratives and storytelling, and virtual model building, much like those strategies used in the physical classroom (Kiili, 2004; Saskatoon Public Schools, 2009). Integrating team-based experiential learning activities enhances the interprofessional skills of students, promoting their abilities to work in teams during their clinical practicum and upon entering the workforce (Schwartz, n.d.).

Conclusions

The adult learner brings a wealth of experiences to the classroom, but also has unique needs as a student. It is essential that the content is addressed in multiple ways. The material must be relevant to the adult learner, offering meaning and connections to previous experiences and knowledge. Experiential learning can offer that connection, providing students relevant application and encouraging reflection on the experience. It is particularly effective in clinical education, when application of skills in practice may literally impact a life or death situation. The authors have offered just a few examples of using experiential education in clinical programs, including specialized software, the use of mobile technology, and simulation. Experiential learning, especially that paired with service learning, can also provide the opportunity for students to practice in interprofessional teams, enhancing communication and teamwork skills. It is not limited to the classroom setting, a teaching method that enhances the online environment as well. Providing experiential learning opportunities within the physical or virtual classroom allows students to practice skills, connect concepts, and reflect on processes in a safe learning environment that promotes interprofessional collaboration and communication.

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