CREATIVE CLINICAL TEACHING IN THE HEALTH PROFESSIONS

Sherri Melrose, Caroline Park, Beth Perry

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Dedication

To our students, who teach us to be better teachers and better people.

To our colleagues, who inspire us with their dedication to teaching excellence.

To our university, for giving us the freedom to be innovators.

To our families, for providing us with encouragement and purpose.

Contents

Preface and Acknowledgements

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Chapters

CHAPTER ONE - THEORETICAL FOUNDATIONS OF TEACHING AND LEARNING

"I am not a teacher; only a fellow traveler of whom you asked the way. I pointed ahead–– ahead of myself as well as of you." —George Bernard Shaw (1908)

Some educators may share George Bernard Shaw's (1908) notion that teaching is about learning with students as fellow travelers. Others may see the process of teaching in entirely different ways. However, few educators would disagree with Shaw's view that the practice of teaching involves pointing ahead through intentional processes that facilitate learning. Clinical teachers can guide learners with the help of established theoretical foundations from the discipline of education.

Theoretical foundations in the discipline of education include understanding and valuing how to integrate scholarship into the practice of teaching. They also include knowing how to apply conceptual frameworks, theories and models. ***Conceptual frameworks*** are broad, overarching views of the world. Conceptual frameworks differ from theories in that they are often more abstract and enduring than theories. ***Theories*** tend to offer more immediate, practical and factual guidance. They are more adaptable to change and may or may not be useful, depending on circumstance. ***Models*** offer even more specific direction and are often represented visually in a diagram or chart.

Theoretical foundations include terms such as educate, pedagogy and andragogy. The word ***educate*** comes from the Latin *educere*, which means to draw out and develop (*Oxford Dictionary*, n.d.). ***Pedagogy***, the art and science of education, seeks to understand practices and methods of instruction that can help teachers educate or draw out learners (About Education, n.d.). While pedagogy seeks to understand how to teach learners of all ages, ***andragogy*** is the study of helping adults learn (Knowles, 1984). Students enrolled in health care programs in post-secondary or higher education institutions are considered adult learners.

Historically, higher education in general and clinical teaching in particular placed little importance on the actual practice of how to teach. Professors and instructors in post-secondary institutions were honoured more for content knowledge of subject matter within their discipline than for instructional methods. However, since the time of Socrates, educational scholars have examined how learning occurs, what instructional practices facilitate learning, and the contexts where learning occurs best. Today, content knowledge alone is not enough—clinical teachers must ground their practice in an understanding of educational processes. In this chapter we provide a brief introduction to the scholarship of teaching and learning, common conceptual frameworks, and adult education theories and models. In each section we include creative practical strategies that educators in the health professions can readily use in their everyday clinical teaching practice.

The Scholarship of Teaching and Learning

In 1990, Earnest Boyer, then president of the Carnegie Foundation for Teaching, challenged an existing norm in higher education. Traditionally, university educators—known as the 'professoriate' or the 'academy'—were expected to demonstrate their scholarship primarily by researching and publishing in their areas of content expertise. In his seminal publication, *Scholarship Reconsidered: Priorities of the Professoriate,* Boyer (1990) called for a broader definition of scholarship that includes and recognizes excellent teaching and content area research as equally important. He proposed four separate, overlapping functions of scholarship: the scholarship of discovery, the scholarship of integration, the scholarship of application, and the scholarship of teaching. Boyer defined the different forms of scholarship as:

"**The scholarship of discovery** comes closest to what is meant when academics speak of 'research'...no tenets in the academy are held in higher regard that the commitment to knowledge for its own

sake…central to the work of higher learning…and contributes not only to the stock of human knowledge but also to the intellectual climate of college or university."

"**The scholarship of integration** underscores the need for scholars who give meaning to isolated facts…making connections across disciplines, placing the specialties in larger context, illuminating data in a revealing way…serious, disciplined work that seeks to interpret, draw together, and bring new insight to bear on original research… fitting one's research – or the research of others – into larger intellectual patterns."

"**The scholarship of application** moves toward engagement… reflecting the Zeitgeist of the nineteenth and early twentieth century that…land grant colleges…were founded on the principle that higher education must serve the interests of the larger community …tied to one's special field of knowledge and relate to, and flow directly out of, this professional activity…requiring the vigor – and the accountability – traditionally associated with research activities."

"Finally, we come to **the scholarship of teaching**…as a scholarly enterprise, teaching begins with what the teacher knows…those who teach must, above all, be well informed, and steeped in the knowledge of their fields…teaching is also a dynamic endeavor involving all analogies, metaphors, and images that build bridges between the teacher's understanding and the student's learning… yet, today teaching is often viewed as a routine function, tacked on, something almost anyone can do…defined as scholarship, however, teaching both educates and entices future scholars…and keeps the flame of scholarship alive."

The evolving definition of scholarship later came to include six expectations. To be considered scholarly, teachers' work must demonstrate clear goals, adequate preparation, appropriate methods, significant results, effective presentation, and reflective critique (Glassick, 2000; Glassick, Huber & Maeroff, 1997).

As the scholarship of teaching became more widely known, Lee Schulman, another president of the Carnegie Foundation, extended the definition even further by introducing four important standards. Work must be 1) made public in some manner; 2) have been subjected to peer review by members of one's intellectual or professional community; 3) citable, refutable, and able to be built upon; and 4) shared among members of that community (Shulman, 1998).

As the importance of learner roles in the process of teaching also gained recognition, Boyer's scholarship of teaching continued to evolve and is now referred to as the scholarship of teaching and learning. Journals such as the *International Journal for the Scholarship of Teaching and Learning*, the *Journal of the Scholarship of Teaching and Learning,* the *Canadian Journal for the Scholarship of Teaching and Learning* and the Canadian Association of Schools of Nursing (CASN) *Quality Advancement in Nursing Education* are examples of refereed journals committed to public dissemination of teachers' scholarly work. Educators in nursing (Cash & Tate, 2012; Duncan, Mahara & Holmes, 2014; Oermann, 2015), pharmacy (Gubbins, 2014), physical therapy (Anderson & Tunney, 2014) and other health professions are making concerted efforts to apply the scholarship of teaching and learning to both clinical and academic areas of practice.

In Canada, the CASN (2013) developed a seminal position statement on scholarship. This statement adapts Boyer's (1990) model of scholarship and includes the scholarship of teaching as an activity expected of nurse educators.

Creative Strategies

Everyday Scholarship

Imagine a new way to solve a common teaching dilemma or to introduce a new innovation into your clinical teaching practice. Consider the standards of scholarship as you think through the issues involved. How can you make public the solutions you develop or the innovations you create so others can benefit? How can you invite peers to review them? How and where can you cite the explanations of what you have done so others can know about them, refute them or extend them?

Common Conceptual Frameworks

Wiliam Purkey (1992) put forward ***invitational theory*** as an educational framework of learning and teaching relationships based on human value, responsibility and capabilities. Invitational learning is observed in social context, where learners should be invited by the teacher to develop their potentials. The four pillars of invitational theory are respect, trust, optimism and intentionality (Purkey, 1992). The invitational instructor invites learners in, welcomes them, creates warm and welcoming educational environments, intentionally provides learners with optimum learning opportunities, and bids learners a warm farewell at the conclusion of the learning experience.

In 1983 Parker Palmer introduced the term ***invitational classroom***. In particular Palmer emphasizes that "an air of hospitality" facilitates the inviting environment (1983, 1993, p. 71). Hospitality in Palmer's words means "receiving each other, our struggles, our newborn ideas, with openness and care" (1983, 1993, p. 74). Palmer concludes that both teachers and learners experience positive consequence when the classroom is invitational (Palmer, 1983, 1993, 1998, 2007).

Creative Strategies

Meaningful Introductions

To be true to invitational theory, the instructor needs to find ways to welcome learners to the course as a great host would welcome guests to a dinner party. Introductions are important if you adopt the invitational theory viewpoint. Rather than having learners just say their name etc., consider inviting them to share a special object (like their favourite tea cup or a picture of their special place). This will give fodder for discussion, help each person feel like an individual, and promote connections between learners in the group.

Constructivism

Constructivist thinking, as espoused by seminal educationalists such as Jean Piaget (1972) and Lev Vygotsky (1978), suggests that knowledge is constructed by learners themselves. Those who view the world through a constructivist lens believe that learners bring valuable existing knowledge to their learning experiences. They view the role of the teacher as building on that knowledge by providing personally meaningful activities.

Constructivist teachers also believe that learning will be enhanced by interactions with informed others such as teachers, practitioners and peers. Therefore, an important aspect of any constructivist teacher's practice is to plan for and facilitate opportunities for helpful social interaction. In clinical teaching environments, instructors using a constructivist conceptual perspective will create impactful connections individually with students and ensure that opportunities for connections with other students and staff members are possible.

Melrose, Park & Perry (2013) summarize constructivism as a conceptual framework:

> "Constructivist learning environments incorporate consensually validated knowledge and professional practice standards, and competencies are comprehensively evaluated. Students' misconceptions are identified and redirected. Learners are viewed as having a unique and individual zone of ability where they are able to complete an activity independently. Working collaboratively, students and teachers determine what assistance is needed to move toward increasing that zone of independence." (p.71)

Instructional scaffolding. Just as carpenters use scaffolds to support and prop up buildings during the construction process, educators use scaffolds to temporarily support learners. Scaffolds may be most needed at the beginning of learning experiences and are gradually decreased as students become increasingly able to achieve learning outcomes independently (Hagler, White & Morris, 2011; Morgan & Brooks, 2012; Sanders & Welk, 2005).

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Scaffolds initially provide substantive foundational knowledge, offer sequenced opportunities for understanding new ideas, and are gradually withdrawn as learners construct their own ways of understanding the material. Learning activities are designed to link to students' personal goals, connect theory to practice, and invite deep and critical reflection.

Clinical teachers can expect that instructional scaffolds such as a syllabus, course outcomes and required evaluation activities are in place for student groups. However, each clinical area offers unlimited possibilities for additional innovative scaffolds. For example, clinical teachers can create specific activities for their clinical agency placement area. They can tailor orientation activities to fit their specific practicum placement areas. They can create advance organizers such as concept maps and mind maps (Melrose, Park & Perry, 2013) illustrating approaches to patient care or procedures students will implement. They can sketch simple diagrams to supplement verbal or text instruction. They can model procedures and invite students to participate as much as they are able, turning the activity over to students themselves whenever possible. They can share their own clinical experiences, both those that involved clear professional responses and those that were ambiguous and without clear answers. Woodley (2015) suggests creating individualized orientation folders, either paper or electronic, to distribute to students at the beginning of their clinical rotation.

Creative Strategies

Craft a Catchy Mnemonic

Mnemonics are memory aids that use the first letters of a set of words to form sequences of information that are easy to remember. One example is the well-known ABC of resuscitation, 'A' for airway, 'B' for breathing and 'C' for circulation. You can craft a catchy mnemonic to help learners in your area remember critical points. Select three to five important pieces of information about a common condition or procedure. Choose one word to represent each of these critical points. Include at least one word starting with a vowel if possible. Share your mnemonic with students early in the clinical experience and encourage all members of the group to refer to it during discussions.

From the Field

Arrange Private One-to-One Student Meetings

Before each clinical practicum, arrange a private on-to-one meeting with each of your students. Draw from the following "Getting to Know You" set of questions to guide your discussions.

Student Name:

Name you wish to be called if different from above:

Email confirmation:

Phone number confirmation:

What is your style of learning?

What are some of your strengths and challenges?

What are your expectations of your instructor?

How can I help you as a learner?

How will I know when you are anxious, stressed or nervous?

What are you looking forward to in this upcoming nursing practice experience?

Why did you go into nursing and where do you see yourself after completing a BSN?

Do you have any nurses in your family or any nursing experience yourself?

Do you work outside of school?

What are your hobbies or interests?

Any other concerns I can address at this point?
Lynda Champoux BSN and colleagues, Instructor, Department of Nursing, Camosun College, Victoria, BC.

From the Field

Seek and Find – A Scaffolding Activity for Orientation

Lynda Champoux shares the following template for a scaffolding activity that she implements when orienting students to their clinical area. Lynda named the activity *Seek and Find*.

Seek and Find:

Welcome to ….unit name

Complete the "Seek and Find" orientation activity in teams of two. We'll discuss any questions which you were not able to answer at the end of the activity.

***Please be vigilant about maintaining the privacy and confidentiality of patient information as you access charts to complete this activity. Ask for permission before entering any patient rooms. Consider the impact on the patients and their privacy when you visit the dining room, hall or lounges.*

Select a Patient Chart with your partner and search out the following details:

Physician's or Doctor's Order sheet – Where is the most current order?

Nursing Narrative Notes or Patient Progress Record – What type of charting do they complete on a daily basis? Monthly?

Admission History – When and why was this client admitted to the unit?

Intake Assessment – Was an ADL assessment included?

List of Conditions – How would you determine the conditions that are a priority for this client? Current concerns versus conditions which are no longer a problem for the client?

Discharge Planning – How do you find information on when this patient is scheduled to be discharged from the unit?

Medication list

DNR orders and Advanced Directives

Search out the following information for this unit:

What is the phone number for the unit?

How does the call bell system work? How do you get help quickly if you need it?

Where is the diet sheet or record of the patients' diets?

How would you find out if a patient is on swallowing precautions?

Where would you be able to get a drink of milk or juice for your client?

How will you know a client's activity level or when to use a mechanical lift?

If a resident were to ask you to get them to the bathroom quickly, what information do you need to safely respond?

Where are the clean linen supplies? Adult briefs? Skin care products?

Where do you place used linens or patient clothing needing to be washed?

Which patients use the tub or shower and where are they located?

Where are the staff assignments or teams posted? Number of RNs, LPNs and HCAs? Where will the patient assignment sheets be posted?

Where would you find information on a resident's last bowel movement?

If they haven't had a BM for several days, where do you look for bowel care orders or protocols?

Where are the blood pressure cuffs and stethoscopes? Do they have an O2 sat monitor? A manual and an electronic BP cuff?

Does this unit have access to oxygen equipment or suction?

Where are the fire alarms, extinguishers and exits?

How do you respond as a student if the fire alarm goes off?

How do you respond if you witness a cardiac arrest?

Your client is worried about being ready for the physiotherapist's visit this morning. How do you know when the physio will be arriving?

A patient has just had an accident on the way to the bathroom. How will you handle the clean up? Is this your responsibility or the house keeping staff?

Where will you take your break or get a drink of water?

Let's regroup and finish the Seek and Find together at the agreed to time.

Lynda Champoux BSN, Instructor, Department of Nursing, Camosun College, Victoria, BC.

Transformational Learning

Adult educator Jack Mezirow (1978, 1981, 1997, 2009) is credited with articulating transformational learning as a framework for teaching and learning. This worldview suggests that learning involves meaningful and transformative shifts in students' established beliefs and assumptions. These shifts are expected to occur when disorienting dilemmas arise. In other words, learners can experience profound transformations when they have been deeply affected by a learning experience. Clinical learning environments offer limitless opportunities for both teachers and students to think in new and different ways and experience transformational learning.

Teachers grounding their practice in transformative learning find ways to challenge learners. They look for clinical experiences that have the potential to trigger new insights and invite critical reflection. They encourage students to question what they believe to be true. They also expect students to question what they are taught and what they are seeing in practice. Promoting critical thinking and critical reflection are key elements in this conceptual framework.

Critical thinking. Critical thinking involves analyzing, assessing and re-constructing (Critical Thinking Community, n.d.). Individuals who think critically seek out relevant information and make judgements, interpretations and inferences based on evidence and context (Brookfield, 2012; Burrell, 2014; Rowles, 2012; Turner, 2005; Zygmont & Moore, 2006). Socrates was one of the first educators to espouse the use of questioning methods by teachers (Socratic questioning) to require learners to think deeply, challenge their own assumptions, and gather evidence before accepting new ideas (Paul & Elder, 2007). Two clinical teaching activities that promote critical thinking are reflective journaling and case studies.

Critical reflection. Clinical components or programs in health professions often use *reflective journaling*. As an assignment, reflective journaling is well-suited to adult learners, helps bridge the theory-to-practice gap, and can promote reflective practice (Garrity, 2013). The process fosters personal and professional growth, empowerment, and development of knowledge, skills and attitudes (Garrity, 2013). As a transformative learning approach, reflective journaling creates needed introspective opportunities for students to identify and analyze their feelings of discomfort, stress or anxiety (Ganzer & Zauderer, 2013; Waldo & Hermanns, 2009).

Journals are often used as a student evaluation tool (Lasater & Nielsen, 2009; Ross, Mahal, Chinnapen, Kolar & Woodman, 2014; Waldo & Hermanns, 2009). Including reflective journaling in evaluation is a key advantage for students, providing an opportunity for them to articulate and share the experiences that transformed or shifted their thinking. Teachers or clinical staff members may not otherwise be aware of these experiences or of the profound impact they had. Reflective journaling is a venue where students can think critically, be creative, express personal views and critique their own performance.

On the other hand, a not unexpected disadvantage to evaluating reflective journaling is reluctance of students to self-critique fully and honestly if it may affect the grade they receive. Teachers can find it difficult to mark journals objectively and reviewing them can be time-consuming (Chan, 2009). Guidelines for implementing reflective journaling assignments include providing clear explanations of what 'critical reflection' means, what the approximate length of journal entries should be, how often they should be submitted, and the extent of privacy and confidentiality students can expect (Chan, 2009). Timely feedback on student journal entries strengthens the reflective process.

Creative Strategies

Critical Reflection – What It Is and What It Is Not

Differentiating between reflective journal entries demonstrating critical thinking and those that simply record activities and observations may not be easy for students. If reflective journaling is used in your program or you wish to invite students to journal, show students what critical reflection is. Provide examples of journal entries that demonstrate introspection, self-critique and experiences of feeling distressed or anxious. Emphasize the importance of reflecting honestly on what went well and what could or should be done differently next time. To illustrate what critical reflection is not, also provide examples of entries that are more superficial and don't really indicate shifts in thinking or a willingness to look at issues in new ways.

Case studies or case methods are also widely used during clinical components of programs for health professions. Case studies promote critical thinking, problem solving, self-direction, active learning and communication skills (Carnegie Mellon, n.d.; Gaberson, Oermann & Shellenbarger, 2015; Popil, 2011; Tomey, 2003).

Case studies are stories of real life situations with complexities, dilemmas and issues that are more abstract than concrete. Details in case studies are important and information presented must be specific. 'Correct' responses and professional actions should not immediately be apparent. This lack of clarity provides learners with opportunities to practice identifying the kinds of problems that are present, to suggest different treatment approaches, and most importantly, to consider new and different points of view (Carnegie Mellon, n.d.).

Clinical teachers can draw from their own experience to create case studies or can access fully developed and peer reviewed cases posted on health care resources websites. When judging the merit of a case study for use in a specific area, assess whether the client situation and setting is realistic and whether the information provided is detailed but brief. Discussion questions accompanying the cases should be open-ended, inviting critique and inspiring questions about the additional information learners need to seek out (Carnegie Mellon, n.d). Supplementing any case study activity with background information, such as anatomy and physiology reviews, lab test information or excerpts from required texts, will help students solve problems posed within the case in more informed ways.

Creative Strategies

Draft a Case Study

Reflect on your own experiences as you first began working in the area where you now teach. Does a particular case stand out? Why? As a new practitioner, what was difficult or perplexing about this case? How did you and other members of the health care team try to resolve dilemmas associated with the case? What did you try that worked? What did not work? What did you wish you had known then that you know now? How did you go about finding the additional information you needed?

Write out the key details as briefly as possible as a draft case study. Separately, write out discussion questions and supplemental theoretical information. Ask colleagues to review your draft case study, share it with different groups of students, and revise it as necessary. When your draft case study is consistently well-received, consider submitting it for publication on an open educational resource website such MERLOT (MERLOT Health Sciences, n.d.). By publically sharing your well-received case study, you will strengthen your own scholarship and provide other clinical teachers with a useful teaching tool.

Adult Education Theories and Models

Since Malcolm Knowles (1980) labelled andragogy as the "art and science of helping adults learn" (p.43), theorists in adult education continue to contribute important ideas about how teachers can best facilitate learning among adults. Many of these ideas or emerging theories are well suited to clinical learning environments, where practitioners in their workplaces are actively working with both clients and students.

From the Field

Find a Teaching Model That Works

Teaching models offer useful direction for practice. One model, Adaptive Supervision, illustrates how clinical instructors can adapt to the instructional, emotional and contextual needs of their students through mentoring. While the model may seem daunting at first, it can offer valuable help guiding students with their learning in the clinical arena.

Clinical instructors need to provide instructional and emotional support to all students. However the degree of instructional and emotional support provided by the teacher differs depending on each student's learning needs, abilities and context. The model guides clinical teachers as they assess and direct teaching interventions.

More information about this model is available from the following references:

Jennings, A. & Couture, B. (2011). Supervision in nursing education: A Canadian perspective. In E. Ralph, & K. Walker (Eds.), *Adapting mentorship across the professions: Fresh insights & perspectives* (pp. 329–344). Calgary: Temeron/Detselig/Brush.

Ralph. E. (1998). *Developing practitioners- A handbook of contextual supervision*. Stilwater: New Forums Press.

Anita Jennings PHD(c), Faculty, Collaborative BScN Nursing program, George Brown College, Toronto, ON.

Assumptions underlying andragogy as an educational approach (Knowles 1975, 1980, 1984) are that adult learners are independent and self-directed. They bring accumulated life experiences that are rich resources for learning. Adults' learning needs are closely related to their changing social roles. Adults are motivated by internal rather than external factors. They are problem centred and most interested in immediate application of knowledge. For younger learners and those with little existing knowledge of a topic, some teaching may need to be more teacher-directed than self-directed. However, most adult educational experiences are grounded in a climate of acceptance, respect and support, with learners expected to be actively involved in co-creating their learning. In the following paragraphs, we discuss three foundational elements of andragogy: self-direction, experiential learning and collaboration.

Self-Direction

Self-direction is a foundational element of andragogy. Individuals who are self-directed accept responsibility for their learning by selecting, managing and assessing many of the activities they need throughout their learning process (Brookfield, 1984; Guglielmino, 2014; International Society for Self-Directed Learning, n.d.; Knowles, 1975). Many practicum students in the health professions have had their previous learning experiences directed by teachers who told them what to do, what to study and what goals to achieve. When students have had limited opportunities to assume responsibility for their own learning, clinical instructors can help by clearly communicating that self-direction is expected and required. For example, instructors can ask "How do you direct your own learning and how can we best help in that effort?" (Douglass & Morris, 2014, p.13).

Creative Strategies

I Can Do That

Think about a time when you needed to implement a new clinical activity but instructions weren't available. What did you do? How did you select resources or information to guide you? What did you do with these resources to manage them or piece them together? How did you assess your process and determine that you could go ahead and safely implement the activity?

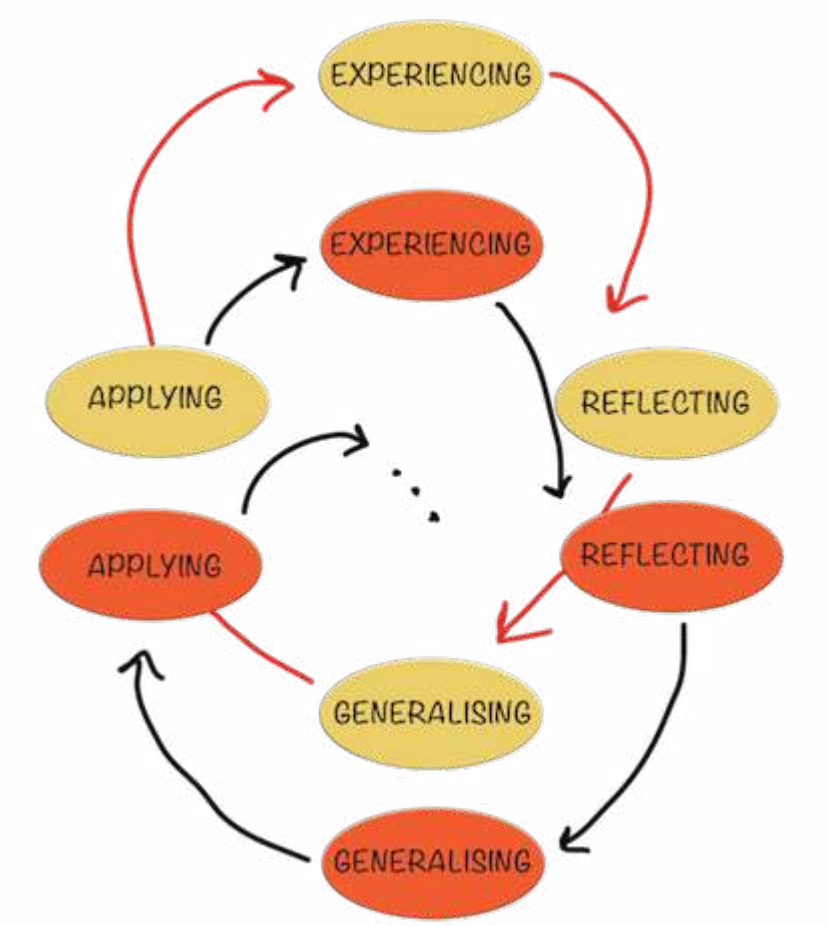
Self-direction involves selecting, managing and assessing what's needed to be able to say "I can do that." In a group discussion, explain your own process of self-direction to students. Using the questions above, invite students to share examples of how they went about learning a new task. Close the activity by emphasizing the importance of self-direction in clinical learning environments.

Experiential Learning

Experiential learning, also termed 'hands on' or 'learning by doing,' is a second foundational element of andragogy. Experiential learning theory suggests that when learners are directly immersed in activities and then reflect analytically on their experiences, the process can integrate cognitive, emotional and physical functions (Association for Experiential Education, n.d.; Dewey, 1938; Kolb, 1984). Each learner's experience is uniquely personal and will vary with context.

Teachers can support experiential learning by becoming involved in learners' ways of analyzing their experiences. Teachers can guide learners towards thinking beyond just the local context of their experiences (Moon, 2004). For example, Jacobson and Ruddy (2004) suggest posing questions such as: Did you notice…? Why did that happen? Does that happen in life? Why does that happen? How can you use that?

David Kolb (1984; Kolb & Fry, 1975) created an enduring model to explain experiential learning. He theorizes that learning is a spiralling process of four steps. First, learners carry out an action or have a concrete experience. Second, they think about or reflect on that action in relation to that specific situation. Third, they try to understand the abstract concepts involved and look for ways to generalize beyond the specific situation. Fourth, they apply the knowledge and test what they discovered in new situations.



Smith, M. K. (2001, 2010). 'David A. Kolb on experiential learning', the encyclopedia of informal education.
Available at http://infed.org/mobi/david-a-kolb-on-experiential-learning/

Creative Strategies

Start a Keeper File

Practitioners in different clinical areas do not all do things in the same way. When students are implementing clinical activities in one placement area, they may find it challenging to accurately generalize beyond that specific situation. To encourage students to think broadly about what they learn from what they are doing and how this knowledge might be applied to other situations, suggest that they develop a keeper file.

A keeper file is a collection of notes that students feel will be valuable in their future practice. Each note in the file includes a brief reflection on a clinical activity they implemented in their present practicum. It should also include relevant theoretical thinking. Most importantly though, it should include why students felt being able to do this activity was a keeper. What did they learn in this practicum that can be generalized and applied in other clinical experiences and in their future practice?

Collaboration

A third foundational element of andragogy is replacing the hierarchy between teachers and students with collaboration and shared responsibility (Brookfield, 1986; Brookfield & Preskill, 2005; Imel, 1991).

Traditional university programs presented information primarily through didactic methods such as lectures or assigned readings. Motivation was extrinsic, usually in the form of grades. Students often worked alone and may have felt they were in competition with their peers. However, as ideas from the field of adult education are integrated into higher education settings, shifts are occurring. Students are now more familiar with the notion that they are expected to be active participants in their learning. Motivation is becoming more intrinsic and most university students have experience working in small groups (Kurczek & Johnson, 2014).

Integrating collaboration among students and having them work together in clinical practice areas can be an effective instructional approach and one that is relatively easy to apply. In contrast, establishing a learning environment where the hierarchy between teachers and students is eliminated is less straightforward. Ultimately, teachers evaluate students. Still, teachers' relationships with their students in higher education programs can be collaborative.

In academic settings, the teaching role is changing from authoritative professor to learning facilitator. One example is King's (1993) seminal call for teachers in higher education to be more like a "guide on the side" than a "sage on the stage" (p. 30). Daloz (2012) urges higher education teachers to create mentoring relationships with students. Competitive thinking among students may be reduced by pass/fail grading systems rather than numeric or letter grades (Kohn, 2012; White, 2010). In clinical settings, teachers are investing more in their relationships with students and making efforts to facilitate discussions rather than to simply transmit knowledge (Beckman & Lee, 2009). Collaborative learning is not a matter of expert teachers transmitting knowledge to amateurs, it is teachers and students working together to pursue knowledge (Barkley, Cross & Major, 2005; Palmer, 2007).

Clinical teachers can collaborate and share responsibility for learning by inviting students to take on leadership roles within their clinical groups. In the following two *From the Field* strategies, instructors provide direction for activities that can help facilitate collaboration.

From the Field

Take a Turn in Team Leading

Encouraging students to *take a turn* in team leading is a valuable way to help them learn some of the skills expected of leaders in nursing and other health disciplines.

Team Lead (TL) Roles and Responsibilities

– Each week two students will assume the role of TL (one TL for four students).

– Each Monday (or first clinical shift) remind instructor who is assuming the TL role.

– Arrive 15 minutes early (0645) to the unit to make sure that the students' chosen patients are still acceptable and available (talk to the charge nurse). Initiate processes for alternate patients as needed.

– Maintain a list of all patients assigned to students in the group. Remind peers about documenting flow sheets, I & Os, and summaries. Make sure that these are completed in a timely manner. Review peer documentation and provide feedback to ensure professional standards are maintained.

– Assist peers with skills if time allows.

– *Most importantly, act as the liaison between the instructor and each and every student.

Taking a turn in team leading with a student group will help with entry-to-practice competencies that are geared to demonstrating leadership in coordinating health care by:

– assigning client care

– consenting to and supervising and evaluating the performance of health care aides and undergraduate nursing employees in performing restricted activities

– facilitating continuity of client care

Jacqueline Mann MN, Academic Coordinator, Centre for Nursing and Health Studies, Athabasca University, Athabasca, AB.

From the Field

Leading Rounds

Rounds, traditionally defined as "a series of professional calls on hospital patients made by doctors or nurses "(Merriam-Webster Medical Dictionary, n.d.), can be adapted to a student-led learning activity.

Permission for the instructor and clinical group to visit and gather at the bedside must be obtained from the patient and unit or agency managers.

In preparation for leading the clinical group in a professional call or round with their patient or client, each student presents the patient to the clinical group, noting diagnosis, treatment and plans for care.

Then, at the bedside, each student leads the round on this patient while the instructor and other members of the group observe the interaction and the environment. The round can include an introduction to the patient and a quick priority assessment such as the ABCIOPS (A: Airway, B: Breathing, C: Circulation, I: Intake, O: Output, P: Pain and Comfort S: Safety). As appropriate, the round may also include a chart review to highlight vital signs, procedures and equipment being used.

Ensure that private space is available for the instructor and the group to debrief and exchange feedback after the round.

Amelia Chauvette RN BScN MScN, Thompson Rivers University-Williams Lake Campus, BC.

Learning styles. Another strategy for clinical teachers to facilitate collaboration is by providing an opportunity for everyone in the group to complete an ***inventory of their preferred learning styles***. This is especially valuable at the beginning of a course. The process of teachers and students working together to discover and then share the ways they learn best can offer valuable reminders that everyone learns differently. The process can also remind teachers to intentionally implement a variety of different instructional approaches, not just those they are familiar with or prefer themselves. A quick Google search will yield an abundance of inventories for preferred learning styles. Many of these are unsuitable because they are lengthy, must be purchased or are restricted by copyright law. One inventory, the VAK/VARK questionnaire, is suitable and is readily available for public use on the VARK (n.d.) website.

The VAK (Fleming & Mills, 1992; VARK, n.d.) model suggests that people prefer one of three styles of learning: visual, auditory (aural) or kinaesthetic. Visual learners prefer movies, pictures, diagrams, displays and hand-outs. They appreciate the opportunity to observe someone else complete a task or demonstrate it before they do it themselves. They work well from written directions. They may use phrases such as "show me." Auditory or aural learners prefer listening to the spoken word or sounds. They value listening to instructions from experts. They work well from telephone or recorded directions. They may use phrases that include the words "tell me." Kinaesthetic learners prefer physical experiences such as touching, feeling, holding and actually doing tasks. They are most comfortable learning tasks by stepping right in and trying out what they are expected to do. They may use phrases such as "let me try." At different times and in different situations, people may prefer different ways of learning and combinations of learning styles.

An additional learning style, reading and writing, was later added to the VAK and the VAK became the VARK (Vark, n.d.). Reading/writing learners prefer text-based information and materials. They are drawn to

information presented in lists, manuals, textbooks, class notes and PowerPoint lectures. They may use phrases such as “I read that …”

Creative Strategies

What’s Your VARK?

As a way of minimizing the hierarchy between teachers and students, try completing the VARK as a collaborative group activity early in the course. The VARK (Visual, Aural, Reading/Writing, Kinesthetic) is an inventory of learning style preferences and is available for free at http://vark-learn.com/home/. Participants submit an online questionnaire and receive immediate feedback indicating the learning styles they prefer. The site does not collect personal information.

Once you and your and students have all completed the VARK, discuss the results. Some members of the group will prefer pictures and demonstrations (visual); some will prefer the spoken word and recorded instructions (aural); some will prefer textbooks and PowerPoint lectures (reading/writing); and some will prefer touching and hands-on actions (kinesthetic). Most people value all these different ways of learning but are particularly drawn to one or two. During the discussion of learning style preferences, ask for students’ help in ensuring that your preferences do not dominate and that the student group shares responsibility for including a variety of different styles throughout the course.

Conclusion

In this chapter, we invite teachers to consider the idea of travelling with students as they journey towards their destination of becoming health care professionals. Foundational knowledge from the discipline of education and the field of adult education can help clinical teachers facilitate learning intentionally. Boyer’s (1990) work articulating the scholarship inherent in teaching processes has encouraged educators to approach their work in new ways. Teachers explore the everyday aspects of their practice through research studies and then disseminate their findings in peer reviewed journals focused exclusively on education. Most health care disciplines now have journals where educators share research findings and best teaching practices.

Conceptual frameworks offer important guidance to teachers from a variety of disciplines. In health care, ideas from the invitational, constructivist and transformative frameworks are particularly useful. An invitational view highlights invitational and welcoming learning environments that promote a climate of trust, respect and optimism. A constructivist view emphasizes valuing what learners already know and builds instructional scaffolds to promote independence and extend existing knowledge. A transformative view stresses shifts in students’ assumptions and gears learning experiences towards triggering new insights and provoking critical reflection. Clinical learning activities that can provoke critical reflection include reflective journaling and case studies.

Students attending programs in post-secondary or higher education settings are considered adult learners. Theories and models from the field of adult education are based on the assumptions that adults bring life experiences to any learning event, that their learning needs are likely related to their changing social roles, and that they are motivated by internal rather than external factors. Adults learn best when addressing real life problems and they want to apply what they learn immediately. Foundational elements grounding most adult education theories are that adult learners value self-direction, experiential learning and collaboration. Self-direction involves the ability to select, manage and assess many of the activities needed for a learning experience. Experiential learning or ‘learning by doing’ means actually doing an activity, then reflecting analytically on the experience and imagining how the learning could apply beyond a particular setting. Collaboration involves sharing the responsibility for learning among groups of students and reducing hierarchical relationships between teachers and students.

In summary, in this chapter we cast a spotlight on the notion that teaching can and should be viewed as a

scholarly practice. The discipline of education offers clinical teachers a rich and abundant body of knowledge. Drawing from and contributing to this body of knowledge can be an exciting and fulfilling part of clinical teaching.

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CHAPTER TWO - WHERE DO I FIT IN? ARTICULATING A PERSONAL PHILOSOPHY

"He who has a why to live can bear almost any how." —Friedrich Nietzsche

Each teacher brings a unique philosophy and viewpoint to their interactions with students. Some of these views are more obvious than others. For example, some teachers might state that they choose teaching to help and support new members of their profession. Others may note that involvement with learners is a required and expected job requirement. Taking time to reflect and begin to articulate a personal philosophy of teaching can help teachers understand why they approach their practice in particular ways and how their individual views fit with 'big picture' educational issues. Understanding *why* a teaching approach or action might be advantageous before deciding *what* content to implement or *how* to deliver that content helps teachers think critically about their practice.

Any philosophy or expression of beliefs can evolve and grow over time. As teachers strengthen their theoretical knowledge and gain practical experience, their personal teaching philosophy will also change. Although it can seem daunting to try and put beliefs into words, initiating a working teaching philosophy statement and then adding to it throughout your career can support teachers in becoming more engaged, competent and scholarly (Chism, 1998; Goodyear & Allchin, 1998; Owens, Miller & Owens, 2014; Ratnapradipa & Adams, 2012; Schönwetter, Sokal, Friesen & Taylor, 2002).

For clinical teachers seeking to identify where they fit in and how best to articulate a personal philosophy of teaching, established philosophical perspectives from the field of adult education offer important direction. Liberal, progressive, behaviourist, humanist and radical perspectives are traditionally considered foundational. Each of these overarching perspectives brings different underlying assumptions about human nature, the purpose of education, the role of the educator, and the role of the learner. Perspectives specific to teaching, such as transmission, apprenticeship, developmental, nurturing and social reform perspectives, provide more explicit guidance for those in higher education. In this chapter we provide a primer on key adult educational philosophies and discuss the process of articulating a personal teaching philosophy statement.

A Primer on Key Adult Education Philosophies

Five Key Adult Education Philosophies

An adult education philosophy or perspective is the categorization of an individual's beliefs, values and attitudes towards education. In this section we present Elias & Merriam's (1995) seminal work identifying the five key adult education philosophies of liberal, progressive, behaviourist, humanist and radical perspectives.

A ***liberal*** perspective emphasizes the development of intellectual abilities. Liberal education is related to liberal arts, not to liberal political views. A liberal arts education provides general knowledge with an emphasis on reasoning and judgement, instead of professional, vocational or technical skills (Liberal Arts Education, n.d.). A liberal education promotes theoretical thinking and stresses philosophy, religion and the humanities over science.

Liberal teachers are experts who transmit knowledge, direct the learning process with authority, and emphasize organized knowledge. Teachers play a prominent role in this philosophy and have a variety of different intellectual interests. Teaching methods focus on lectures, readings, study groups and discussions. Socrates, Plato and Jean Piaget are considered liberal teachers.

A ***behaviourist*** perspective emphasizes skill acquisition. Behaviourist education conditions and shapes

individuals through clearly defined purposes and learning objectives. Heavy emphasis is placed on assessing and evaluating whether behaviours taught have been learned.

Behaviourist teachers manage learning environments in ways that promote learning of expected and desired behaviours. Although teachers reinforce or positively acknowledge students when they succeed, both teachers and students are accountable for learning success. Mastery learning and standards-based education are often framed from a behaviourist perspective. Teaching methods include programmed instruction, contract learning and computer-guided instruction. Ivan Pavlov, Burrhus Frederic Skinner and John Watson made significant contributions to this perspective.

A ***progressive*** perspective emphasizes an experiential, problem-solving approach to learning. Progressive education liberates learners and equips them to solve problems and apply practical knowledge. Students learn by doing, by inquiring, by being involved in the community and by responding to real-life problems.

Progressive thinking is grounded in five principles. First, education is viewed as a life-long process and not one restricted to formal classroom instruction. Second, learners have the potential to learn more than their immediate interests. Third, learners value diverse instructional methodologies. Fourth, teacher–learner relationships are interactive and reciprocal. Fifth, education prepares learners to change society.

Teaching methods include the scientific method, problem-based learning and cooperative learning. Proponents of this perspective include John Dewey, Francis Parker and Edward Lindeman.

A ***humanist*** perspective underscores personal growth and development. Humanistic education supports learners towards becoming fully functional and self-actualized. Humanists believe that individuals are autonomous and have unlimited potential that should be nurtured. They also believe that individuals have a responsibility to humanity.

Learners are viewed as highly motivated, self-directed and responsible for their own learning. Humanist teachers facilitate and partner with students rather than managing or directing their learning. “Humanist adult educators are concerned with the development of the whole person with a special emphasis upon the emotional and affective dimensions of the personality.” (Elias & Merriam, 1995, p.109).

Teaching methods include team teaching, group tasks, group discussion and individualized learning. Theories developed by Carl Rogers, Abraham Maslow and Malcolm Knowles ground this perspective.

A ***radical*** perspective highlights social, political and economic change through education. Rather than working within existing norms and structures, radical education often occurs outside mainstream adult and higher education programs. Radical educationalists value non-compulsory and informal learning activities.

Radical teachers coordinate, make suggestions and partner with learners. They do not direct the learning process. Teaching methods include exposure to the media and real life situations. Paulo Freire, Ivan Illich and John Holt are well-known radical thinkers.

Table 1. Philosophies of Adult Education

Adapted from Elias & Merriam (1995) and Zinn (1983, 1994, 1998)

	LIBERAL	BEHAVIORIST	PROGRESSIVE	HUMANIST	RADICAL
PURPOSE OF EDUCATION	Develop intellectual abilities.	Emphasize skill acquisition.	Equip learners with practical knowledge and problem-solving skills.	Enhance personal growth, development.	Promote fundamental social, political & economic changes in society.
VIEW OF LEARNER	Always a learner. Seeks knowledge rather than information.	Needs to practice new behaviour. Strong environmental influence on learning.	Learn by doing, experimenting and working with real-life problems.	Motivated, self-directed, responsible. Learners have unlimited potential.	Equal to the teacher within learning process.
ROLE OF TEACHER	Experts who transmit knowledge. Direct the learning process.	Manage, control and positively reinforce. Predict and direct learning outcomes.	Organize, guide and establish interactive reciprocal relationships with learners.	Facilitate, support and partner. Attentive to emotional and affective issues.	Coordinates and suggests but does not determine direction of learning.
METHODS USED	Lecture, readings, discussion groups.	Programmed instruction. Computer-assisted learning.	Problem-based learning, cooperative learning.	Team teaching, group tasks, individualized learning.	Group identifies problems to solve. Discussion groups.
KEY WORDS	Learning for its own sake. Classical, traditional.	Stimulus-response. Behaviour modification. Learning objectives and evaluation of those objectives.	Based on experience. Democratic principles. Problem-solving.	Self-actualization, cooperation, group work, self-direction.	Raising of awareness of social problems. Social action. Non-compulsory learning activities.
AUTHORS	Socrates, Plato, Piaget	Pavlov, Skinner, Watson	Dewey, Parker, Lindeman	Rogers, Maslow. Knowles	Friere, Illich, Holt
EXAMPLES	University or college lectures.	CPR certification and renewal.	Problem-based health care programs.	Clinical pre-and post conferences.	Literacy training.

Creative Strategies

My Favourite Philosophies

Review each of the boxes in Table 1, Philosophies of Adult Education. Put a checkmark beside any comments in the boxes that seem to resonate for you. Do your checkmarks fall into one or two

favourite philosophies? Do some philosophies seem to better fit you than others?

Philosophy of Adult Education Inventory (PAEI)

Building on the five key adult education philosophies of liberal, behaviourist, progressive, humanist and radical described above, Lorraine Zinn (1983; 1994; 1998) developed a classic questionnaire that teachers can use to help identify the perspective(s) to which they are most drawn. The Philosophy of Adult Education Inventory (PAEI) is available for free on the LabR Learning Resources webpage. To complete the questionnaire, respond to each inventory question by selecting from a scale ranging from *Strongly Disagree* to *Strongly Agree*. Once you have submitted your responses, an inventory of results will be emailed to you. Most teachers are drawn to more than just one philosophical perspective.

Creative Strategies

Try the 'Philosophy of Adult Education Inventory'

Visit http://www.labr.net/apps/paei/ and complete the Philosophy of Adult Education Inventory. Are the results you received what you expected? Do you agree with the results you received? Did the results help you determine which philosophy (or philosophies) seem a good fit for you?

Five Perspectives on Teaching Adults

General philosophies of education can be contrasted with the specific ideas teachers have about what they do and would like to do in their day-to-day practice. A teaching perspective is an inter-related set of beliefs and intentions that justifies and directs teachers' actions (Pratt, 1998). Teaching perspectives are more than teaching styles. They "determine our roles and idealized self-images as teachers as well as the basis for reflecting on practice." (Pratt, 1998, p.35). Pratt, Collins and Selinger's (2001) seminal work examining teachers' actions, intentions and beliefs describes five perspectives on teaching: transmission, apprenticeship, developmental, nurturing and social reform.

Transmission teachers strive for effective delivery of content. They are masters of subject matter. They set high standards for achievement and direct students to useful resources. They provide reviews, summaries and objective methods of assessing learning. They clarify misunderstandings, answer questions and correct errors.

Apprenticeship teachers model ways of being. They "reveal the inner workings of skilled performance and must now translate it into accessible language and an ordered set of tasks" (Pratt & Collins, n.d. p.2). They guide students from simple to more complex activities and gradually withdraw as learners assume more responsibility for their learning.

Developmental teachers cultivate ways of thinking. They believe teaching is planned and focused from the learner's point of view. They seek to understand how learners are thinking and reasoning and then try to support them toward more sophisticated ways of comprehending content. They provide meaningful examples and use questions to move learners from simple to more complex ways of thinking.

Nurturing teachers facilitate self-efficacy. They have confidence in their students. They believe their students succeed because of their own efforts and abilities, not the benevolence of a teacher. They teach "from the heart as well as the head" (Pratt & Collins, p.4).

Social Reform teachers seek a better society. They endeavour to make significant changes at the societal level. They are interested in the values and ideologies that are part of everyday practice.

Teaching Perspectives Inventory (TPI)

Another highly regarded inventory to help teachers articulate their own philosophy of teaching is the Teaching Perspectives Inventory (TPI) developed by University of British Columbia professor Daniel Pratt and associates (Pratt, 1998; Pratt & Collins, n.d.). The TPI is available for free on the Teaching Perspectives

Inventory website. Once you have submitted your responses, a profile of results will be emailed to you. This profile reflects your dominant, back-up and recessive perspectives. Further instructions for interpreting and understanding your profile are posted on the website.

Creative Strategies

Try the 'Teaching Perspectives Inventory'

Visit http://www.teachingperspectives.com/tpi/ and complete the Teaching Perspectives Inventory. Review your profile in relation to the instructions on the Reflecting on Results tab. Most teachers embrace aspects of all five perspectives. However, the TPI will identify dominant, back-up and recessive perspectives that are unique to you. Keep a record of your profile and complete the inventory again from time to time to observe any changes that may occur.

From the Field

What is My Philosophy of Teaching?

A teaching philosophy includes reflections on our beliefs about teaching and how we act on those beliefs in our everyday teaching practice. Although senior clinical instructors may have developed and established their personal philosophy, new teachers may not yet have had such opportunities.

During orientation, take some dedicated time to reflect on the question "What is my philosophy of teaching?" Begin your reflections by thinking about your hopes when you first applied for a teaching position. Write down your thoughts and be sure to revisit and revise your views at the beginning and end of each term you teach.

Beginning to put our beliefs into words is an important first step in the ongoing process of establishing a philosophy of teaching. Teaching is different from bedside nursing. Understanding our philosophy can help create balance during times when teaching tasks such as client assessment seem to override more complex teaching topics such as empathy. It can also help when new areas of expertise and responsibility seem overwhelming.

Kara Sealock RN BN MEd CNCC(C), Nursing Practice Instructor, University of Calgary Faculty of Nursing, Calgary, AB.

The Process of Articulating a Personal Teaching Philosophy Statement

What is a Teaching Philosophy Statement?

Articulating a personal philosophy of teaching is increasingly important among those who teach in health education (Ratnapradipa & Adams, 2012), pharmacy (Medina & Draugalis, 2013), physiology (Kearns & Sullivan, 2011), social work (Owens, Miller & Owens, 2014), recreational therapy (Stevens, Schneider & Johnson, 2012), nursing (Horsfall, Cleary & Hunt, 2012; Spurr, Bally & Ferguson, 2010) and other health disciplines. A teaching philosophy or teaching philosophy statement puts into words what we believe about the general purpose of teaching, how students learn, how instructors can best intervene throughout the process of learning, and how our beliefs will translate into action (Chism, 1998; Goodyear & Allchin, 1998; Grundman, 2006).

A seminal definition explains that ***a teaching philosophy statement is*** "a systematic and critical rationale that focuses on the important components defining effective teaching and learning in a particular discipline and/or institutional context" (Schönwetter, Sokal, Friesen & Taylor, 2002, p.84). Crafting a teaching philosophy statement is expected to be an ongoing reflective process that articulates where teachers are presently and their goals for the future (Beatty, Leigh & Dean, 2009). It should be revised and

revisited frequently (Chism, 1998). Even when not formally articulated, teachers' philosophies influence how they plan learning activities, interact with students, and even how they react to student misconduct (Coughlin, 2014).

The content of a teaching philosophy statement will be very different for each individual. According to Chism (1998), it should be written in the first person, not exceed two pages in length, avoid technical terms, incorporate metaphors, and "be reflective and personal" (p.1). Mentioning the names of educational scholars may be valuable, but a substantive literature review is not usually included (University of Toronto, n.d.). Teaching statements are meant to be viewed by others, so starting one with a brief self-introduction may be useful.

Some teachers may choose to start their reflections by reminiscing about their own experiences as a learner. Thinking about teachers who had positive or negative influences can provide valuable insight. Similarly, beginning the reflective process by musing on an inspirational quote or visual image may provide insight. Remembering back to why you first went into teaching may also be valuable. The decision to include these reflections is optional. A Google search using terms such as 'writing a teaching philosophy statement' or 'examples of teaching philosophy statement' will yield a plethora of examples of how other educators have crafted their statements. Similarly, asking colleagues about their teaching philosophy can provide inspiration.

Generally, four common areas of focus are addressed in today's teaching philosophy statements (Owens, Miller & Owens, 2014). These areas are

conceptualization of how learning occurs
conceptualization of an effective teaching and learning environment
expectations of the teacher–student relationship
student assessment and assessment of learning goals.

O'Neal, Meizlish & Kaplan (2007) propose a concrete and manageable way to approach these 'big picture' areas of focus. They suggest answering the following questions and then assembling the answers into a holistic and personalized essay.

Table 2. Getting Started on a Teaching Philosophy Statement

Adapted from O'Neal O'Neal, Meizlish & Kaplan (2007)

QUESTIONS ABOUT YOUR TEACHING PHILOSOPHY
Why do you teach?
What do you believe or value about teaching and student learning?
If you had to choose a metaphor for teaching and learning, what would it be?
How do your research and disciplinary context influence your teaching?
How do your identity or background and your students' identities or backgrounds affect teaching and learning in your classes?
How do you take into account differences in learning styles in your teaching?
What is your approach to evaluating and assessing students?

Creative Strategies

Getting Started on a Teaching Philosophy Statement

Jot down your answers to the questions posed in Table 2. Although you will likely re-write and polish your comments when assembling your responses into a document to be shared with others, your first responses may be the heart of your beliefs about teaching.

Finally, include a section on goals and how you are implementing and evaluating these goals. Comment on the kind of educator you hope to be in five or ten years. What specific actions are you taking to achieve your goals? Some teachers may include brief mention of teaching materials they have created or revised. However, a teaching philosophy statement is not a curriculum vitae, it is a developing illustration of your reflections and aspirations at a particular time.

The Centre for Teaching Support & Innovation at the University of Toronto (n.d.) identifies the following pitfalls to avoid when writing a teaching philosophy statement:

- **Too general** – limited personal expressions of beliefs, experiences and circumstances of the author.
- **Not reflective** – lists techniques and approaches rather than describing how these have contributed to the author's beliefs.
- Dwelling on **negatives.**
- **Too clichéd** – expressing a belief in a popular or contemporary approach to teaching without noting how that approach is integrated into your teaching.
- **Too few examples** – lacking examples of what you are doing and how you know whether it's effective or not.

Once you have started a working teaching philosophy statement, plan to continue adding to it regularly and systematically. If you are applying for teaching positions at universities, a teaching philosophy statement is often a required part of job and promotion applications. Lang (2010) encourages teachers to write a statement "that doesn't sound like everybody else" (p.2). He invites teachers to picture a student walking into their class and then imagine in what way the student will be different at the end of the course. Lang (2010) suggests "as soon as you describe your teaching objectives, tell a story about how your objectives played out … an enlightening moment … or even a moment of failure" (p.15). No two teaching philosophy

statements will be or should be alike. While they are expected to be readable and well organized, there are no right or wrong processes for creating these living working documents.

Creative Strategies

Share Your Teaching Philosophy Statement

Develop a two-page document from the notes and ideas you have gathered in reading about established philosophies of adult education and the process of articulating a teaching philosophy statement. Organize your points and be sure to balance your narrative with personal experience or anecdotes. Ask a respected colleague or mentor to look at your statement and offer feedback. Think about sharing your statement with students. If you have a professional website, consider posting your teaching philosophy statement on it.

Conclusion

In this chapter we presented a primer on liberal, progressive, behaviourist, humanist and radical philosophical perspectives from the field of adult education. These well-known and enduring philosophical perspectives offer useful foundational knowledge to teachers as they reflect on their own beliefs about human nature, the purpose of education, the role of the educator, and the role of the learner. Each of these perspectives paints a different picture of teachers. A liberal perspective views teachers as experts; a behaviourist perspectives views teachers as managers; a progressive perspective views teachers as partners; a humanistic perspective views teachers as supporters; and a radical perspective views teachers as coordinators. The Philosophy of Adult Education Inventory (PAEI) is a free questionnaire that teachers can complete for help understanding which philosophical perspectives they are most drawn to. The PAEI is available at http://www.labr.net/apps/paei/ .

We discussed five perspectives specific to teaching in higher education: transmission, apprenticeship, developmental, nurturing and social reform perspectives. Each of these casts a spotlight on specific aspects of teachers' roles in different ways. Transmission teachers are masters of subject matter; apprenticeship teachers model ways of being; developmental teachers cultivate ways of thinking; nurturing teachers facilitate self-efficacy; social reform teachers change society. The Teaching Perspectives Inventory (TPI) is another free questionnaire that teachers can complete to gain a deeper understanding of which perspectives resonate with them. The TPI is available at http://www.teachingperspectives.com/tpi/ .

The process of articulating a personal statement of teaching philosophy is seldom straightforward. We have provided guidance with suggestions such as writing in the first person, including metaphors, and reflecting on personally meaningful stories. Most teaching philosophy statements include your beliefs about how learning occurs, what an effective teaching and learning environment looks like, what you expect within your teacher–student relationships, and your views on assessment. Teaching philosophy statements are living working documents that should be revised frequently and shared with others. They can be required for job and promotion applications at universities.

In sum, understanding *why* teachers do what they do begins with reviewing established educational philosophies. This understanding provides a foundation for the ongoing process of creating a reflective and personal philosophy, one that is unique to you.

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CHAPTER THREE - THE CLINICAL LEARNING ENVIRONMENT

"Correction does much, but encouragement does more. Encouragement after censure is as the sun after a shower." —Johann Wolfgang von Goethe

Today's clinical learning environments can seem overwhelming. Learners, instructors and staff members all face extraordinary challenges in health care workplaces. Students can be recent high school graduates, adult learners supporting families, or newcomers to the country who are continuing to work on their language and literacy skills. Common concerns are high costs of tuition that result in unmanageable debt, and competition to achieve top marks. Many students travel significant distances to the clinical site and balance heavy study commitments.

Similarly, instructors are often employed only on a sessional or contract basis. They are also balancing work and family obligations that are separate from the clinical learning environment. As well, professional staff members at a clinical site, who are ultimately responsible for client safety and care, are frequently employed on a contract basis and may work at several different facilities. At times, professional staff members may view learners as an additional burden rather than an opportunity for professional development. Non-professional staff may find themselves assisting learners.

Creating a learning community among learners, teachers and staff cannot be left to chance. The complex social context of the current clinical learning environment makes intentional teaching approaches essential, approaches grounded in an understanding of how learning occurs for students. In this chapter we discuss the clinical learning environment, who the teachers are, and who the students are. We provide creative and easy-to-implement strategies that offer practical guidance to instructors for managing the everyday occurrences faced by clinical teachers in this unique 'classroom.'

Picture of the Clinical Learning Environment

Students in health care education programs at universities complete practicums in a clinical learning environment in addition to attending academic classes. Clinical practicums are considered essential to professional competence in most health-based professions. For example, clinical practicums are viewed as essential to the curriculum by programs in medicine (Ruesseler & Obertacke, 2011), nursing (Courtney-Pratt, FitzGerald, Ford, Marsden & Marlow, 2011), pharmacy (Krueger, 2013), physical therapy (Buccieri, Pivko & Olzenak, 2013; McCallum, Mosher, Jacobson, Gallivan & Giuffre, 2013), occupational therapy (Rodger, Fitzgerald, Davila, Millar & Allison, 2011), dietetics (Dietitians of Canada, n.d.), radiation therapy (Leaver, 2012), paramedic training (McCall, Wray & Lord, 2009) and dental hygiene (Paulis, 2011). Internationally, clinical practicum placements for students in these and other health care disciplines are in markedly short supply. Available placements may be in programs offering care only to seriously ill clients, may be inundated with learners from the health disciplines, and may be experiencing budget cuts and staff shortages (Brown et al, 2011; Roger, Webb, Devitt, Gilbert & Wrightson, 2008).

The real world learning environment where students in the health professions complete their clinical practicums is an "interactive network of forces" (Dunn & Burnett, 1995) rich in opportunities for learners to transfer theory to practice. Setting out sequences of learning activities in unpredictable clinical environments can be more difficult to plan and structure than in traditional classroom environments. Both planned and unplanned experiences must be taken into account.

Planned Experiences

Curriculum. Following direction from a curriculum is a widely used planned learning experience in the clinical learning environment of any professional health care program. At the curricular level, clinical practicums are usually arranged before students are granted admission to their program of study. A curriculum is the range of courses and experiences a learner must successfully complete in order to

graduate. Curricula are expected to include a philosophical approach, outcomes, design, courses and evaluation strategies. Clinical practicums can be structured as courses in the curriculum, either as part of a theoretical course or as a standalone course. Clinical practicums must be considered in relation to available health care facilities that are able to accommodate students.

Curricula in programs educating future practitioners in health fields are strongly affected by requirements of professional associations, regulatory agencies and approval boards. Curricula must address discipline-specific competencies. Throughout the curricular planning process, program planners from educational institutions must negotiate with administrators of service agencies to find suitable clinical practicum sites.

Since the education of health care professionals now occurs in universities rather than in the agencies providing service, negotiating, designing and evaluating clinical practicums in relation to the overarching curriculum is seldom a linear process. One consideration is ***program structure***, or the duration and division of learning to be undertaken by students. Here, modes of delivery matter: program structure could be framed around face to face settings in traditional classrooms, distance delivery or a blending of both. Partnerships between institutions and consortiums or collaborations among institutions also matter. When programs are structured to be delivered at a distance, learners may have to travel and find accommodation in a different geographical area in order to attend their practicums. In both face to face and distance programs, international practicum experiences may be available and even required.

Another consideration is the ***program model*** or organization of required courses, elective courses, laboratory experiences and clinical practicums within the curriculum. In clinical practicums, the program model guides the method of instruction that will be used. For example, the program model may require that students are taught in small groups by a clinical instructor, in one-to-one interaction with a preceptor, or a combination of these and other instructional methods.

In the health disciplines, coordinating instruction extends well beyond the actual institutions of learning and into clinical agencies. Scheduling, faculty and budgets must all be addressed. The instructors and preceptors who teach students during their clinical practicums may have no other association with the university. Similarly, university faculty assigned to teach in a particular clinical area may have no current association with a particular agency.

Program Design. Program design configures the program of studies, including the courses selected, practicum experiences, relationships among courses, and the policies that communicate this information. Designs may include building with blocks of required study, building by spiralling back and adding to previous content at different points, and establishing opportunities for specific tasks such as an essential psychomotor skill. Clinical teachers seldom have input into how programs are structured, the type of model used to organize content, or the design influencing how and when information is presented. However, all those involved in educating students must seek a basic understanding of the ‘big picture’ curriculum that students follow.

Traditionally, curricular organizing strategies often revolved around the medical model. The hospital areas of medicine, surgery, pediatrics, maternity and psychiatry framed the focus of learning for health practitioners. This model is strongly aligned with hospital-based apprenticeship orientations to learning and is now considered somewhat outdated in today’s complex and ever-changing health care system (Benner, Sutphen, Leonard & Day, 2010; Diekelmann, 2003; Tanner, 2006).

Today, programs are more often organized around a conceptual framework generated within the discipline or around the outcomes expected of graduates. For example, with outcomes such as promoting health, thinking critically and making decisions, curriculum planners would organize content related to each of these outcomes in different courses throughout the program. Evaluation methods would be determined in relation to these outcomes and would include a wide range of educational measurements. Examples might be multiple choice exams and scholarly papers in academic classes, and skill mastery or client communication in clinical practicums.

Levelling is the process of linking program content, introduced at different times and in different courses, to the evaluated outcomes expected of graduates. Levelling requires planned opportunities for students to build on their previous knowledge and work incrementally towards achieving more complex outcomes. However, if a limited number of clinical placements are available, scheduling appropriate clinical

opportunities for students at all levels is particularly challenging. Introductory level students may find themselves in practicums where they must care for acutely ill individuals. In many instances, practicum placements are more suited to advanced learners than to students in basic health care programs.

Further, instructors, staff and students can find it difficult to link the learning outcomes and evaluation methods that flow from a program's unique conceptual framework with the day-to-day work of a clinical agency. This may be another consequence of the limited associations between universities and clinical agencies. Although links between learning outcomes and day-to-day practice are made during planning by representatives of the universities and the agencies, the links may not always be clearly communicated to the staff actually working with learners.

Admission criteria are another important curricular element in appreciating the complexities of planned aspects of clinical learning environments. Some learners come to a health-related program of study with less than a high school education. Others come to post-secondary education with high school completion and are being introduced to a college, technical institute or university for the first time. Still other learners have at least one level of certification or an undergraduate or graduate degree. At any level, qualifications for admission may have been completed in another country and in another language. Learners may also have been awarded credit for prior learning or transfer programs.

Clinical agencies often host learners from a variety of different programs and admission requirements will be different for each program even within the same discipline. For example, while one registered nurse program may require high school completion, another may accept adult learners who have completed bridging programs. Inconsistent admission criteria among programs can leave agency staff members unsure of what learners are expected to know when they arrive, particularly when coupled with learning outcomes and evaluation methods that may not seem straightforward. In turn, staff can feel confused about how learners should be progressing and the specific task-based competencies they should be achieving.

Creative Strategies

Big Picture Thinking

As a new clinical teacher, find out as much as possible about the overarching curriculum that directs your learners' program of study. What is the philosophical approach guiding the program? Go beyond considering expected student outcomes for the specific course you are teaching and think deeply about the outcomes expected of students after they graduate. Visualize your present course in relation to the design of the program.

In the big picture, ask yourself how the course you are teaching builds on previous courses. What specific skills or ways of thinking must students master to progress to the next level? Will supplemental activities be needed if opportunities to learn these foundational skills are not available? What are the methods being used to evaluate students in different courses? Are the evaluation methods in the course you are teaching familiar to students?

You can also consider the impact of admission criteria on the dynamics of your student group. For example, what life event factors might be distracting students from learning in the clinical environment? Could students away from home for the first time feel heightened anxiety? Could an adult learner reverting to a student role feel hampered in self-confidence? While none of these questions are likely to have immediate or easy answers, sorting through the planned aspects of a program and their implications establishes a foundation for managing the less predictable and unexpected aspects.

Curricular structure, model, design, outcomes, evaluation methods and admission requirements of a program are planned with great care. They offer 'big picture' direction and open doors for learning in the clinical environment. Even so, unpredictable events are sure to emerge once clinical practicums are underway. In the following section, we discuss the heart of any clinical learning environment for many students, instructors and staff, the unplanned aspects of clinical learning.

Unplanned Experiences

The clinical learning environment is equivalent to a classroom for students during their practicums (Chan, 2004), yet few clinical agencies resemble traditional classrooms. In their clinical classrooms, learners hope to integrate into agency routines and feel a sense of *belongingness* (Levett-Jones, Lathlean, Higgins & McMillan, 2008). Learners want to feel welcome and accepted by staff and they want staff to help teach them how to practice confidently and competently (Courtney-Pratt, FitzGerald, Ford, Marsden & Marlow, 2011; Henderson, Cooke, Creedy & Walker, 2012). Students expect and require feedback on their performance and they must have opportunities for non-evaluated student–teacher discussion time (Melrose & Shapiro, 1999) and critical reflection (Duffy, 2009; Forneris & Peden-McAlpine, 2009; Mohide & Matthew-Maich, 2007). Learners need time to progress from one level of proficiency to another (Benner, 2001). Just as learners in classroom environments need support to develop competence in their chosen professions, learners in clinical practicums need a supportive clinical learning environment.

While supportive clinical classrooms are hoped for, clinical teachers must also be well prepared for unplanned experiences that raise barriers to learning. Research suggests that clinical learning environments may not be as supportive as learners would like. For example, Brown et al.'s (2011) work with undergraduate students from ten different health disciplines reveals significant differences between learners' descriptions of their ideal learning environment and what they experience during their actual clinical practicums. Although participants in Brown et al.'s study express satisfaction with their learning experiences, they describe a mismatch between what they hoped for and what actually occurred. Similarly, recently graduated nurses indicate significant differences between the kinds of practicums they deem good preparation for practice and those they actually attended (Hickey, 2010).

Investigations into experiences of physical therapy students were unable to conclusively define a *quality* learning environment, in part because of the diverse instructional practices by different community agencies overseeing students' practicums (McCallum et al., 2013). Over the last decade and in several different countries, student nurses rated their clinical experiences highly for their sense of achieving tasks but much lower for accommodating individual needs and views (Henderson, Cooke, Creedy & Walker, 2012). Although university students are encouraged to question existing practice and the status quo, students find that staff in their clinical placements are seldom open to innovation or challenges to routine practices (Henderson, Cooke, Creedy & Walker, 2012).

Staff shortages, and other issues with which clinical agencies struggle, can leave students feeling that they are not receiving the direction they need and that they are a burden to staff (Robinson, Andrews-Hall & Fassett, 2007). Students may feel alienation rather than the sense of *belongingness* they hope for (Levett-Jones, Higgins & McMillan, 2009). Students may express fear and discomfort in their relationships with staff (Cederbaum & Klusaritz, 2009, p. 423). Clinical learners have felt rejected, ignored, devalued and invisible (Curtis, Bowen & Reid, 2007). These findings suggest that in some instances health care students are not receiving the support they need.

By acknowledging that both unplanned and planned aspects of learning will occur in all clinical learning environments, educators can plan fitting responses. Clinical agencies will always have a professional duty to prioritize safe patient care over providing learners with clinical classrooms that align with their curriculum and individual needs. As a consequence, and in spite of careful planning by university and agency program representatives, students may perceive their learning environment as unsupportive.

However, international leaders in the health disciplines are calling on clinical agency staff to view clinical teaching as part of their own professional development. They ask clinical agency staff to aid the next generation of professionals by striving to provide quality clinical learning environments where students do feel supported (Courtney-Pratt, FitzGerald, Ford, Marsden & Marlow, 2011; Koontz, Mallory, Burns & Chapman, 2010). Programs are testing new models of instruction (Franklin, 2010). Individual clinical teachers are striving to implement innovative teaching approaches that can create mutually beneficial connections between learners and staff during clinical practicums. Recognizing when unplanned aspects of clinical learning environments distract from student learning is an important first step in triggering change. Evaluation surveys are one way to cast a spotlight on troublesome areas.

Creative Strategies

Giving Back

Knowing that students want to feel a sense of belonging in clinical agency staff groups, you can find ways for students to contribute. Encourage students to reach out to staff members with offers of help, no matter what tasks are involved. To establish a more reciprocal climate of knowledge exchange, reverse the one-way flow of information from staff to student. Share students' academic work with staff. For example, you can arrange student input into existing in-service presentations or initiate new presentations. Whenever possible, record any presentations and make them available online so those unable to attend can also benefit. Invite students to share any relevant assignments from any of their courses that staff might value. Request space on agency bulletin boards (physical or electronic) and post these assignments. Help students change the topics of posted assignments frequently and keep the information being shared as concise as possible.

Clinical Learning Environment Inventory. Surveys to measure the quality of clinical learning environments are available. For example, the Clinical Learning Environment Inventory (CLEI) was developed in Australia by Chan (2001, 2002, 2003) to measure student nurses' perceptions of psychosocial elements in clinical practicums. The CLEI consists of an *Actual* form that assesses the actual learning environment and a *Preferred* form that assesses what the student would ideally like in a learning environment. The CLEI is a self-report instrument with 42 items classified into six scales: personalization, student involvement, task orientation, innovation, satisfaction and individualization. Students respond using a four-point Likert scale with the response options *Strongly Agree*, *Agree*, *Disagree* and *Strongly Disagree*. Inventory factors of the instrument have been modified to include student centredness (Newton, Jolly, Ockerby & Cross, 2010).

The CLEI has also been abbreviated to a 19-item scale measuring students' satisfaction with their actual learning environment in two aspects of their clinical experience—clinical facilitator support of learning and the clinical learning environment. The Clinical Learning Environment Inventory-19 (CLEI-19; Salamonson, Bourgeois, Everett, Weaver, Peters & Jackson, 2011) is shown in Table 1. The CLEI-19 can be used in formal evaluation processes implemented by university program evaluators. It can also be used more informally by agency staff and clinical teachers interested in strengthening their own clinical classroom environments.

Table 1. Abbreviated Clinical Learning Environment Inventory (CLEI-19)

Reproduced with permission (Salamonson, Bourgeois, Everett, Weaver, Peters & Jackson, 2011)
Clinical facilitator support of learning component: Items 1, 2R, 4, 6, 8R, 9, 10, 12R, 14R, 16, 17R, 18R.
Satisfaction with clinical placement: Items 3,5R, 7, 11R, 13R, 15, 19.
Items are scored 5, 4, 2 or 1 respectively for responses SA, A, D, and SD. Items marked with R are scored in the reverse manner. Omitted or invalidly answered items are scored 3.

Instructions: *We would like to know what your last clinical placement was ACTUALLY like. Indicate your opinion about each statement by selecting your response*

No	Item	Strongly agree	Agree	Disagree	Strongly disagree
1	The clinical facilitator was considerate of my feelings.	SA	A	D	SD
2	The clinical facilitator talked to, rather than listened to me.	SA	A	D	SD
3	I enjoyed going to my clinical placement	SA	A	D	SD
4	The clinical facilitator talked individually with me.	SA	A	D	SD
5	I was dissatisfied with my clinical experiences on the ward/facility.	SA	A	D	SD
6	The clinical facilitator went out of his/her way to help me.	SA	A	D	SD
7	After the shift, I had a sense of satisfaction.	SA	A	D	SD
8	The clinical facilitator often got sidetracked instead of sticking to the point.	SA	A	D	SD
9	The clinical facilitator thought up innovative activities for students.	SA	A	D	SD
10	The clinical facilitator helped me if I was having trouble with the work.	SA	A	D	SD
11	This clinical placement was a waste of time.	SA	A	D	SD
12	The clinical facilitator seldom got around to the ward/facility to talk to me.	SA	A	D	SD
13	This clinical placement was boring.	SA	A	D	SD
14	The clinical facilitator was not interested in the issues that I raised.	SA	A	D	SD
15	I enjoyed coming to this ward/facility.	SA	A	D	SD
16	The clinical facilitator often thought of interesting activities.	SA	A	D	SD
17	The clinical facilitator was unfriendly and inconsiderate towards me.	SA	A	D	SD
18	The clinical facilitator dominated debriefing sessions.	SA	A	D	SD
19	This clinical placement was interesting.	SA	A	D	SD

Creative Strategies

Try a Survey

Use a survey instrument such as the Abbreviated Clinical Learning Environment Inventory (CLEI-19) to measure the quality of your clinical learning environment. The questions can be answered by the traditional anonymous individual method or used as prompts for group discussion. When appropriate, share the results with university and agency program planners. Survey responses can shed light on patterns of occurrences that may not otherwise be known to people organizing clinical practicums.

Incidental Learning. Adult educators Marsick & Watkins (1990, 2001) name learning that can occur as an accidental by-product of doing something else as *incidental learning*. Incidental or unintentional learning differs from formal learning, where learners register with educational institutions to complete a program of study. Incidental learning also differs from informal learning where learners intentionally seek out further information by, for example, joining a study group.

Although incidental learning is unplanned, learners are aware after the experience that learning has occurred. Incidental learning occurs frequently while a person is completing a seemingly unrelated task, particularly in the workplace. It is situated, contextual and social. It can happen when watching or interacting with others, from making mistakes, or from being forced to accept or adapt to situations (Kerka, 2000). Clinical practicums, both those that students find supportive and those they do not find supportive, offer unprecedented opportunities for incidental learning. Tapping into these opportunities can turn potentially negative experiences into positive ones.

Creative Strategies

Celebrate Incidental Learning

Expect that unintentional or incidental learning will occur. Plan times and places for students to articulate and celebrate their incidental learning. Such learning may have occurred for them accidently and as they joined an agency staff member in an unrelated task.

Nurture New Relationships

Opportunities to achieve required learning outcomes in a clinical course may seem elusive. Possibilities emerge for thinking outside the box when clinical teachers nurture relationships with agency staff members, both in their own and other health care disciplines. You can ask whether a student might shadow a practitioner from another discipline and then lead peers in a discussion on how elements of critical thinking are both the same and different across professions. When appropriate, consider pairing a student with a para-professional or non-professional staff member to strengthen specific psychomotor skills or an understanding of the contributions of others to care.

In sum, the clinical learning environment is one of the most important classrooms for pre-service students. This environment offers a range of planned and unplanned opportunities for learners to practice and achieve the competencies they need. Clinical placements are in short supply for most disciplines and may not always be as supportive as learners hope for. Clinical teachers can find foundational guidance for their own courses in curricular structure, model, design, outcomes, evaluation methods, admission requirements and tactics for levelling student learning.

Both unplanned and planned aspects of learning must be expected. University training programs for health professionals are separate from most clinical agencies, so clinical staff responsible for guiding learners may not be fully aware of students' programs. Instruments such as the Abbreviated Clinical Learning Environment Inventory (CLEI -19) can serve as a measure of how students perceive their clinical practicums. Ensuring that incidental or accidental learning is acknowledged and celebrated can begin to turn potentially negative clinical experiences into times of valuable learning.

Who Are the Teachers?

Teaching in the health care professions is a dynamic process. Practitioners can share their clinical expertise with novices beginning their career or with more expert colleagues advancing their knowledge. One of the strongest motivators for becoming a clinical instructor is a desire to influence student success and shape the next generation of health professionals in your discipline, ultimately influencing the quality of care provided by future practitioners (Penn, Wilson & Rosseter, 2008). Clinical teachers are influential role models who continuously demonstrate professional skills, knowledge and attitudes (Davies, 1993; Hayajneh, 2011; Janssen, Macleod & Walker, 2008; Okoronkwo, Onyia-Pat, Agbo, Okpala & Ndu, 2013; Perry, 2009).

Becoming a Clinical Teacher

The Influence of Employment Category. Employment categories exert an important influence on the clinical teaching role. Some clinical teachers are full- or part-time employees of universities or agencies hosting clinical practicums. Workload for these teachers is negotiated with their employers and they are given release time for preparation and attendance in their assigned clinical areas. Other clinical teachers may be employed only on a contract basis.

Over the past decade, contract faculty have become the new majority at universities (Charfauros & Tierney, 1999; Gappa, 2008; Meixner, Kruck & Madden, 2010). Contracts can offer positions such as limited-term full-time faculty (Rajagopal, 2004), part-time faculty, sessional instructors, term instructors (Puplampu, 2004), and adjunct faculty (Meixner, Kruck & Madden, 2010). These faculty "are paid per course taught and are seldom offered benefits such as health insurance or access to retirement plans" (Meixner, Kruck & Madden, 2010, p. 141). Clinical teachers may be employed in different ways and at several different institutions.

Although contract employment offers employees flexibility and independence, workers who are employed on a contract basis may feel less secure in their jobs, and their sense of well-being may be negatively affected (Bernhard-Oettel, Isaksson & Bellaagh, 2008). Contract employees can feel marginalized and disadvantaged (Guest, 2004).

In university health care programs, PhD qualifications are usually required for permanent academic positions, leaving many highly skilled practitioners under-qualified (Jackson, Peters, Andrew, Salamonson & Halcomb, 2011). Often, clinical teachers are continuing their own education through graduate studies at the masters or doctoral level at the same time that they are instructing in clinical practicums. However, contract work may not accommodate the time that clinical teachers need to complete assignments for their own studies or to attend to family matters. Given the high demand for placements at clinical agencies, the times that students are scheduled to attend practicums cannot be altered and substitute instruction is seldom available.

Uncertainty about whether their employment contract will be continued can leave clinical teachers who are employed only on time-limited contracts hesitant to risk implementing new ideas. Student evaluations of teachers can reflect issues that are beyond teacher control, and yet these evaluations influence contract renewals. Student feedback is the main form of assessment for effectiveness of clinical teachers (Center for Research on Teaching and Learning, 2014; Fong & McCauley, 1993; Kelly, 2007). For some practitioners, contract employment with a university may seem less predictable than a clinical agency position.

Creative Strategies

What Happens When I'm Ill?

When a clinical teacher is ill, what steps are in place to arrange for a substitute teacher? When substitute teachers are unavailable, what additional steps are in place to notify the clinical agency and all members of the student group that the clinical experience will be cancelled?

If no formal steps are outlined at the curricular level, establish a plan with your group of students.

For example, draft a phone fan-out list where each student is responsible for notifying the student whose name is next on the list. Each student must continue contacting their designated peer until the last student reports to the first that the fan-out is complete. Keeping this list up to date will save students the inconvenience of arriving at their clinical placement only to find that they are unable to work because their clinical teacher is ill. For some students, privacy issues may be a concern and opt-out options must always be available.

From the Field

Self-Orientation to the Clinical Setting

In most instances, becoming a clinical teacher involves self-orientation to the practicum placement area. Instructors who are new to the particular clinical setting where they will be teaching or who have not practiced there recently often choose to 'buddy' or partner with an experienced staff member. Teresa Evans shares the following suggestions:

> Call and make an appointment for your buddy shifts (it is often good to do two days in a row). Make an appointment to meet with the unit manager during that time. It is good to know that everyone is starting on the same page, and clear communication from the beginning is essential. Some things to discuss with the unit manager include:
>
> - when you start teaching, how long you are there, and what days of the week you will be there (roughly). The Placement Coordinator will send out a letter containing all relevant information to the facility in advance of your clinical starting date.
> - a course outline and what you hope the students get out of this clinical experience.
> - briefly, the assignments the students are doing during that course.
> - the unit manager's expectations of you and the students. What worked well in the past? What would they like to change?
> - your expectations of the staff.
>
> Go through policies and procedures that will be used during the course of the clinical experience (e.g., administering blood and blood products)
> Ask the staff what typical skills, conditions and interventions they see or perform on a regular basis. Research or ask any questions about these. You may want to find some research about these for your clinical binder.
> Understand how the normal routine of the day goes.
>
> - When are meals?
> - When are vital signs typically done if they are routine?
> - How often is bedding changed? Where does soiled linen go?
> - How is the assist tub used?
> - Where is report taken? When does report occur?
> - What are the physio/occupational therapy schedules?
>
> Look through the charts and have someone run through typical charting for the day and expectations re times of completion.
> Do an admission or have someone walk you through the admission process.
> What needs to be done for discharge? Transfers?
> Orient yourself to where all the supplies are. Go through all storage areas so you know where everything is.
> How are medications given and by whom? Do students usually have a separate binder for their own clients? Who has keys to the medication carts and how many are there?
> The primary role for you during your buddy shift is to get to know the staff and have them get to know you. Also discuss what you and the students will be doing on the floor.
>
> - What year are the students in?
> - What skills do they have? It can be helpful to bring a year skills list and post it for the staff.

- What role do you need the staff to fulfill?
- What will the students do on the floor (e.g., charting, vital signs, bed baths)?
- What expectations do you have of the staff?

Do a.m. care, assessments, vital signs, and then ask to chart and have a staff member look over the information to make sure it is complete.

Talk with the unit clerk. They are crucial gatekeepers of information. Ask them what typically happens when orders are received, where to put charts, how orders are processed, what to do if we need supplies ordered, etc. Unit Clerks sometimes have concerns with students, especially when students take charts and don't understand that orders need to be processed, so discuss this with them in advance.

Look through patient charts to get a feel for how they are set up and what types of clients the unit generally receives.

Are there clipboards that vital signs are recorded on? Where are they recorded in the charts?

Ask staff how they know if samples (urinalysis, sputums, etc.) need to be collected?

Ask about what certifications are needed to work on the floor. It might be prudent to talk to the appropriate individual and see if you can set up a date/time to complete these certifications if necessary, such as IV starts & Central Lines.

Are there teaching tools the unit uses for patients? Review these so you are familiar enough to alert students to them when they need them.

If you are not familiar with any of the equipment, arrange an in-service (IV Pumps, Vital Machines, Glucometers, Lifts, etc.)

Hint:

Instructors set an example for students to follow…ensure you are as prepared as possible. Nursing is a team profession; encourage your students to embrace interdisciplinary team work where appropriate.

Teresa Evans MN, Nursing Instructor, Grande Prairie Regional College, Grande Prairie, AB.

Transitioning from Practitioner to Educator. As with any career change, the role transition from practitioner to educator can cause feelings of anxiety, isolation and uncertainty (Anderson, 2008; Dempsey, 2007; Little & Milliken, 2007; McDermid, Peters, Daly & Jackson, 2013; Penn, Wilson & Rosseter, 2008). Although specific tasks required of clinical teachers can be learned, the language, culture and practices of a university can be unfamiliar and difficult to grasp (Penn, Wilson & Rosseter, 2008). For many practitioners, discussing specific expectations for the faculty role both formally with program leaders and informally with other teachers can help.

Competencies expected of clinical teachers (Robinson, 2009) include

- being both a skilled practitioner and a skilled educator
- excellent interpersonal and professional communication skills
- implementing a range of assessment and evaluation methods
- leadership and administrative skills
- maintaining professional development and scholarship activities

Juggling the roles of practitioner and educator, and feeling as though they must be near perfect in both, can leave clinical teachers feeling threatened (Griscti, Jacono & Jacono, 2005). The professional development activities required to gain and retain competence in each role are different. Practitioners must continue to provide client care in new and different ways, and attend in-service workshops on new skills, products and equipment being used in their clinical agencies. Educators must integrate knowledge from the discipline of education, understand student-centred approaches to learning, and initiate a scholarly program of research and publication. Common to both roles are keeping up to date with research findings, attending conferences or other educational events, and undertaking self-directed study projects.

Moving beyond simply maintaining competence and towards excellence in the two roles takes time. At

different points in their careers, clinical teachers may commit more time and effort to one role than the other. New clinical teachers who are experienced practitioners may initially focus on understanding the educator competency of assessing and evaluating learners.

Once novice clinical teachers gain expertise and confidence as university faculty members, they may collaborate with experienced researchers and authors to complete scholarly activities. At other times, clinical teachers may find it helpful to return to practice and strengthen their clinical expertise. Mentorship from more experienced faculty can help clinical teachers establish and work towards achieving realistic career goals (Billings & Kowalski, 2008).

Creative Strategies

Plan to Advance Your Career

employment is contract-based and renewable on a per course basis or a continuing part-time or full-time position, evaluate how this fits with your plans for advancement. Question the specific impact of student feedback on your performance or your employment status.
How can you arrange opportunities for professional development? What processes are in place for discussing your career trajectory with your employer(s)? Are any leave or release time packages available for completing further graduate study?
Investigate options that might be available for continuing your own professional education. Consider both online and face to face programs. During any graduate study course, be sure to plan several hours of study time most days, particularly when assignments are due.

From the Field

Role-Play a Clinical Post Conference

Practice can help ease the transition from practitioner to educator. Facilitating engaging post conferences is a skill many new clinical teachers in the health professions must learn. Yet how does one learn to facilitate a clinical post conference? Is it possible to learn this from trial and error? Does it help to discuss the role during a clinical instructor orientation session? Might it be helpful to be mentored and watch an experienced teacher facilitate a post conference? These are questions that Mary Ann Fegan at the University of Toronto thought about over and over again as she prepared new and returning instructors to facilitate clinical post conferences. Many identified this aspect of their role as challenging and they wondered how to carry out this role better. Some asked, “How do I ensure that every student has a voice and feels comfortable participating in the discussion?”

Mary Ann and her colleague used the following active learning strategy to help prepare instructors for their facilitator role during clinical post conferences. We find it to be an effective and fun way to address some of the challenges of the role and a great way to facilitate active discussion among both new and returning instructors. This activity uses role play to simulate a post conference.

Participants (the instructors) are divided into small groups of six or seven people. One person volunteers to be the facilitator and everyone else is handed a nursing student *role card*. These role cards provide a brief description of the student and participants are invited to take on that role as they think it would play out in a real situation. Among the student roles are the following: a quiet student who only speaks when spoken to; a bored or unengaged student; a very chatty student who has an answer or comment for almost everything; an English Language Learner student who provides very short answers to questions; a dominant student who had a great clinical day and wants to talk about everything they did; and an anxious student who arrives a few minutes late and is very distraught about something that happened earlier that day. The simulation typically runs for about 15 to 20 minutes.

This activity is followed by small group debriefing (about 20 minutes) led by a faculty member who observed the small group discussion and took some notes. As with any simulation activity, the

debrief opens with a general question to help the group decompress, something like “How did that feel?” The discussions are rich and provide some interesting and insightful perspectives and observations from participants. Many questions are raised and many are answered among both new and returning instructors. This opportunity for peer-to-peer feedback helps to reveal some of the challenges in facilitating a group and offers some specific strategies to enhance this role. After the small group debrief we come together for a larger group discussion and share some of the things that went well, some of the things that might have been done differently (in the spirit of wondering), and finally one key learning about the facilitator role.

Mary Ann Fegan MN, Senior Lecturer, Clinical Education Coordinator, Lawrence S. Bloomberg Faculty of Nursing, University of Toronto, Toronto, ON.

Effective Clinical Teachers

The identity of clinical teachers as individuals, and as practitioners and educators, has a significant impact on their effectiveness in the clinical learning environment. The ways in which an instructor understands the process of learning will ultimately guide how they go about teaching (Hand, 2006). Rather than simply teaching as they were taught, clinical teachers are now actively seeking ways to strengthen the scholarship of educating learners in clinical learning environments (Buccieri, Pivko & Olzenak, 2013; Schmutz, Gardner-Lubbe & Archer, 2013; Sabog, Caranto & David, 2015).

If we view the clinical environment through the eyes of students, it is not unexpected that learners perceive effective teachers as individuals who demonstrate caring behaviours (Jahangiri, McAndrew, Muzaffar & Mucciolo, 2013), who are calm during stressful experiences (Smith, Swain & Penprase, 2011), who exercise patience (Cook, 2005; Parsh, 2010), and who demonstrate enthusiasm for their profession and for teaching (Gaberson & Oermann, 2010). Teachers who are approachable can help students feel less anxious and more confident (Chitsabesan, Corbett, Walker, Spencer & Barton, 2006; Sieh & Bell, 1994). Students appreciate teachers who make themselves available outside of clinical time, who take the time to answer questions without seeming annoyed, and who provide students with time to debrief and discuss issues (Berg & Lindseth, 2004). Students find it helpful when teachers are not controlling or overly cautious and allow students to learn the practice skills they need through actually doing them (Masunaga & Hitchcock, 2011). In short, students value respectful collegial relationships with their teachers (Kelly, 2007).

Effective and student-centred clinical teachers empower their students. Empowering teaching behaviours include enhancing students’ confidence, involving them in making decisions and setting goals, making learning meaningful, and helping them to become more autonomous professionals in their discipline (Babenko-Mould, Iwasiw, Andrusyszyn, Spence Laschinger & Weston, 2012). Empowering teachers care about, commit to and create with their students towards a shared vision that anything is possible (Chally, 1992).

Empowering strategies that foster a shared vision between clinical teachers and students include inviting students to identify the kinds of approaches that best support their learning style (Melrose, 2004). Effective teachers support students in identifying their personal strengths and working with teachers to build on these strengths (Cederbaum & Klusaritz, 2009). Empowering educators affirm student efforts, share positive messages and create supportive dynamics within the learning group (Chally, 1992). Note that empowering strategies also re-direct students when their work is unsatisfactory or off track.

In higher education settings, educators must assess and evaluate students’ work, thus affording educators power over whether students can continue in a course or program. The inherent tension in holding power over students while seeking to empower or share power is not easily resolved. Ultimately, clinical teachers must determine students’ grades, whether students are capable of practicing safely in their discipline, and whether students can progress in their chosen field.

Creative Strategies

Remember a Favourite Teacher

Consider your own learning experiences and reflect on teachers you have known. Does a favourite teacher come to mind? Recall the characteristics of this teacher as an individual who stands out in your memory, both in positive and negative ways. How does this individual, and other teachers you have known, influence your teaching? Who are the role model teachers you would like to emulate? Think about writing down these reflections. With the positive memories, would it be fitting to email or send a letter to the special teacher who came to mind?

Do a Reflection Inventory

Imagine doing a reflection inventory of your own teaching. How might students describe you as a teacher? Would their descriptions include words such as calm, patient, enthusiastic and approachable? Would they view you as available and willing to take time to answer questions or debrief with them? Would they describe you as the professional they aspire to be?

Find Education-Focused Journals and Conferences

Which elements of your teaching practice are 'teaching as you were taught'? In contrast, which elements of your teaching practice implement an idea gleaned from a journal article or a conference presentation grounded in the discipline of education? Find an education-focused journal in your discipline and make a point of reading articles regularly. Attend professional conferences focused on teaching and learning.

Anything is Possible

Consider the concept of empowering learners. Working from the premise that anything is possible, invite students to articulate what they hope to achieve during their learning and how they are going about achieving it. Find ways to build on students' own ways of learning.

Balance Affirmations and Corrections

Tune in to the number of affirmations you express in your discussions with students. Are messages of correction, re-direction and even failure balanced with messages of support and positive regard?

From the Field

Instructor Sharing to Address Challenges

Once you identify learning needs of students in clinical settings, you may have difficulty knowing the best strategy to support students' learning and provide the safest care to clients. To address student and clinical instructor learning needs around clinical issues, instructors at Lakehead University conduct a general orientation at the beginning of each clinical session.

Clinical instructors from all year levels are asked to attend. The instructors range from those who have many years of experience in the clinical area to those who are just starting. We begin the session by asking the experienced instructors to describe how they orient students to the clinical area. This usually stimulates questions from the new instructors.

We then move into asking the instructors to give examples of challenges they have faced in the clinical area. This again stimulates questions about formal documentation and how the clinical instructor can seek guidance from the faculty and from other instructors.

Feedback from the clinical instructors has been very positive. They get a chance to hear what the challenges are in each year level, get to know who else is teaching in the program, and are able to contribute to the conversation with their own experiences. The instructors have developed a greater sense of connection. We would like to make this an even more interactive experience by having the clinical instructors role-play a situation in a clinical setting and then have feedback from the entire group.

Cathy Schoales MN, Faculty of Nursing, Lakehead University, Thunder Bay, ON.

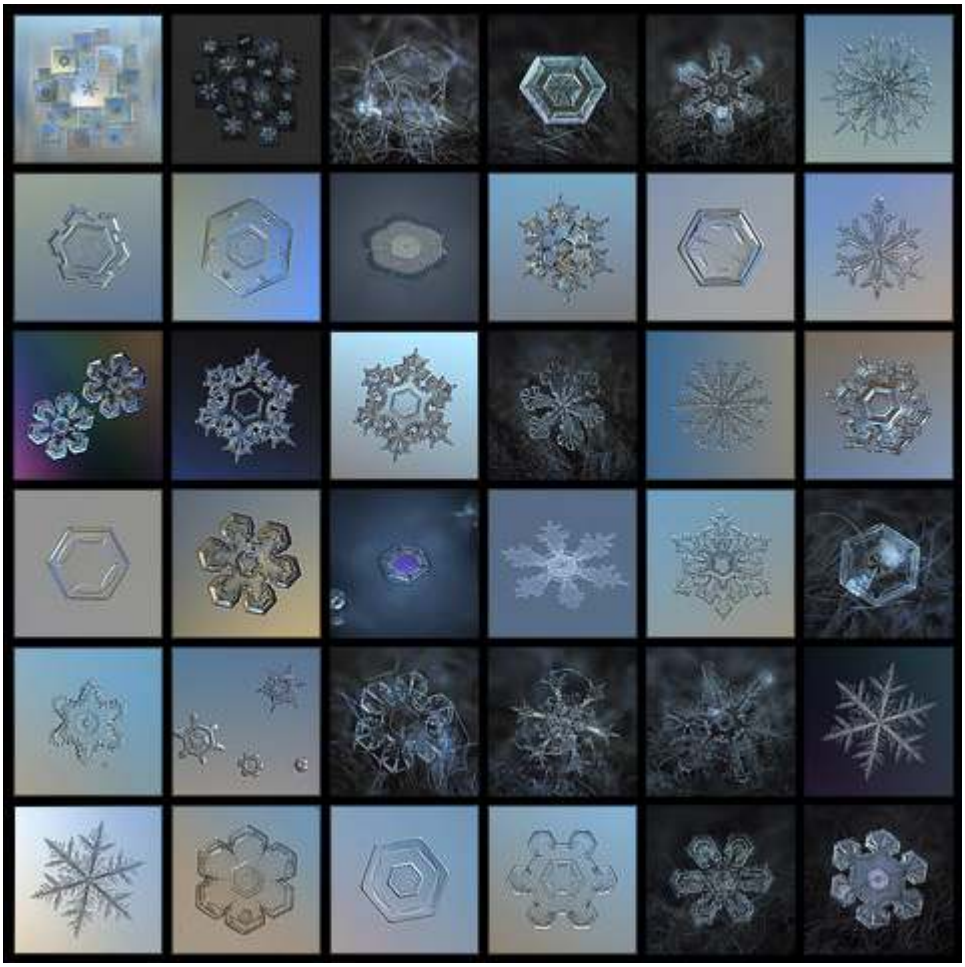
In sum, clinical teachers are role models who serve their profession by nurturing and supporting the next generation of practitioners. Clinical teachers affiliated with university programs can be employed in different ways. They may be part-time or full-time continuing faculty or they may be employed on time-limited contracts for each course taught. Clinical teachers may work for several different learning institutions and clinical agencies.

Given that finding substitutes to cover clinical teaching commitments is difficult, instructors should establish contingency plans such as student phone fan-out lists for when they are ill.

In most instances, full-time faculty are qualified at the PhD level. Often clinical teachers are undertaking graduate study at the same time as they instruct in clinical practicums. Planning time to complete your own study assignments while teaching is essential.

The process of transitioning from practitioner to educator can seem overwhelming. Expectations for university faculty members may not always be clear. Seeking out mentors and collaborating with experienced faculty involved in research and publication activities can help new clinical teachers develop their own program of scholarship. As both educators and practitioners, clinical teachers must gain and maintain competence in both areas. At different times in their career, clinical teachers may focus more on one set of these competencies.

In addition to demonstrating competence and expertise in their discipline, effective clinical teachers project a calm, patient, approachable and enthusiastic attitude during their interactions with students. Effective clinical teachers go beyond what is required of them and find ways to empower and inspire students with the idea that anything is possible. Whether students are progressing well, need re-directing or are failing, effective clinical teachers work from a student-centred approach based on student strengths to affirm and support students to success.



How Snowflakes are Different by Alexey Kljatov
https://farm4.staticflickr.com/3904/15306475256_f30a6b9322_o.jpg

Like snowflakes, no two students are alike. Learners coming to clinical areas of health care may be young adults beginning their higher education at a local college or university, adult learners just launching their university learning, or may have already completed undergraduate or graduate degrees. Students may be living at home with family or far away in a new location. Some may have been awarded advanced credit. Other students may have been educated in different countries and may have cultural orientations that are unfamiliar to teachers, peers or agency staff. In addition to their studies, many university students are employed either part-time or full-time. Many students have extensive family responsibilities.

Despite this range of individual student diversity, teachers can expect that students in the health care professions will find the clinical learning environment stressful, at least initially. While all learners will experience and project the emotions they are feeling in unique ways, research suggests that commonalities exist. Students are likely to fear that they will harm clients, they desire to help people, they need to integrate theory and clinical practice, and they desire to master psychomotor skills (O'Connor, 2006). Mastering psychomotor skills can seem to dominate students' views of what they feel is most important during clinical practicums. After graduating, however, learners report that having time and opportunities to practice their communication, time management and organizational skills is actually more important (Hartigan-Rogers, Cobbett, Amirault & Muise-Davis, 2007).

The high cost of tuition is a concern for most university students. Coupled with living costs that can include travel and additional accommodation at out-of-town clinical practicum sites, students face significant debt. Given the sacrifices that students in health care fields make to earn credentials in their chosen profession, understandably they usually expect to be awarded top marks and feel devastated when their efforts are

graded as poor or failing.

Creative Strategies

Value Students' Sacrifices

What sacrifices have students in your group made to attend their educational program? What sacrifices have they made to attend the clinical placement? How can this information help you understand who your students are?

Arrange Practice Time

Knowing that most students feel anxious at the beginning of their clinical placement, have students work closely with agency staff until their confidence increases. Arrange practice time to help students achieve competency with psychomotor skills whenever possible. Some agencies have resources such as simulation equipment where learners can practice skills (discussed in more detail in chapter 5). The clinical educator in the agency often has access to resources for orienting new staff.

From the Field

Centring to Become Fully Present

Upon arrival in the clinical area, gather the group together in a quiet place (even the clean utility room). With gentle intonation, read or adapt the following script:

Close your eyes or soften your gaze and breathe in and out. With each breath, breathe in strength, hope and possibility. With each breath out, let go of fear, preoccupation and the burdens of your life. As you breathe more deeply, notice the breath softening the belly, opening the heart, making way for your gifts to come to the surface. Notice your feet on the floor, rooted—you are supported. At any point today you can return to the breath, softening the belly, opening the heart.

Mary Ann Morris RN MSN, Selkirk College, Castlegar, BC.

Intergenerational Diversity

Students, teachers, clinical agency staff and clients come from different backgrounds and have different perspectives and ways of interacting. These diverse perspectives become apparent in clinical practicums as students are required to communicate with individuals with whom they have little in common. One way of understanding these diverse perspectives is to consider learners and the health care team members they must interact with in relation to the generational groups they were born into.

Although the term *diversity* is often used in relation to race or ethnicity, diversification can occur when multiple generations work or study together (Fry, 2011; Johnson & Romanello, 2005; Weston, 2006). Each generation grows up with different life experiences and these experiences influence how members of a generational cohort view the world, how they communicate, and how they approach teaching and learning (Billings, 2004; Notarianni, Curry-Lourenco, Barham & Palmer, 2009).

A generation is a group of people or cohort who progress through time together, holding or sharing a common place in history. Each group shares social and political events that usually span 15 to 20 years. As a result, they view the world differently than generations born before and after. However, we must not make assumptions that all individuals of a particular age will demonstrate characteristics associated with their cohort. In some instances, though, linking an individual's way of being in the world with characteristics expected from their generational group can be useful. Viewing learners and those they interact with through a generational lens can promote awareness of today's students, their expectations, and how teachers can respond to their needs (Earle & Myrick, 2009).

Currently, four active generations are interacting in schools, workplaces, homes, families and communities (Gibson, 2009; Weston, 2006). These four generations are known as the *Traditionalist*s or *Veterans* or *Silent Generation*, born between 1900 and 1945; *Baby Boomers* or *Sandwich Generation*, born between 1946 and 1964; *Generation X* or *Nexers*, born between 1965 and 1980; and *Millennials* or *Generation Y* or *Net Generation*, born between 1981 and 2002. A fifth generation, *Generation Z*, learners born after 1995, is now entering universities.

Traditionalists. Students are most likely to meet *Traditionalists* as clients during clinical practicums. Having lived through World Wars and the Great Depression, those born during this period commonly experienced hardship. As a result they worked hard, were loyal and believed the sacrifices they made would be rewarded (Tilka Miller, 2007). The world of this generation was very different than today. News came from newspapers and radios; shopping was done locally. Members of this generation were willing to conform to their parents' beliefs, rather than rebel, and they have been able to adapt to changes in the world (Johnson & Romanello, 2005). Their early work environments had clearly defined hierarchies, with plainly outlined rules, roles, policies and procedures that employees were required to implement (Weston, 2006).

In health care environments, uniforms offered immediate explanations to this generation of who the health care providers were and what could be expected from them. In today's fast-paced and technology-rich health care environments, *Traditionalists* may be unsure of students' roles and may find their explanations difficult to understand.

Baby Boomers, now in their 50s, 60s and 70s, are presently the largest cohort working in health care (Fry, 2011). Students will meet members of this generational group primarily as the clinical leaders and practitioners in their practicums. Many *Boomers* grew up in a healthy, flourishing economy where hospitals and schools thrived. Positive social influences on this generation encouraged baby boomers to think as individuals from a young age, to express themselves creatively, and to speak out when not in agreement with others.

Many women in this generation were socialized into the primarily female professions of nursing or teaching, as these educational opportunities were widely available (Hill, 2004). Women of the *Boomer* generation were the first to work outside the home. This resulted in appreciably different home lives for the next generations.

In response to growing up in an era of prosperity, *Boomers* were willing to work long hours to pursue their goals, often in a relentless manner that may have negatively affected their personal lives (Stewart & Torges, 2006). *Boomers* are now often sandwiched between caring for their aging parents and their adult children. They are also investing considerable time, effort and money into health maintenance and retirement (Johnson & Romanello, 2005). Given their leadership roles and experience in health care, *Baby Boomers* may be seen as intimidating by students.

Generation Xers, now in their 30s and 40s, are a much smaller group and have been referred to as a bridge between the generations born before and after the introduction of the Internet (Wortsman & Crupi, 2009). They grew up with computers, video games and microwaves, and are comfortable and skilled using new technologies. They expect instant access to information.

Members of this cohort were raised by two working parents or by single mothers and thus became known as the 'latch key' generation. They learned to manage on their own, became resourceful, and increasingly relied on friends (Walker, Martin, White & Elliot, 2006; Weston, 2006). *Generation Xers* have been described as having little regard for corporate life, challenging authority and expecting to have their opinions considered (Earle & Myrick, 2009; Walker, Martin, White & Elliot, 2006; Weston, 2006).

In health care environments, *Generation Xers* entered the workforce during the turbulent 1990s period of downsizing and restructuring. Many were unable to find full-time or continuing employment (Fry, 2011). As a result, they do not view employment as security (Hill, 2004). Opportunities for promotion may seem eclipsed by the *Baby Boomers* who remain in the workforce. Students will encounter *Generation Xers* among their peers, teachers and clinical agency staff. Until relationships are forged, students may find that *Generation Xers* seem impatient and somewhat unwilling to offer in-depth explanations.

Millennials, who are in their teens through to early 30s, were raised by *Boomers* who were actively involved in their learning. They have high levels of self-confidence and share a close relationship with their parents and members of their parents' generation (Hill, 2004). *Millennials* are the second largest generational cohort in the general population (Buruss & Popkess, 2012; Wortsman & Crupi, 2009). They are fully comfortable with technology and with living in a diverse world. *Millennials* are considered the most culturally diverse generation of all time (Earle & Myrick, 2009; Walker, Martin, White & Elliot, 2006).

This group of learners has a strong capacity to multitask, but their multitasking has the potential to erode their capacity to sustain focus and attention (Sherman, 2009). Their education has equipped *Millennials* with abilities to work well collaboratively and on teams, extending respect to each member of a group (Wortsman & Crupi, 2009). This cohort is accustomed to and requires immediate feedback (Bednarz, Schim & Doorenbos, 2010) and positive reinforcement (McCurry & Martins, 2010).

Millennials will be present in student, teaching and staff groups. Students may find that individuals from this group are fun-loving, friendly and approachable, particularly if students are *Millennials* themselves. Some members of this generational cohort may have had limited exposure to failure or even to negative feedback.

Generation Zers are people born after 1995, who comprise one-quarter of the North American population (Kingston, 2014). They lived through the terrorist bombings of 9/11 and the 2008 recession. Known as screenagers or digital natives, members of this cohort have grown up with the internet, social media and smartphones, and are considered the most connected generation in history (McCrindle & Wolfinger, 2014; Sparks & Honey, n.d.). Raised in inclusive classrooms, *Generation Zers* are collaborative and over half will be university educated (Sparks & Honey, n.d.). They work quickly, can have short attention spans, communicate with symbols, and may not be precise or put effort into their writing (Sparks & Honey, n.d.).

Clinical teachers can use information about generational diversity as an introduction to who their students are and to create individualized instruction that will help them succeed. The wisdom gleaned from *Traditionalists*; the drive modeled by *Baby Boomers*; the resourcefulness demonstrated by *Generation Xers*; the team spirit so ready to be tapped in the *Millennials;* and the connectivity of *Generation Zers* can all be integrated into innovative teaching strategies.

Creative Strategies

What's Your Generational Cohort?

Question whether your students would benefit from viewing the individuals they will be interacting with professionally through the lens of generational diversity. During the process of coming to know your students, apply the strengths and barriers for their generational cohort to enhance their learning.

Emotional Diversity

Another way to understand the diverse perspectives students bring to their clinical learning environment is to examine the diverse range of emotional issues many face. Just as members of the general population deal with learning disabilities, substance abuse, poor mental health or many other emotionally taxing problems, so do students enrolled in health care programs. Increased numbers of students with learning disabilities (Child & Langford, 2011; McPheat, 2014: Meloy & Gambescia, 2014; Ridley, 2011; Sanderson-Mann, Wharrad & McCandless, 2012), substance abuse problems (Monroe & Kenaga, 2010; Murphy-Parker, 2013), and poor mental health (Arieli, 2013; Megivern, Pellerito & Mowbray, 2003; Storrie, Ahern & Tuckett, 2012) are successfully completing their programs. Although help and accommodation for these students is more readily available, the stigma associated with their issues makes students reluctant to share the challenges they are working through.

Clinical teachers are not, and should not be, learning disability specialists or addiction and mental health counsellors. They must, however, know what program resources are available to students. All clinical teachers, whether they are full-time continuing faculty or teaching only one clinical course, should visit

their university counselling centre and become fully informed about services offered.

Learning disabilities. Most accommodations for learning disabilities are geared to academic class activities. For example, students with dyslexia benefit from supplemental study skills modules (Wray, Aspland, Taghzouit & Pace, 2013). If these kinds of modules are available, clinical teachers should familiarize themselves with the content and highlight clinical applicability during clinical conference discussions. This would normalize the use of such resources. Non-dyslexic students might also find the supplemental activities a useful way to transfer theory to practice.

Research is beginning to reveal more about the nature of the difficulties experienced by learning disabled students in clinical placements. For example, dyslexic nursing students have more trouble writing patient notes and using care plans than non-dyslexic students (Morris & Turnbull, 2006). Dyslexic students struggle with clinical documentation, drug calculations and patient handovers (Sanderson-Mann, Wharrad & McCandless, 2012). Supports established in the academic setting may not be communicated to people instructing and precepting students in the clinical setting (Howlin, Halligan & O'Toole, 2014.) Learning disabled students state that they would benefit from time spent with a clinical placement mentor who understands their specific learning issues (Child & Langford, 2011). Early referral and testing for students experiencing difficulties associated with dyslexia should be encouraged so that students can receive the support they need as soon as possible (Ridley, 2011).

Focusing on abilities offers important balance in any discussion of disabilities. Individuals with learning disabilities have been characterized as focused, resilient, empathetic, compassionate and intuitive, and they are known to have excellent interpersonal and problem-solving skills (Wray, Aspland, Taghzouit & Pace, 2013). These attributes are highly valued in health care practitioners. Many clinicians with learning disabilities have found suitable strategies to overcome their learning difficulties and are thriving in their field.

Substance abuse. The incidence of substance abuse among health care professionals and students is both under-researched and under-reported, but 10% to 15% of health care professionals are estimated to be afflicted with alcohol or drug addiction (Monroe & Kenaga, 2010). In most jurisdictions, reporting is mandatory when any professional or student is impaired. When clinical teachers encounter an impaired student, the student must be sent off the clinical area immediately and the incident reported to the teacher's supervisor. With this action, safety must be considered in areas such finding alternative transportation if the student drove to the clinical site. Instructor and student should contract to discuss the incident when the student is no longer impaired.

Neither students nor practitioners should ever practice when impaired. Unfortunately, individuals with substance abuse issues may not believe they have a problem and may be reluctant to seek help. When clinical teachers identify substance abuse or the potential for substance abuse in their students and initiate referrals to university counselling services, they provide a critical lifeline. Throughout the world, programs are becoming available that offer confidential, non-punitive assistance for health care professionals and students suffering from addictions (Monroe & Kenaga, 2010). Ignoring issues related to substance abuse is not an option.

Poor mental health. Students with emotional problems are present across health care disciplines and in clinical placements. Learners with mental health issues can demonstrate inappropriate behaviours including anger, neediness and inability to complete tasks (Storrie, Ahern & Tuckett, 2012). They may display poor motivation, negativity, overconfidence or an inability to work as a member of the health care team. They may not accept responsibility for their actions and may not change their behaviour in response to feedback.

In response, clinical teachers can feel anxious, distressed, intimidated or unsure about what to do (Storrie, Ahern & Tuckett, 2012). When students present with a psychiatric or mental health crisis, they must be accompanied to an emergency treatment facility. In non-emergency situations, the best course of action is less clear. University counselling services are not immediately available to students when they are in practice areas. Other members of the student group, as well as agency clients and staff, will be affected by any inappropriate student behaviour.

Storrie, Ahern & Tuckett (2012, p. 101) suggest the following four strategies that clinical teachers can

consider when responding to students with poor mental health.

Communicate with colleagues in advance about high risk students who might have special needs in a clinical placement.
Maintain a consistent approach by following university procedures. If a student has a complaint, they are to first address it at a local level with clinical teachers. If the complaint is not resolved, students must formalise the complaint via a letter to a university supervisor.
Keep a clear audit trail by documenting any encounter with the student and regularly briefing your immediate supervisor.
Determine if the problem can be managed by rearranging the design of the student's study plan. A revised plan will consider the student's needs and strengths, but still maintain academic expectations.

Creative Strategies

Know Policies for Dealing with Emotionally Diverse Students

In your self-orientation to your clinical teaching practice, find out precisely what actions are required of you when you encounter students with learning disabilities, substance abuse or poor mental health. Obtain copies of relevant policies.

Meet Counselling and Learning Services Staff

Walk into the counselling and learning services offices of the academic institution to experience how students might feel when seeking help. Make a point of meeting the resource staff members who are available to students. Providing students with the names of resource staff when referring them can make the process more familiar and comfortable.

Make a Wellness Plan

Invite all students in your clinical teaching group to sketch out a personal wellness plan. Encourage them to include physical and mental health issues and strategies for coping. Provide an option for students to share their wellness plan with you or an agency staff member with whom they will be highly involved. Students troubled by emotional problems can find it easier to disclose problems in writing, as part of a group activity, than in one-to-one dialogue with a teacher who will be evaluating them.

From the Field

Keep a Pride Journal

Throughout the course of a clinical day, have students note when they feel good about something they've done. Encourage them to experience the feelings and then jot down the experience. In post conference have students share those experiences and discuss how they felt proud of what they did.

Mary Ellen has examined the detrimental effect that negative emotions like shame can have on students' ability to learn in clinical nursing education (Bond, 2009). Keeping a pride journal introduces an opportunity for students to articulate and celebrate positive emotions and those times when they felt proud.

Mary Ellen Bond RN MSN, College of the Rockies, Cranbrook, BC.

Developing Independence

Health care students may be generationally or emotionally diverse, but they share the common goal of needing to develop professional independence during their clinical practicums. Through a stepwise process of gradually decreasing direction and guidance from teachers and agency staff, learners must work towards practicing independently. University-educated professionals in health care fields are required to think and act on their own, with limited or no direction from professional colleagues. Crisis is an everyday occurrence. Once learners graduate, they will be expected to implement client care independently.

The processes and strategies that learners use to develop independence as practitioners are inherently difficult to understand. Seminal literature from the field of adult education indicates that a key element in developing independence in any educational activity is for students to take responsibility for their learning above and beyond responding to instructions (Boud, 1988; Knowles, 1975). Becoming independent requires students to choose suitable learning activities, reflect on their effectiveness, and initiate any needed changes (Holec, 1981; Little, 1991).

In chaotic clinical learning environments, where maintaining client safety is critically important, students can feel unsure about how they could or should go beyond what they have been instructed to do. An inherent tension lies between providing safe client care and initiating new or perhaps unfamiliar activities in clinical practicums. Ameliorating that tension is different from trying out new ideas in academic classroom settings. Students may not feel that they have developed the independence they need to function in a complex professional role until nearly a year after they graduate (Melrose & Wishart, 2013).

Creative Strategies

Where Do You Hope to Practice?

Ask each student to name the clinical area in which they hope to practice after graduation. Throughout the clinical placement, link any learning experiences to the specific competencies they will need in that area. With the goal of developing student independence, intentionally decrease support over the term of the practicum. Students cannot be expected to practice independently in all areas of the clinical placement. Clinical teachers can help increase students' confidence, however, by focusing on skills directly relevant to their intended practice area.

In sum, students in the health care professions are a diverse group. Some will be new to university and others will be experienced adult learners. Despite differences in their backgrounds, they can all be expected to be highly invested in their education and will have made sacrifices to complete clinical practicums. Most will feel anxious initially, particularly in their desire to provide safe care and to pass course requirements.

Student groups will include learners from different generations. Clinical teachers may find it helpful to come to know their students as members of a generational cohort. Students will meet *Traditionalists* or older adults as clients and *Baby Boomers* or middle-aged adults as clinical leaders and practitioners. They will meet *Generation Xers* in their 30s and 40s and *Millenials* in their 20s in peer, instructor and agency staff groups. They will meet *Generation Z*ers in their late teens and early 20s in peer groups. *Traditionalists* are known for their wisdom and experience; *Baby Boomers* for their leadership and drive; *Gneeration Xers* for their resourcefulness and willingness to challenge; *Millenials* for their confidence and team spirit; and *Generation Zers* for their ability to work collaboratively.

Student groups will also include learners with emotionally diverse needs related to learning disabilities, substance abuse or poor mental health. To accommodate these learners and ensure public safety, clinical teachers must have a clear understanding of any program resources and policies relevant to special needs students. Key strategies for supporting troubled students include 1) documenting both student behaviours and teacher responses implemented to help, and 2) consistently keeping supervisors informed.

Students and teachers in clinical learning environments share the common goal of developing independent practitioners. Becoming independent is work in progress for students, teachers and clinicians alike. By

grounding instruction in the premise that students will soon be on their own and responsible for their practice, the importance of supporting students towards initiating and managing their own learning becomes clear.

Conclusion

Clinical environments are 'classrooms' rich with planned, unplanned and incidental opportunities for creative teaching and meaningful learning. Some clinical placements may not be as supportive as learners would like and clinical agency staff may not be fully aware of students' programs. Still, more practitioners are embracing the view that supporting students is a valuable part of their own professional development.

Clinical teachers, whether they are continuing faculty members or employed only on a course-by-course basis, are impactful role models who can make a critical difference in their students' lives. Students view effective clinical teachers as individuals who are calm, patient, enthusiastic and approachable. Excellent teachers seek to empower and inspire their students. Clinical teachers are often continuing their own graduate studies and juggling career plans that require expertise in both their practice discipline and in the field of education.

The students that clinical teachers meet in clinical practicums come from diverse generational backgrounds. Some will need unique instructional and institutional support as they deal with issues such as learning disabilities, substance abuse or poor mental health. Clinical teachers must familiarize themselves with polices related to special needs students and with any counselling resources that are available to students. The stakes are high in university health care programs and students have all made sacrifices. They want to succeed, to earn top marks and to practice independently once they graduate.

In this chapter we examined the clinical learning environment and asked who the teachers and students are in this environment. We hope the creative strategies mentioned will provide practical ideas to help clinical teachers with the complex problems they face daily. Perhaps the process of questioning and seeking to understand how our learners see the clinical environment is as important as the answers themselves.

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CHAPTER FOUR - PROFESSIONAL SOCIALIZATION OF HEALTH CARE PROFESSIONALS

"Thought flows in terms of stories—stories about events, stories about people, and stories about intentions and achievements. The best teachers are the best storytellers. We learn in the form of stories." —Frank Smith

Today's clinical learning environments can seem overwhelming. Students in the health care professions face a complex and stressful transition from learners to competent practitioners. How do students make the transition from struggling beginners to fully functioning professionals? The transition occurs in part during pre-service education. However, educating health care professionals is more than teaching them to successfully deliver a series of skills. Students also need to be guided in developing professional values and identity through socialization.

Socialization for health professionals can have two aspects. ***Organizational socialization*** is fitting into the structure of the organization, maintaining relationships with colleagues, learning the organizational culture, and learning the formal and informal rules of the practice environment. ***Professional socialization*** is internalization of a set of values and the culture of the profession (Zarshenas et el., 2014). Further, professional socialization is the process by which students develop a sense of self as members of a profession, internalize the values of their profession, and exhibit these values through their behaviour (Gaberson, Oermann & Shellenbarger, 2014; Weidman, Twale & Stein, 2001). The focus of this chapter is professional socialization of learners in health care professions. We present a variety of creative strategies that clinical teachers can incorporate into group or conference activities with students.

Professional socialization involves guiding learners to make personal commitments to their chosen profession. This commitment leads to actions and attitudes that are described by Black (2013) as "thinking like a nurse" or other health professional (p. 118). A professional identity evolves from effective professional socialization (MacLellan, Lordly & Gingras, 2011; Mooney, 2007) and professional socialization is a foundation of effective practice (Perry, 2009a).

Here we assume that professional socialization is a desirable outcome. While many authors discuss socialization exclusively as a positive goal for educators, others focus on the potentially negative effects of socialization such as group-think and undermining of diversity. Benner, Sutphen, Leonard & Day (2010) choose to use the term *formation* (p. 86) to represent the positive effects of workplace learning and consider socialization as something that can exert positive or negative influence. We consider professional socialization an important learning outcome for students and a task for health care educators. In this chapter we provide a primer on professional socialization and then discuss how storytelling and role modeling contribute to professional socialization.

A Primer on Professional Socialization

Professional Socialization*.* Through professional socialization processes, educators support learners as they gradually develop a sense of belonging to specific professional groups. Professional socialization occurs through a combination of professional education and clinical experience (Beck, 2014). In a study of Japanese nursing students, Condon & Sharts-Hopko (2010) found that professional socialization is multidimensional and includes influences from classroom experience, clinical practice and extracurricular elements. Zarshenas et al. (2014) explore factors affecting professional socialization of nursing students and discover that a sense of belonging and professional identity underlies successful professional socialization. More specifically, this sense of belonging develops through educational experiences and tacit knowledge; acquiring professional identity evolves in part from internal motivation and role modelling (Zarshenas et al., 2014).

Professional socialization is considered a process that begins on day one of formal education programs and continues as learners graduate and enter the work force. Peers, instructors, preceptors, mentors, and patients and their families can all be socializing agents (Chitty & Black, 2011). Black (2013) emphasizes that socialization occurs through a combination of formal and informal processes (such as unplanned observations). She notes that to be most effective, formal socialization in educational programs should occur through a deliberate, systematic block-building process. Socialization occurs in part in the clinical setting where affective learning outcomes are achieved often through observation of other practitioners who demonstrate a commitment to professional values. The clinical setting is also where learners are held accountable for their actions and the outcomes of their interventions are apparent (Gaberson, Oermann & Shellenbarger, 2014).

Studies with social work students reveal how difficult it can be to accurately measure values and attitudes (Barretti, 2004) and to understand how changes actually occur (Valutis, Rubin & Bell, 2012; Weiss, Gal & Cnaan, 2004). In physical therapy, the professional socialization process is highly influenced by interactions with peers and faculty (Teschendorf & Nemshick, 2001). For student athletic trainers, professional socialization is affected by legitimation from socializing agents such as patients and clinical instructors (Klossner, 2008), and by communication with practitioners (Mensch, Crews & Mitchell, 2005).

Educators actively guiding learners towards professional socialization is generally agreed to be important. While educators may set out to assist learners in graduating fully socialized for their professions, many report feeling unprepared to fulfill this role (Clark & Holmes 2007; O'Shea & Kelly, 2007). Further, although new graduates have the competencies for licensure, concern remains about their socialization to professional practice (Gaberson, Oermann & Shellenbarger, 2014). Feng & Tsai (2012) conclude that new graduates are often stressed when organizational and professional values clash. More specifically, Feng & Tsai (2012) find that the organizational value of task-oriented nursing clashes with the professional value of patient-oriented nursing, resulting in distress for neophyte nurses. Clinical educators must therefore deliberately include strategies to help learners become socialized to their professions. Understanding professional identity and values provides a foundation that can help develop these deliberate strategies.

Professional identity is a form of social identity by which members of a profession categorize and differentiate themselves from other professions (Schein, 1978). Professional identity is categorized by Wackerhausen (2009) as macro (status, privileges, duties and self-image of the profession) and micro (tacit behavioural norms of the profession enacted by individuals). According to Enns (2014) nursing professional identity is born out of values and encompasses both the individual's sense of self as a nurse and the image of nurse they project to others. Professional socialisation, in part through formal education, means that individuals are likely to strongly identify with their own professional group (Coyle, Higgs, McAllister & Whiteford, 2011).

Professional values, one essential element of professional socialization, are key to success as a practitioner, as they provide a foundation for behaviour (Chitty & Black, 2011). Professional values are the *blueprint for action* for exemplary care providers (Perry, 2009a).

Values are defined by Schwartz (1994) as "guiding principles in the life of a person that motivate action, function as standards for judging and justifying action, and that are acquired both through socialization and through the unique learning experiences" (p. 21). Some research indicates that existing values may influence career choice. For example, Adams, Hean, Sturgis & Macleod-Clark (2006) propose that nursing students are guided in their career choice in part because their personal values align with values of the profession. In other words, students may begin their training programs with certain values in place that are desired by the profession. While the values favoured by dissimilar professions may vary, Thorpe & Loo (2003) discovered that the values of altruism (a desire to help others) and personal development (desire to develop as a person) influence the choice of nursing as a career. Fagermoen (1997, p. 439), one of the early researchers who linked values to certain professions, concludes that common core nursing values include dignity, personhood, being a fellow human, reciprocal trust, and personalization of care. Because of the likely link between values and professional identity, Adams, Hean, Sturgis & Macleod-Clark (2006) conclude that new nursing students have some professional identity prior to professional socialization.

Creative Strategies

Minute at the Movies

To encourage learners to reflect on their values and beliefs, you can use examples of human interaction from movies or other media as triggers for new learner insights. For this group or conference activity, try providing students with brief clips from inspiring movies related to their real-time clinical situations. For example, to trigger reflection and discussion related to palliative care and the meaning of life and death, you could show the trailer from A Fault in Our Stars or Wit at a post-practicum conference.

Students watch the clip and share their observations in response to a specific reflection question that you provide. In this example, the reflection question could be as simple as "What did this movie teach you about dying?" Often students bring in their own examples from other movies or television shows that they find relevant, furthering the breadth and depth of the discussion.

Linking Professional Identity and Values to Career Fulfillment

Association between professional socialization, values clarification, professional identity and career fulfillment.

One foundation of providing competent health care may be professional socialization that develops professional identity and values. Bernard, Maio & Olson (2003) state that values are the foundation of our attitudes and beliefs that "encapsulate the aspirations of individuals and societies and encompass deeply engrained standards that determine future directions and justify past actions" (p. 64) Thus, professionals determine priorities, weigh options and choose actions based on values (Bardi, Hofmann-Towfigh, Lee & Soutar, 2009).

In linking professional identity and values Fagermoen (1997) concludes that "values are inherent in developing and sustaining professional identity and are expressed in…actions in relation to others" (p. 436). Further, applying core values in professional practice increases work satisfaction, which continues the cycle of value enactment (Perry, 2009a). More specifically, nurses who perceive they provide high quality care and make strong connections with their patients are usually very satisfied with their career choice (Perry, 2005).

Creative Strategies

The Health Professional I Would Like to Be

Invite students to describe the characteristics or qualities of a health professional they know or to

imagine a perfect health professional in their field. Discuss the common qualities and characteristics of the health professionals they aspire to be like. Ask them to reflect on their current image of themselves as a health professional and to compare this image to their ideal. Have them identify two areas they would like to focus on for improvement.

Storytelling

to effective professional socialization of health care learners. The clinical setting is rich in opportunities for educators to use learning activities and teaching strategies that achieve what are often learning outcomes from the affective domain. Methods of teaching psychomotor skills and cognitive knowledge are often more straightforward. Effective clinical educators take the challenge to reach learners on an emotional and attitudinal level. Storytelling is an affective strategy that invites students to make links between the professional they hope to be, the values they hold, and the career fulfillment they desire.

Using ***arts-based teaching strategies*** helps students make an emotional connection to their learning, caters to a variety of learning styles, and increases student achievement (Perry & Edwards, 2015). Arts-based approaches may stimulate creative, critical and analytical teaching about clinical situations. Telling stories is a teaching approach rooted in the arts. It can have positive effects on teacher–learner and learner–learner rapport, interaction and community building. Art moves individuals to look at the broader view of concepts and ideas, encouraging them to look at multiple facets and dimensions. Learners are encouraged to move away from breaking knowledge into discrete elements for analytical assessment and from looking at learning as a checklist or assembly line of tasks. Since professional socialization is more non-concrete, it requires multi-layered and complex strategies that inspire thinking broadly, deeply and holistically.

Clinical instructors can use relevant patient stories to trigger transformative learning. Stories can come from many sources, including the instructor's personal repertoire of clinical experiences, published clinical stories, or from the students themselves. To be most effective, storytelling should be a deliberate and guided learning activity. Stories need to be carefully selected for their relevance to the clinical situation, learner level and desired value or attitude lessons. After sharing the story (either verbally or in written form) the instructor should be prepared to lead a discussion guiding learners to express their reflections and evaluate their conclusions. A summation of the learning experience will help learners clarify and reinforce take-away concepts and ideas.

Emotional Connections

The following is an example of a story that can create emotional connections with learning. This story might be used by nursing instructors in a post-clinical face-to-face conference or an online discussion forum after a shift on a medical unit.

A year or so ago, I was working nights. My patient became increasingly restless and agitated. He had a progressive dementia and he was more disturbed than any patient I had cared for in my 25 years or more of nursing. That night, he required two-to-one nursing care.
Around 0300 hours the other nurse I was working with observed that, in spite of his verbal lashing out, he had never once cursed. She remarked that he must not have "bad" words in his normal vocabulary because usually what is in a mind comes out in confusion. The night wore on with our patient experiencing agitation, yelling and extreme restlessness. He would bite his own hands and arms and grab on to anything near him. We began to wonder if we could ever help him rest. I remember feeling helpless and hopeless.
Then I heard him repeat a series of words in a garbled fashion and recognized the words of an old hymn. I began to sing the hymn and immediately he became quiet. The change was instantaneous and profound. The other nurse was able to leave for a break while I sat beside him singing every hymn I could remember.
As long as the hymns were sung, the patient rested. (The nurse added a side note saying that it was a good thing she was a pk—a preacher's kid—and because of this, she knew a lot of hymns). We later found out that the man had been a lay pastor, and perhaps this explained his reaction to my music.

I loved being his nurse because none of the usual textbook interventions worked. He required flexible, creative nurses who were not afraid to try the unconventional and who were willing to keep trying until we could find a way to connect with him and his needs. Large doses of artificial sedation made no difference. Somewhere in the deepest levels of this man's mind, our presence through music and just being near touched him. It was a profound night because all my years of training and education came down to the simple singing of a song. (Perry, 2009a, p. 210)

A storytelling strategy in clinical teaching may stimulate learners to interact with their colleagues in sharing their insights and comparing their analyses. Connectedness, interrelatedness and integration may be an outcome when arts are the foundation of teaching strategies (Eccles & Elster, 2005). As Clarke & Widdicombe (2002) conclude, the arts as a component of teaching strategies engage students totally, "not just with pen and pencil, but also with imagination" (p. 45).

Creative Strategies

Sharing an Inspirational Story

Share an inspirational story with your students. Include how the story reflects your own journey towards professional identity, your own values, and how this contributed to career fulfillment.

The Patient I Will Always Remember

This learning activity is also rooted in the arts and in storytelling but takes a slightly different approach. The exercise requires instructors to be reflective and willing to be emotionally vulnerable to learners. You can recall and share with learners the story of a person you cared for in clinical practice. Your story can be shared orally or in writing and should be accompanied by guided reflection and discussion questions. The clinical post-conference (either face to face or in an online discussion forum) is an appropriate setting for this learning activity. Success of this learning activity depends heavily on careful selection of the patient example to make it appropriate to the learners and to the clinical setting. The following is an example of a story told by an instructor to a group of nursing students during a public health clinical rotation.

This patient I remember often was a street person. She had lived a hard life. It was beyond anything I had ever experienced. Her hard life was paralleled by her equally hard death. When she did come in to clinic she was dirty, dishevelled, often carrying insects in her backpack and on her frail body. Other staff freaked out when she came in, afraid of bed bugs and lice and afraid of her because her life script was so different from theirs. She actually didn't have a home so home care was not an option. She didn't have a home but she did have a cell phone and when I would call to check on her pain level or some other issue and I would ask "where are you" she would answer matter-of-factly "on my bench." She had taken ownership of a park bench and this was her "home."
Although her life was far different from mine there was something that drew me to her. I came to know her well over her years of treatment and I always tried to make time to hear at least one of her street stories. I listened to her – to her words but also to the embedded messages and cries for help. I would like to be able to say I was able to whisk her into a clean hospice room and fix all her social and emotional issues but this wasn't to be. In the end she died in her own world but I hope she knew at least one other person cared about her.

Transformations

Storytelling can create transformation in the way learners think about and view the world. Jack Mezirow (1981) defines transformational learning as critically reflecting on our assumptions and beliefs, then intentionally creating a new view of the world. He labels this "perspective transformation." O'Sullivan (1999) emphasizes that transformative learning involves a deep shift in consciousness that changes a person's view of their place in the world. Introducing educational approaches that challenge learners to

consciously examine their unrecognized underlying views and assumptions may transform their view of the world. Learning approaches that challenge students to question what they believe to be true, and ultimately to interpret information more critically, can be transformative (Melrose, Park & Perry, 2013).

Research supports the potential influence of transformational learning strategies on value development. Williams et al. (2012) describe transformational learning approaches as one approach that enhances value development among nursing students. Such approaches must be based on active, realistic experiences that engage students in self-directed inquiry and critical thinking. More specifically, Williams et al. report that an effective strategy for professional socialization is to have students working in small peer groups to discuss real practice scenarios. Students exposed to this learning strategy are self-directed learners and advocates for patients and their profession upon graduation.

In the clinical situation, the practice scenario strategy used by Williams et al. could become real scenarios within a storytelling teaching approach, rather than fictitious cases. Opportunity for students to share their clinical experiences with one another, and facilitated deconstruction and discussion of these scenarios in small groups or conferences, offers the potential for transformational learning. How can clinical instructors skilfully guide these discussions to optimize this potential? Before attitudinal shifts can occur, learners need to critically reflect on assumptions they believe are true. Challenging these assumptions, at both a cognitive and an emotional level, can be difficult and the reflection process is unlikely to be spontaneous. Instead, instructors must provide learners with opportunities to question their views on specific ideas or issues. Activities with no right or wrong interpretations can stimulate critical reflection.

Creative Strategies

Which Patient Would I Choose?

The Which Patient Would I Choose? strategy is one way you can guide students in uncovering their assumptions about patient race, gender, sexual orientation, social economic status, etc. In this learning activity, hold a group debriefing session after a clinical practice shift. Ensure a private setting where students can speak openly about their experiences. Have each student report briefly about a person he or she cared for during the shift, ensuring the student includes patient biographical details as well as health status updates. Next, ask learners to select the two patients, from those described by their peers, that they would choose to care for if they had the option to select. Students also identify two patients they would choose not to care for. Ask learners to then consider why they made their choices and record any common themes they observe in their own choices. After working on their choices individually, students share their choices of patients and their reasons. The goal of this activity is to help students examine their deeply held values, biases and attitudes. Value awareness may be an initial step in value transformation and professional identity development.

Giving Voice with a Photo

Mezirow (1981) emphasizes the importance of providing challenges within educational process. Teachers who challenge learners provide them with opportunities to question commonly accepted values and to reflect critically on points of view that are different from their own. Using selected photographs as an approach to storytelling can challenge learners. Again, the photo selected must be relevant to the clinical setting and should be chosen to deliberately challenge specific values, assumptions and attitudes students may hold. The image can be circulated during a group learning activity, such as a post-clinical conference, to focus student attention and initiate discussion of reflection questions provided by the instructor. As an alternative, students can be asked to provide images they locate that challenge their attitudes and values and make then consider alternative views. These student-generated images can also be shared and discussed as a group.

Many open educational sources offer images that can be used for educational purposes. For example, Flickr is Creative Commons licensed and images can be downloaded and printed for educational purposes. The following is an example of an image used to provoke discussion and to challenge embedded attitudes related to aging.

https://www.flickr.com/photos/75536060@N07/7396968570

Role Modeling

Merton (1949, 1957, 1968) introduces the concept of role modeling as the process by which medical students in his study compared themselves to a reference group. Bandura's (1963) social learning theory furthers our understanding of how imitation and observation of others contributes to human learning. Modeling and Role-Modeling (MRM) theory, developed by Erickson, Tomlin & Swain (1983, 2010), proposes that when learners observe models, they perceive another person's point of view, values and framework. The results are learner growth and improvement.

Role models influence student values and professional identity development; experiences with role models can facilitate transformational learning. In a study of effective role modeling in nursing education, Mokhtari Nouri, Ebadi, Alhani & Rejeh (2014) conclude that educators need to pay attention to personal and environmental factors. Further, these investigators conclude that observational learning through role modeling is especially important in clinical settings. In such settings, instructors both teach skills and demonstrate values and attitudes as learners come to reflect what they see, hear and observe.

Helping learners attain learning outcomes from the affective domain is challenging but role modelling is one strategy to support attitudinal and emotional growth (Perry, 2009b). Cultivating attitudes such as compassion and caring is complex, so reaching these learning outcomes can create emotional challenges for students and instructors (Curtis, 2014). Modeling of compassionate practice by a skilled clinical instructor or preceptor is one strategy for furthering adoption of professional attitude and identity by health care learners. The following is an example of observation of an exemplary nurse as role model, recorded in field notes by Perry (2009a). The role model taught the nursing intervention of touch to establish connection with a patient, a skill that is challenging to teach in any way but through modeling.

> *She often sits on the bed next to her patients, or she stands very close to their chairs. This physical closeness seems to create an air of familiarity. It makes their relationship close very quickly. It was by touching, by holding her patient's hand, laying a cold cloth on her forehead, and rubbing her sore back,*

that the nurse communicated that she cared. All that she did with touch said how much she wanted to help (Perry, 2009a, p. 81).

Do slowly, think aloud. Model teachers facilitate emotional growth in learners by demonstrating effective interactions and interventions. Clinical educators need to embrace the reality that everything learners see their instructors do or hear them say (or not say), may be observed and may influence socialization and eventual success of graduates. This is a heavy responsibility but it is a reality of accepting the role of clinical instructor. Instructors who choose to maximize the potential positive effect of their role modeling my deliberately slow down their actions and interventions to allow learners time to observe fully and absorb what is happening. When appropriate role models speak aloud their rationale for selected actions and interventions, they maximize the teaching potential of a situation. The following example of a role model (exemplary nurse) demonstrates nursing interventions in such a manner.

Her patient tonight can't talk. Each breath is a struggle. He is so afraid that the next breath just won't be there. In his eyes I see an unmistakable look of panic. A laryngeal cancer and tracheostomy have taken his vocal cords and a tonsillar tumour has impaired his hearing. How can she let him know that she is there, that she cares? She works slowly. She doesn't say a word. As she strokes his hair, her eyes tell him what he so desperately wants to hear: that she is with him, that she will stay, that she will watch over him. Gradually, silently, he drifts off to sleep. When we return to the med room she tells me her beliefs about the importance of the nursing intervention of silence and touch in communicating caring. (Perry, 2009a, p. 60)

Admit when you make a mistake. The reality is that no one is perfect, including clinical educators. The educator may be less than perfectly prepared mentally, physically or intellectually to model exemplary care on some days. Learners may observe errors in judgement, responses that are less than therapeutic, or rushed interventions. Reflective educators will be aware of possible negative modeling and openly discuss their reflections with learners. Together the instructor and students should analyze the situation and develop more optimal approaches to be used in subsequent patient care situations.

Cultivate opportunities to role model. Since role modeling is a powerful teaching tool for health care learners, clinical instructors will want to seek out opportunities to model specific values and professional attitudes they want to cultivate in students. Clearly articulating these desired values and attitudes in learning outcomes can highlight points that educators will focus on modelling. For example, if students are to develop strategies for respectful communication then role models should prepare themselves to demonstrate this and watch for opportunities to have students observe them. Follow-up with learners is important to be sure the role modeling is effective and students internalize the desired learning.

Appropriate use of humour. Humour is seeing the funny in everyday encounters and maintaining a light-hearted attitude (when appropriate) in potentially difficult situations (Perry, 2009b). Curtis (2014) notes that learners value an appropriate sense of humour in role models and find it facilitates their learning. Role models who use humour effectively and appropriately help students to manage their feelings of vulnerability and maintain their emotional well-being in challenging clinical situations.

Consider using social media. Students can receive role modeling from a variety of sources. Clinical teachers are an obvious source of modeling but other health care professionals in the clinical environment often model positively or negatively. In negative situations instructors need to provide learners with opportunity to discuss and interpret what they observe. Social media such as Twitter may also provide a type of modeling for learners. In one example students sought to develop leadership skills for the clinical setting. They were invited to follow the Twitter feed of a well-known leader in their profession and to extract leadership lessons from what they read. Students were asked write a paper translating these leadership lessons into effective leadership approaches in the clinical setting. The learning activity encouraged learners to seek role models from a variety of sources and to participate in higher order learning through analysis and evaluation. Learners are motivated to engage in this learning activity in part because of its novelty and in part because it used a medium with which they are familiar and comfortable.

Conclusion

Fully educating health professionals includes helping to socialize them to their professions. Clinical educators have an important opportunity and responsibility to guide learners in developing values and professional identity as steps in the process of professional socialization. Health care students may bring deeply seated and well-established beliefs and assumptions to their learning. Cultivating selected values and attitudes can be a challenge for educators. Formation and transformation are possible in part through approaches such as storytelling and role modeling. Clinical educators can utilize creative teaching approaches akin to transformational learning pedagogy to facilitate professional socialization in learners.

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CHAPTER FIVE - TECHNOLOGY ENHANCED CLINICAL EDUCATION

"Technology gives us power, but it does not and cannot tell us how to use that power. Thanks to technology, we can instantly communicate across the world, but it still doesn't help us know what to say."
—Jonathan Sacks

Media Release Nov 14, 2014
Simulation isn't just a game!

Each year the Canadian Association of Schools of Nursing honours an outstanding leader in nursing research with the Pat Griffin Scholar Award. This year's winner is **Dr. Bernard Garrett**, a scholar with a passion and commitment to advancing the quality of nursing education. His area of research is focused on the use of educational technologies, in particular virtual and augmented reality in the support of clinical nursing skills.

Nurse educators have been using simulation for years to give nursing students the opportunity to practice life-saving procedures in an environment that does not endanger patients. Simulation can also be used to master basic skills, role play challenging situations, or practice critical interventions, but simulation does not replace real experience with patients.

Augmented reality, which is used both in simulation labs and clinical practice, overlays the real world with digital data that is accessible and expands the way we take learning out of the classroom into the real world. In this new 'real world', elements are augmented by computer-generated sensory input (sound, video, geographical data) that allows students immediate access to information that supports them in their practice. So in the near future, if you see your nursing student reach for her smart phone, it's likely she will be using it to gather information from symbols on medical equipment instructing users on safe and appropriate use.

Canada and nursing education are still in the early stages of developing augmented reality but with researchers like **Dr. Garrett (RN PhD UBC)** we will get to where we need to be: a real world patient environment where nurses and nursing students are supported by accessible, interactive educational technologies. (University of British Columbia, 2014) http://www.nursing.ubc.ca/News/NewsItem.aspx?id=372

Advances in technology over the past few decades have had an impact on all aspects of life in North America. The practice of health care and the education of all health care professionals are no exception. Technology for communication through email made it possible to share information relating to patient care or health professions education much more quickly than snail mail or pneumatic tube systems. Although email was tortuous in the beginning, it became more functional with availability of browsers such as Internet Explorer, Firefox and Chrome.

Once we had browsers and file sharing, electronic communication of lab results and pharmacy prescriptions became standard within hospitals. Still, many years passed before a hospital system could communicate with systems outside the facility. Many hours and dollars were spent trying to get one system to speak to another. Now with the internet present ubiquitously, information and records can be paper-free and stored in cyberspace. The most recent advance, the smart phone, allows practitioners, students and educators to hold access in their hand at all times, with the correct passwords, to all the information they need for their work or studies.

This communication technology now extends to the community, into clinics and into private homes. Beyond merely sharing information, we can now share physiological data. Patients can send their blood pressure, their heart rate, their cardiac rhythm, etc. via the Internet to a health care provider through what are now called Wearables. Beyond needing to learn how to use these information technologies in patient care, health care students need to learn how to use a myriad of computer-regulated equipment such as IV infusion pumps, digital scales and cardiac monitors. The practice of health care and the basic education of practitioners must encompass understanding and skill with technology.

In this chapter we suggest that entry level practice requires use of technology. We give an overview of a sample of common technologies and comment on how teachers need support to use technology. Describing specific strategies for clinical instruction relating to all technologies is not possible here. Our intent is to uncover the possibilities for technology use in the clinical setting and to direct clinical instructors towards appropriate resources.

Entry Level Practice Requires Use of Technology

Health care professionals must be able to understand and use technology in their workplace. They must use information technology to assess and manage patient or client information and they must understand the associated ethical and legal considerations. In most health professions, entry level competencies spell out the expectations for beginning practitioners. For example, community health pharmacists have specific competency requirements for using the Electronic Health Record and the Computerized Pharmacy Management System, (Accreditation Council for Canadian Physiotherapy, 2009: NACDS and NCPA Task Force, 2012).

In nursing, individuals are required to be literate and competent in informatics and other communications technology. Prior to entering their program, nursing students are expected to be able to use "personal computers, tablets and mobile devices as well as other peripheral devices including USB drives and printers, ... email, multimedia such as videos and podcasts, word processing applications, and be able to navigate operating systems such as Microsoft Windows®, social media and use technology that supports self- directed learning" (Borycki & Foster, 2014, p.15).

As an illustration of the importance of informatics, a committee of experts at the Canadian Association of Schools of Nursing (CASN) has prepared a document on nursing informatics needed for entry to practice "to promote a national dialogue among nurse educators, informatics experts, and nursing students on integrating nursing informatics into entry-to-practice competencies; to increase the capacity of Canadian nurse educators to teach nursing informatics; and to engage nursing's key stakeholders in developing nursing informatics outcome-based objectives for undergraduate nursing curricula." (CASN/CHI, 2012, p. iv).

NURSING INFORMATICS INDICATORS FOR DELIVERY OF PATIENT/CLIENT CARE (CASN/CHI, 2012, p.10)
Identifies and **demonstrates** appropriate use of a variety of information and communication technologies (ICTs; e.g., point of care systems, EHR, EMR, capillary blood glucose, hemodynamic monitoring, telehomecare, fetal heart monitoring devices) to deliver safe nursing care to diverse populations in a variety of settings.
Uses decision support tools (e.g., clinical alerts and reminders, critical pathways, web-based clinical practice guidelines) to assist clinical judgment and safe patient care.
Uses ICTs in a manner that supports (i.e., does not interfere with) the nurse-patient relationship.
Describes the various components of health information systems (e.g., results reporting, computerized provider order entry, clinical documentation, electronic Medication Administration Records).
Describes the various types of electronic records used across the continuum of care (e.g., EHR, EMR, PHR) and their clinical and administrative uses. Describes the benefits of informatics to improve health systems, and the quality of interprofessional patient care.

Clearly, clinical education is an appropriate arena for learning to use assessment tools that are moving more and more into the digital realm and for practicing using information systems. Although curricula related to ethical and legal issues may be covered in classroom settings, physical use of the technologies in clinical setting can bring issues to life new ways.

Creative Strategies

How Do We Access Data?

Although you may be very familiar with accessing the data you need in the clinical practice area where you teach, think about what the process looks like through the eyes of a student new to the profession. Make a list of the digital communication and information gathering tools in use at the practicum site. Compare the tools on this list to those incorporated into your program's lab activities for students. If students have not been introduced to some tools, seek out ways to provide additional practice time during pre- or post-practicum conferences or in a clinical lab.

Your students will be working in many different practice facilities and most will use different programs for their patient data. Know in advance the procedures in each facility. How do students access the data? Do they need passwords? Do they access data at a specific time?

Try to obtain examples of the presentation of lab work, medication recording and charting and incorporate this into all levels of simulation with students.

Some programs have established web portals to host examples from multiple facilities, helping students gain alternative experiences. This may not be practical for you but you can make a mock set-up with screen shots from various clinical placements for your case studies.

Common Technologies

MCN Nursing Simulation Laboratory
Illinois State University students work inside the new Mennonite College of Nursing Simulation Laboratory in fall 2011.

Simulation

Simulation is one of most common and widely used technologies in practicum components of post-secondary education programs. In aviation, flight deck simulators that focus on developing cognitive and psychomotor skills have long been known to enhance pilot competence and reduce human error (Helmreich, Merrit & Wilhelm, 1999; Taylor, Dixon-Hardy & Wright 2014). In business administration,

simulated experiences are used to strengthen skills needed in crisis-based activities (Aertsen, Jaspaert & Van Gorp, 2013) and to support students' abilities to manage their information technology portfolios (Larson, 2013). In bioengineering, simulations help students address challenges in understanding complex bioprocesses and systems (Roman, Popescu & Selișteanu, 2013).

In health care, simulation offers a safe environment for students to practice their skills and begin to adopt professional values (Shepherd, McCunnis, Brown & Hair, 2010). Since simulation can emulate the practice environment, the option of replacing required clinical hours with simulation activities has been debated for a number of years and remains contentious. Debate continues on whether simulated activities can or should replace contact with patients and if so, to what extent.

Regulatory bodies usually determine the number of hours professional programs must allocate to clinical practice. Hayden, Smiley, Alexander, Kardong-Edgren & Jeffries' (2014) seminal work with 10 pre-licensure programs across the United States replaced up to 50% of traditional clinical hours with simulated activities. They then assessed student competency at program end through clinical preceptor and instructor reports and pass rates on the required National Council Licensure Examination (NCLEX). The students were also evaluated by managers after their first six months of practice. There were no statistical differences in the preceptor, instructor or manager ratings of students who completed traditional clinical hours and those who participated in simulation activities. The authors concluded that "substituting high-quality simulation experiences for up to half of traditional clinical hours produces comparable end-of program outcomes and new graduates that are ready for practice" (p. S3).

Dictionary definitions are usually a good place to begin description. The Dictionary.com definition

> **Simulation**[sim-yuh-ley-shuh n] noun
>
> imitation or enactment, as of something anticipated or in testing.
> the act or process of pretending; feigning.
> an assumption or imitation of a particular appearance or form; counterfeit; sham.
> Psychiatry. a conscious attempt to feign some mental or physical disorder to escape punishment or to gain a desired objective.
> the representation of the behavior or characteristics of one system through the use of another system, especially a computer program designed for the purpose. "

Using this broad definition, every activity in a clinical lab and pre- and post-practice activity is a form of simulation. Systems that imitate or pretend to act as patients include actors, manikins and different types of machines posing as patients.

In health care education, the word simulation became more prominent in recent years with the development of low-, medium- and high-fidelity manikins, artificial human patients, or artificial parts of patients that respond electronically to intervention by the learner. These fit the fifth definition of simulation. Clinical labs around the world now house such manikins, with computerized scenarios and lab technicians to run case study practice sessions that are as close to reality as possible without a human patient.

As its definition indicates, simulation also includes low-fidelity activities such as case study discussions, role-playing interactions with patients, and practicing skills such as changing dressings or giving injections. Many of these activities can be implemented without actors or costly manikins to simulate patients and their conditions. Although the introduction of high fidelity has increased skills practice in emergency and specialty situations (Sharp, Newberry, Fleishauer & Doucette, 2014), simulation involves more than simply having learners use machines to practice required skills. Journals such as *Clinical Simulation in Nursing*, organizations such as the International Nursing Association for Clinical Simulation and Learning and interest groups such as the CASN Simulation Interest Group offer valuable guidance for using a full range of simulation activities in clinical teaching.

Simulation has the potential to improve education outcomes. In health, a meta-analysis of studies relating to health professions education concludes that "[i]n comparison with no intervention, technology-enhanced simulation training in health professions education is consistently associated with large effects

for outcomes of knowledge, skills, and behaviors and moderate effects for patient-related outcomes." (Cook et al., 2011, p. 978). Studies in medicine, paramedic training and nursing support this conclusion. In medical education, simulators help novice surgeons develop their skills, retain knowledge, and reduce procedure times and error levels for laparoscopic surgery (Al-Kadi & Donnon, 2013). In paramedic education, creating simulated accident scenes helps firefighting and paramedic students prepare for situations they will encounter in practice (Smith & Anderson, 2014).

In nursing, simulation experiences may enhance knowledge gains (Gates, Parr & Hughen, 2012; Shinnick, Woo & Evangelista, 2012; Weaver, 2011), decrease medication errors (Shearer, 2013), be equivalent to traditional clinical experiences promoting student acquisition of fundamental knowledge (Hayden et al. 2014; Schlairet & Pollock 2010), and increase self-confidence (Leavett-Jones, Lapkin, Hoffman, Arthur & Roche, 2011) and efficacy (Dunn, Osborne & Link, 2014). However, questions remain as to how these outcomes transfer to the clinical setting (Norman, 2012), if they promote an unrealistic level of self-confidence (Liaw, Scherpbier, Rethans & Klainin-Yobas, 2012) and if they heighten stress (Weaver 2011).

The Stages of Simulation. No matter what type of simulation activity you implement, like any learning experience, simulations require detailed planning. Some learning institutions house high-fidelity simulation labs that are complex environments and often have dedicated simulation experts available. In other instances, clinical teachers will lead students through a series of activities geared towards developing specific skills. We suggest seven stages that can be adapted and modified to guide most simulation activities: 1) choose or write a scenario; 2) obtain and set up equipment; 3) determine the student pattern or roles; 4) offer pre-briefing activities; 5) implement the simulation; 6) facilitate a debriefing discussion; and 7) evaluate the activity.

1. Choose or write a scenario

All planned learning experiences should address specific learning objectives. This is no less important in a simulation. What does the instructor want the student to accomplish in the planned setting? Every simulation should have a goal, a context and a story, whether it is a case study on paper, an actor as patient/client, a situation in Second Life, or a full high-level simulation. The learning objective should thread through the simulation, allowing students to understand the goal and yet not excluding incidental learning (chapter 3). Some educators do not want the students to know the specific goal in advance. This should be stated explicitly (Alinier, 2011; Brackney & Priode, 2015).

Once you determine your goal, you can take several routes to design your simulation. Vignettes, story boards, flow charts and scripts are part of pre-planning and design. They will indicate when and where the students will receive content and context information. They can be home-made by instructors, purchased from provider companies such as Pearson, or found free on the Internet. Reid & Raleigh (2013) provide a selection of simulation scenarios. As students advance in their program, they can be invited to suggest or write scenarios.

2. Obtain and set up equipment

Whatever the degree of fidelity, simulation activities require equipment. It could be oranges and syringes to simulate giving intramuscular injections or a complex piece of machinery such as these simulators from Carolina Health Care System.

Patient Simulators	
HPS Adult	NOELLE® Maternity Simulator
HPS Pediatric	SimBaby and SimNewB
HPS Pediatric	SimJunior
MegaCode Kid	SimMan and SimMan 3G
Newborn Hal	
Virtual Reality Simulators	
Endoscopy/Bronchoscopy Simulator	Ultrasound Simulator
IV/Phlebotomy Virtual Reality Trainer	Virtual Reality Laparoscopic Trainer
Other	
EZ IO	SonoSite M-Turbo
GlideScope	Storz Video Laryngoscope
Task Trainers	
Adult IV Arm	Orthopedic Task Trainers
Airway Management Trainers	Pediatric IV Arm
Arthroscopic Task Trainers	Pediatric Lumbar Puncture Trainers
Arterial Arm Stick Kit	Portable Laparoscopic Box Trainers
Arterial Puncture Trainer	PROMPT Birthing Simulator
Branched 4 Vessel Ultrasound Training Block Model	Regional Anesthesia Ultrasound Central Line Model
Catheterization Trainers	Thoracentesis/Paracentesis Trainer
Central Line and Femoral Line Trainers	TraumaChild
Laparoscopic Box Trainers	TraumaMan
Lumbar Puncture Trainer	VascularAccessChild
Lumbar Puncture and Spinal Epidural Training Model	ZOE® Pelvic Examination Trainer
Midscapular Thoracentesis Ultrasound Training Model	

Determine the equipment you need, practice working with it yourself, and plan the specific amount of time each student is likely to need compared to the time allotted for your group. Whenever possible, apply moulage, or the process of applying make-up or other props to help make the simulation as realistic as

possible (Merica, 2011). Simply adding personal items such as clothing and wigs to manikins can help make them seem more lifelike.

Bear in mind that simulation experiences do not need high fidelity. Setting up practice time with equipment that students will be using in their hospital, clinic or community placement is also an important simulation. For example, how can you create opportunities for students to work with electronic data collection and recording or with operating IV pumps?

3. Determine the student roles

Clinical practicum placements are now at a premium. Not every student can experience every situation or skill under the guidance of their instructor. This is also true in high fidelity simulation labs. To maximize the learning, consider dividing students into different roles. For example, one student might actively provide care, a second student might act as consultant to the care provider, and a third student could keep records. Rotate students through each role in a timely manner and ensure that all students do participate in providing care.

4. Offer pre-briefing activities

Pre-briefing is recognized as important in developing learners' clinical judgement and thinking. Established goals of pre-briefing activities are to support students' capacity to "notice aspects of the clinical situation, anticipate patient needs, and focus on the application of existing knowledge" (Page-Cutara, 2014, p.140). Students need to know why the simulation is salient and relevant to their future practice. Clearly outline the learning objectives, the expectations for each role, and times allotted to each activity. Provide any available advance reading or pre-testing activities. Review any medications in the simulation (Brackney & Priode, 2015). Specify how the simulated activity varies or is different from real life experience (Willet, 2013).Whenever possible, invite students to walk around the equipment and become accustomed to the space before the simulation activity begins.

5. Implement the simulation

Jeffries' (2005) seminal model for implementing simulation activities emphasizes having teachers offer frequent cues or directions to learners and provide ongoing feedback throughout the simulation. Expect that learners may feel anxious and self-conscious as they perform new psychomotor tasks in front of peers. As in the clinical situation they are designed to illustrate, simulation activities may not all progress as planned. Use these opportunities to model professionalism and critical thinking.

6. Facilitate a debriefing discussion

Debriefing is considered a critical component of any simulation activity (Boellaard, Brandt, Johnson & Zorn, 2014; Cockerham, 2015; Fanning & Gaba, 2007; Jaye, Thomas & Reedy, 2015; Jeffries 2005; Shinnick, Woo, Horwich & Steadman, 2011; Wang, Kharasch & Kuruna, 2011). Ensure that time and space are available for all those who have participated in a simulation activity to share their feelings and perceptions about what occurred. In some instances, planning more time for debriefing than for the actual simulation activity is needed.

Begin the discussion, either with students individually or in groups, by inviting students to reflect on their experience and describe what happened, without interruption and in their own words. Follow this by asking what they might do differently next time. Emphasize how the process of balancing negative and positive reflections can strengthen clinical reasoning skills. Conclude the discussions by eliciting comments from students about how they can transfer what they learned to future situations.

With larger groups, create dyads for students to share their reflections with a partner. Monitor the timing of the partnering discussions so each partner has an equal opportunity to speak. Private reflections in the form of journal entries can also be used as a debriefing strategy.

7. Evaluate

Evaluating student performance during any simulation activity should mirror clearly established learning objectives. See chapter 6 for an in-depth discussion of student evaluation. Psychological safety or feeling

comfortable about truthfully expressing their reflections on their performance is especially important for learners during and after simulation activities (Morse, 2015; Runnacles, Thomas, Sevdalis, Kneebone & Arora, 2014). Frame evaluation discussions with a reminder that the purpose of simulation activities is to provide opportunities for practicing skills in a safe environment where patients will not be harmed.

Evaluation must also include measurement of the value and usefulness of the simulation activity. Be sure to provide students with the opportunity to share any recommendations they have for improving the simulation. A short, anonymous online evaluation form with specific multiple choice questions about the experience can also serve as a debriefing activity.

Creative Strategies

What's the Hardest Part?

Despite the complexities in any simulation activity, when we deconstruct the process we will likely find one or two key elements that stand out as particularly difficult and anxiety-provoking. These difficult or hardest parts may be common to most learners or they may be quite individual. For example, nursing students may state that putting the needle in was the hardest part of their first intramuscular injection. Others may comment that mapping the injection site was the hardest part. Exploring what students believe is the hardest part will give important insight and understanding on how students approach a learning activity such as simulation. Ask the question "What's the hardest part of …?" When we view difficulties through the eyes of our students, we can help them build directly relevant strategies to overcome specific difficulties.

From the Field

It's OK to Be Wrong

Affirm that knowing what we don't know and knowing when we're wrong is positive. If something doesn't go well, create a climate where it's OK to be wrong. When students implement procedures and things don't go well, be sure they know that they will be supported rather than penalized for sharing what they did poorly. The important thing for students to think about is "How can I make it better?" Communicate that the only way students can improve and do better next time is to discuss what they think went wrong. Genuinely let students know that you will offer some feedback, some guidance, and that that you want to hear about the times when things went wrong. Then go back in the trenches together and try again.

Adrienne Weare MN, Academic Coordinator, Centre for Nursing and Health Studies, Athabasca University, Athabasca, AB.

In sum, despite the variation in fidelity among simulation activities, their purpose is to provide opportunities for learners to feel safe practicing and developing their skills. Next, we discuss a sampling of additional technologies that clinical educators can use: virtual clinical labs, mobile technology and social media.

Virtual Clinical Labs

Virtual clinical labs, which also run from low to high fidelity, need to be included in any description of simulation. Licenses to use these programs are generally purchased by health care education programs and individual teachers cannot implement the programs without these licenses. Some online communities for health care practice are really story boards with pictures and discussion questions, such as The Neighbourhood. In Second life, you can find virtual clinical settings.

Technology can augment clinical experiences for students by allowing an entire group of students to feel that they are at the bedside in real time. Roving Robots such as Vgo can be operated from outside the patient room. They can record health professional, student or instructor interactions with a patient as

through a one-way mirror, but the technology can go along with the care giver from room to room. Vgo is not the same as video recording or using Skype because the robot is maneuverable from a distance and the educator can focus on what is needed at the moment. Situations can also be recorded for further review. Patient permission is clearly required for this type of activity but that does not need to be a roadblock. The Vgo is in use in hospital health education and can also be used for community practice education.

Creative Strategies

Visit a Virtual Clinical Lab

Find out whether the program in which you teach has access to any virtual clinical labs. If access is available, visit the lab and identify two or three cases or scenarios that have relevance to your clinical area. Create links between the virtual cases and real life cases in the clinical practice area.

Mobile Technology

Mobile technology that incorporates information, decision platforms and communication ability for expert advice is becoming ubiquitous in most health care practice. Unfortunately, cell phones are stigmatized in some areas of health profession education and practice. Concerns relate to disease transmission, privacy and inappropriate use, all of which apply to any technology and to health professionals themselves. Appropriate care and use of any technology is part of overall professional education and the responsibility of all practitioners.

Health care professionals are beginning to adopt hand held devices, particularly Smartphones, to replace textbooks and traditional references such as pocket formularies. Commercial software with mix and match selections of products is becoming popular. In one Canadian study assessing the self-efficacy of nursing faculty and students' use of mobile technology, results indicate that both faculty and students are highly confident in their use of mobile technology and are prepared to engage in mobile learning (Kenny, Van Neste-Kenny, Burton, Park & Qayyum, 2012). Professionals value having the information they need right at the point of care as they making critical decisions about patient care (Lamarche & Park, 2012). This textbook, downloaded on a Smartphone, is a clear example of everyday use of mobile technology. Possibilities for clinical teachers to connect with their students through Smartphone apps are limitless. Links to relevant resources or motivational messages could be just a text away.

Creative Strategies

To Text or Not to Text

Instructors may use texting as a method to communicate with students. One concern with texting is that messages may not be considered urgent. Students may believe that texts can just be ignored until an appropriate time. Another concern is with privacy. Both instructors and students must consent to sharing their phone numbers for this purpose. At the beginning of a clinical practicum, establish the ground rules for using (or not using) texting throughout the rotation.

Social Media

Social media refers to interactive Internet platforms in which users create, share and exchange information in online communities. Facebook®, Twitter®, Instagram® and LinkedIn® are well-known social media programs. Students use social media widely in their free time, particularly those who are younger (Tuominen, Stolt & Salminen, 2014). Social media platforms hold promise as important contemporary teaching tools in clinical education. Students have gained important insights from creating a professional presence on social media, blogging on clinical topics, contributing to Wikipedia, using wikis for collaborative group work, and sharing their presentations on SlideShare®, Slide Rocket®, Glogster® or Prezi® (Schmitt, Sims-Giddens & Booth, 2012). Some educators may have limited experience with social media platforms

but use of these platforms in higher education has been steadily increasing (Seaman & Tinti-Kane, 2013).

Note that although students may use social media platforms extensively, they may not understand professional nuances of privacy and ethics on those platforms (Grajales, Sheps, Ho, Novak-Lauscher & Eysenbach, 2014; Schmitt, Sims-Giddens & Booth, 2012; Thompson et al., 2011). Problems identified among health care learners include separating personal and professional identities (DeCamp, Koenig & Chisolm, 2013), posting photographs of interactions with identifiable patients (Thompson et al., 2011), and using informal or colloquial language (Killam, Carter & Graham, 2013). The Canadian Nurses Association provides guidance on the use of social media in their seminal publication *When private becomes public: The ethical challenges and opportunities of social media* (https://www.cna-aiic.ca/~/media/cna/page-content/pdf-en/ethics_in_practice_feb_2012_e.pdf?la=en).

Creative Strategies

Now That's Professional

Invite students to review online profiles of faculty members or professional staff members working in the clinical area in which they hope to practice after graduating. Have students identify one or two specific aspects of the profile they would like to emulate on their own present or future professional website.

Discuss what drew students to these aspects of the profile and why they stood out as professional. How did the author of the profile use (or not use) language and pictures intentionally and appropriately? What precautions were put in place to ensure privacy?

Teachers Need Support to Use Technology

Using technology can be challenging. Clinical teachers need support as they sort through all the options and possibilities available. Several tensions come with using new technologies in teaching. How do clinical educators, with years of practice and experience, find creative ways to capitalize on the new digital and networked technologies and simulated activities, particularly if they were not exposed to them in their own education? How do we come to terms with the idea that teachers may no longer be relevant, that students can do it all by themselves with the right technology because the classroom can be 'anywhere any time any how'?

Other tensions come from shifts in educational philosophies (chapter 2). Many institutions of higher education now espouse shifting away from a traditional liberal philosophy emphasizing transmissive or lecture/demonstration methods. Instead, many health care education programs are embracing a more constructivist approach in which teachers build on what students already know (Melrose, Park & Perry, 2013).

Connectivist approaches are also becoming popular, in which students recognize what they need to know, use the abundance of digital networks and resources to gather information, and then organize it in useful ways (Melrose, Park & Perry, 2013). Students and practitioners have long been expected to participate in collaborative projects and develop communities of practice (Lave & Wenger, 1991; Wenger, 1998; Wenger, McDermott, & Synder, 2002). Access to these communities is no longer restricted in time and place. Students can connect digitally with like-minded others from around the world at any time and in a variety of new ways. However, questions about credibility of sources used by students may not have straightforward answers.

In chapter 3 we discussed intergenerational learners, noting how individuals in their 20s and 30s (*Millenials*) and those born after 1995 (*Generation Zers*) have grown up with technology. Those in their 40s (*Generation Xers*) and in their middle years (*Baby Boomers*) may (or may not) be less comfortable with technology. For those less familiar and comfortable with digital innovations, the technology can be confusing and even annoying. If the pedagogical purpose of a program, app or simulation is not clear, educators must raise

questions about its use. Neither students nor teachers have time to spare on technologies just for the novelty of using them.

On a practical level, the administrative support for teachers to implement new technologies may be limited. Funding and release time for them to attend workshops and learn how to use equipment themselves may not be available (Goldsworthy, 2012; Jeffries, 2008). Most technologies, particularly those offering high-fidelity simulation experiences, are expensive and may be shared among different learning programs. Schedules may only provide minimum time for learner access to equipment (Garrett, MacPhee & Jackson, 2011). Space for critically important post-simulation discussion and debriefing may not be provided.

Jeffries (2008) used the acronym S.T.E.P. to propose a sequence of steps that can help create the support instructors need to confidently implement simulation activities.

S, for standardized material, suggests initiating and maintaining a repository of easily accessible materials about simulation for all educators.

T, for training the trainers, encourages health care faculties to promote education for instructors, for example designating a champion or individual with expertise to promote the simulation activities.

E, for understanding the importance of top-down encouragement. Teams can be developed to work on a plan for introducing simulation education for instructors. An orientation plan and guidelines need to be developed and shared.

P, for the planning itself, suggests ongoing collaborative activities such as forming an interest group for clinical teachers and any interested instructors.

Creative Strategies

Step Up for Simulation

Consider whether one, two or even all the strategies Jeffries (2008) suggests in her S.T.E.P. model might be useful to you.

S (**repository of standardized material**). Start a repository by collecting and then posting journal articles related to simulation on an inter-faculty website.

T (train the trainer). Consider the idea of championing simulation. Would you be interested in taking on this role? Could you co-create a champion role with another teacher interested in simulation?

E (top-down encouragement). How can you contribute to any orientation or guidelines about implementing simulation activities that already are, or should be, in place? Can you extend existing processes to be more team oriented?

P (Planning). If a simulation interest group is not in place in your training program, could you initiate one? Can you make links between program interest groups and national interest groups such as the CASN Simulation Interest Group?

Conclusion

In this chapter we discussed how technology can enhance clinical education. To achieve entry level competencies, students in the health professions must use technology. We provided an overview of common technologies, elaborating on simulation. We emphasized that the purpose of simulated activities is to provide safe environments where students can practice the skills they need to learn. Whether simulation

is a low-fidelity activity such as discussing a written case study or a high-fidelity activity such as operating a complex machine simulating a human function, students need supportive feedback throughout the activity. Establishing a climate where it's OK to be wrong is an essential element in any simulation activity. Time and space must be carved out at the end of a simulation to debrief and reflect critically on how the activity developed.

Virtual labs, mobile technologies and social media are additional technologies to enhance clinical teaching. As with the use of any new innovation, teachers themselves may need support in learning how to use the technology.

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CHAPTER SIX - EVALUATION OF LEARNING

"Ever tried. Ever failed. No matter. Try Again. Fail again. Fail better." —Samuel Beckett

Few topics have generated more impassioned discussions among educators of health professionals than evaluation of learning. In many clinical practice settings, instructors are required to apply evaluation tools that they have not designed themselves. On one hand, criticisms of standardized assessment techniques for required professional competencies and skill sets note the over-emphasis on reproducing facts by rote or implementing memorized procedures. On the other hand, teachers may find themselves filling out extensive and perhaps incomprehensible checklists of criteria intended to measure critical thinking. How can evaluation possibilities be created to advance required competencies with individuals in complex practice environments?

Expectations for learner achievements must be set out clearly before learning can be measured accurately. Within the clinical environment, the stakes are high for learners. Client safety cannot be compromised. Further, measurement considerations must not dominate the time educators might otherwise spend on creating meaningful instructional approaches. In his seminal *Learning to Teach in Higher Education*, Paul Ramsden (1992) establishes an important distinction between *deep* and *surface* learning. In his view, deep and meaningful learning occurs when assessment focuses on both what students need to learn and how educators can best teach them.

Understanding the complexities in evaluating students and our teaching is an ongoing process. Approaching the process collaboratively in ways that consistently involve learners as active participants, rather than passive recipients, can support their success and inspire our teaching. In this chapter we introduce the vocabulary of evaluation and discuss methods of evaluating students and evaluating teaching. We suggest creative evaluation strategies that teachers can use in a variety of different clinical practice settings.

Vocabulary of Evaluation

Educators may feel overwhelmed by measuring how learners create personal meaning and demonstrate understanding of the consensually validated knowledge they will need to practice competently in their field of health. Measuring the efficacy of our own teaching in relation to preparing learners to practice safely, ethically, and in accordance with entry to practice competencies is not straightforward either. However, whether we are seeking to appraise student learning or our own teaching, knowing the criteria for expected outcomes will help us understand what is being measured. Measurement, assessment, evaluation, feedback and grading are terms used in appraising student learning and our own teaching.

Measurement, Assessment and Evaluation

Measurement determines attributes of a physical object in relation to a standard instrument. For example, just as a thermometer measures temperature, standardized educational tests measure student performance. Reliable and valid measurement depends on the skilful use of appropriate and accurate instruments. In 1943, Douglas Scales was one of the first to argue against applying the principles of scientific measurement to the discipline of education.

> The kind of science which seeks only the simplest generalizations may depart rather far from flesh-and-blood reality, but the kind of science which can be applied in the everyday work of teachers, administrators, and counselors must recognize the great variety of factors entering into the practical conditions under which these persons do their work. Any notion of science which stems from a background of engineering concepts in which all significant variables can be readily identified, isolated, measured, and controlled is both inadequate and misleading. Education, in both its theory and its

practice, requires a new perspective in science whichscience that will enable it to deal with composite phenomena where physical science normally deals with highly specific, single factors. (Scales, 1943. p. 1)

One example of a standardized measurement tool is a required student evaluation form. Most health professions programs provide clinical instructors with evaluation forms that have been designed to measure learning outcomes in relation to course objectives. These forms provide standardization in that they are implemented with all students in a course. They often focus on competencies such as safety, making them relevant to all members of the profession (Walsh, Jairath, Paterson & Grandjean, 2010). However, clinical instructors using the forms may have little or no input into their construction and may not see clear links to their own practice setting.

Another example of a standardized measurement tool is a qualifying examination that all members of a profession must pass in order to practice. Similarly, skills competency checklists, rating scales, multiple choice tests and medication dosage calculation quizzes can provide standardized measurement. Again, clinical instructors may have limited input into design of these tools.

Assessment obtains information in relation to a complex objective, goal or outcome. While the kinds of standardized measurements noted above can all contribute to assessing student performance, additional information is necessary. Processes for assessment require inference about what individuals do in relation to what they know (Assessment, n.d.). For example, inferences can be drawn about how students are applying theory to practice from instructor observations of students implementing client care, from student self-assessments, and from peer assessments.

Evaluation makes judgments about value or worthiness in relation an objective, goal or outcome. Evaluation needs information from a variety of different sources and at different times. Evaluation of learners in clinical practice settings is considered subjective rather than objective (Emerson, 2007; Gaberson, Oermann & Shellenbarger, 2015; Gardner & Suplee, 2010; O'Connor, 2015).

Formative evaluation is continuous, diagnostic and focused on both what students are doing well and areas where they need to improve (Carnegie Mellon, n.d.). As the goal of formative evaluation is to improve future performance, a mark or grade is not usually included (Gaberson, Oermann & Scellenbarger, 2015; Marsh et al., 2005). Formative evaluations, sometimes referred to as mid-term evaluation, should precede final or summative evaluation.

Summative evaluation summarizes how students have or have not achieved the outcomes and competencies stipulated in course objectives (Carnegie Mellon, n.d.), and includes a mark or grade. Summative evaluation can be completed at mid-term or at end of term. Both formative and summative evaluation consider context. They can include measurement and assessment methods noted previously as well as staff observations, written work, presentations and a variety of other measures.

Whether the term measurement, assessment or evaluation is used, the outcome criteria or what is expected must be defined clearly and measured fairly. The process must be transparent and consistent. For all those who teach and learn in health care fields, succeeding or not succeeding has profound consequences.

Creative Strategies

The Experience of Being Judged

Clinical teachers measure (quantify), assess (infer) and evaluate (judge). Tune in to a time in your own learning or practice where your performance was measured. The experience of having others who are in positions of power over us make inferences and judgments about what we know can be both empowering and disempowering. Reflect on an occasion when you were evaluated. Did the evaluation offer a balanced view of your strengths and weaknesses? Did you find yourself focusing more on the weaknesses than on the strengths? How can our own experiences with being judged

help us be better teachers?

Students also bring with them experiences of being judged. One helpful strategy may be to have them share their best and worst evaluation experiences. Focus a discussion on the factors that made this their best or worst experience, to help learners reveal their fears. You can consider asking learners to draw a picture of their experience before they reflect and discuss.

Feedback

Feedback differs from assessment and evaluation. Assessment requires instructors to make inferences and evaluation requires them to make judgments. Feedback is non-judgmental and requires instructors to provide learners with information that facilitates improvement (Concordia University, n.d.). Feedback should focus on tasks rather than on individuals, it should be specific, and it should be directly linked to learners' personal goals (Archer, 2010).

Periodic, timely constructive feedback that recognizes both strengths and areas for improvement is perceived by students as encouraging and helpful in bolstering their confidence and independence (Bradshaw & Lowenstein, 2014). The tone of verbal or written feedback should always communicate respect for the student and for any work done. The feedback should be specific enough that students know what to do, but not so specific that the work is done for them (Brookhart, 2008).

Arthur Chickering and Zelda Gamson (1987, p. 1) identified seven seminal ***principles of good practice in undergraduate education***.

Encourages contact between students and faculty.
Develops reciprocity and cooperation among students.
Encourages active learning.
Gives prompt feedback.
Emphasizes time on task.
Communicates high expectations.
Respects diverse talents and ways of learning.

All these principles should be considered when providing feedback to students in the clinical area. Certainly "provides prompt feedback" is particularly relevant. If more time passes before you give feedback on learning experiences, you will find it more difficult to remember details and provide effective feedback (Gaberson, Oerman & Schellenbarger, 2015).

Including students' self-assessments when providing feedback is a critical element in the process. Throughout their careers, health professionals are encouraged to reflect on their own practice. This needed reflectivity can be developed by opening any feedback session with open-ended questions that invite learners to share their reflections and self-assessment. This strategy may soften perceptions of harshness associated with corrective feedback and may bring unexpected questions and issues into the discussion (Ramani & Krackov, 2012).

All too often feedback is viewed as educator-driven, with instructors assuming primary responsibility for initiating and directing a session. A more learner-centred approach encourages students to take a central role in the process and to seek out opportunities to gather feedback from instructors and others in the practice area (Rudland et al., 2013).

Creative Strategies

Beyond just 'Good Job' or 'Needs Work'

When offering feedback, try these five simple steps to go beyond just 'good job' or 'needs work.'

Affirm positive aspects of what a student has done well.

Explore the student's own understanding and feelings about the experience.
Pick up on any area the student identifies as needing work.
Identify any additional areas where the student needs to improve, including an explanation of *why* these are important.
Provide opportunity for the student to *reflect and respond* (in writing if possible) to the feedback.

Grading

Grading, whether with a numerical value, letter grade or pass/fail designation, indicates the degree of accomplishment achieved by a learner. Differentiating between *norm-referenced grading* and *criterion-referenced grading* is important. Norm-referenced grading evaluates student performance in comparison to other students in a group or program, determining whether the performance is better than, worse than or equivalent to that of other students (Gaberson, Oermann, & Shellenbarger, 2015). Criterion-referenced grading evaluates student performance in relation to predetermined criteria and does not consider the performance of other students (Gaberson, Oermann, & Shellenbarger, 2015).

Criterion-referenced grading reflects only individual accomplishment. If all the participants in a learning group demonstrate strong clinical skills, they all earn top grades. In contrast, a learner's grade in norm-referenced grading reflects accomplishment in relation to others in the group. Only a select few can earn top grades, most will receive mid-level grades, and at least some will receive failing grades. Norm-referenced grading is based on the symmetrical statistical model of a bell or normal distribution curve.

Advantages of norm-referenced grading include the opportunity to compare students in a particular location with national norms; to highlight assignments that are too difficult or too easy; and to monitor grade distributions such as too many students receiving high or over-inflated grades (Centre for the Study of Higher Education, 2002). The disadvantages of norm-referenced grading centre on the notion that one student's achievements, successes and even failure can depend unfairly on the performances of others. *Grade inflation*, an upward trend in grades awarded to students, has led many programs in the health disciplines to establish rigorous admission requirements and use a pass/fail grading approach.

Criterion-referenced grading judges student achievement against objective criteria outlined in course objectives and expected outcomes, without consideration for what other students have or have not achieved. The process is transparent and students can link their grades to their performance on predictable and set tasks (Centre for the Study of Higher Education, 2002). In turn, this approach can consider individual student learning needs and build in opportunities for remediation when needed (Winstrom, n.d.). One disadvantage of criterion-referenced grading is the need for more instructor time for grading. Also, awarding special recognition with prizes or scholarships to excelling students may not be as clear-cut when students are not compared to peers.

Creative Strategies

Can All Students be Above Average?

Consider the advantages and disadvantages of evaluation approaches that are *norm-referenced* (comparing students to other students) and *criterion-referenced* (comparing students to set criteria). Discuss with your students when comparing their achievements with others in the group can be useful and when evaluating performance only in relation to set criteria can be useful. How can clinical teachers incorporate ideas from both approaches into practice?

Methods of Evaluating Students

Professional expectations dictate that all health care practitioners must demonstrate prescribed

proficiencies. Assessing, evaluating, providing feedback and ultimately assigning a grade to students in clinical courses requires teachers to implement a variety of different evaluation methods. Going beyond measuring students' performance on standardized tests and checklists is essential. Here we discuss methods of evaluating students that invite collaboration, tap into what students know, and identify future learning needs.

Instructor Observation, Self-Assessment, Peer Assessment, Anecdotal Notes

Instructor observation is one of the most commonly implemented methods of evaluating students. Instructor observation, also referred to as clinical performance assessment, provides important information about contextual aspects of a learning situation (O'Connor, 2015). Knowing the context of why a student acted in a particular way can provide more complete understanding of behaviour. If a task was not completed on time, knowing that the student reasoned it was more important to stop and listen to clients' concerns can help instructors make inferences about students' strengths and weaknesses. And yet, anxiety surrounding the experience of being observed is well known to all of us. At what point is the stress of achieving course outcomes equivalent to the stress inherent in actual practice conditions? Does performance anxiety help or hinder evaluation?

Performance anxiety can be expected during instructor-observed activities (Cheung & Au, 2011; Weeks & Horan, 2013; Welsh, 2014). Instructional strategies that decrease performance anxiety include 1) demonstrating skills with supplemental return sessions in laboratory settings before students complete skills in clinical settings and 2) arranging opportunities for peers to observe and evaluate one another. Engaging students in non-evaluated discussion time can also help reduce their anxiety (Melrose & Shapiro, 1999). Further, inviting students to complete a self-assessment of any instructor-observed activity can help make the experience collaborative.

Self-assessment opportunities can be made available and acknowledged to help students develop critical awareness and reflexivity (Dearnley & Meddings, 2007). Self-assessment is a necessary skill for lifelong learning (Boud, 1995). Practitioners in self-regulating health professions are required to self-assess. When students become familiar with the process during their education, they enter their profession with a stronger capacity for assessing and developing needed competencies (Kajander-Unkuri et al., 2013).

Self-assessment can shed light on the incidental, surprise, or unexpected learning (chapter 3) that can occur beyond the intended goals and objectives of a clinical course. Pose questions such as "What surprised you when ...?" or "Talk about what happened that you didn't expect when ..." Encouraging students to identify and then discuss their incidental learning in individual ways helps build confidence.

A cautionary note: self-assessments can be flawed. The most common flaw is that people often overrate themselves, indicating inaccurately that they are above average (Davis et al., 2006; Dunning, Heath & Suls, 2004; Mort & Hansen, 2010; Pisklakov, Rimal & McGuirt, 2014). They may not accurately identify areas of weakness (Regehr & Ewa, 2006) and may overestimate their skills and performance (Baxter & Norman, 2011; Galbraith, Hawkins & Holmboe, 2008). Students who are least competent in other areas of study are least able to self-assess accurately (Austin & Gregory, 2007; Colthart et al., 2008). Despite the flaws of self-assessments, inviting students to actively contribute their perceptions of what they have learned and what they still do not know is a critical aspect of evaluation.

Peer assessment, where individuals of similar status evaluate the performance of their peers and provide feedback, can also help students develop a critical attitude towards their own and others' practice (Mass et al., 2014; Sluijsmans, Van Merriënboer, Brand-gruwel & Bastiaens, 2003). Advantages of peer assessment include opportunities for students to think more deeply about the activity being assessed, to gain insight into how others tackle similar problems, and to give and receive constructive criticism (Rush, Firth, Burke & Marks-Maran, 2012).

Disadvantages include peers having limited knowledge of a situation, showing bias towards their friends, and hesitating to award low marks for poor work because they fear offending peers (Rush, Firth, Burke & Marks-Maran, 2012). Personalities or learning styles may not be compatible among peers and students may feel they spend less individualized time with instructors when being reviewed by peers (Secomb, 2008). Instructors need to remain involved with any peer assessment activities in order to correct Inaccurate or insufficient peer feedback (Hodgson, Chan & Liu, 2014).

Peer and self-assessments often differ from clinical teachers' assessments, indicating that neither of these can substitute for teacher assessment (Mehrdad, Bigdeli & Ebrahimi, 2012). Even though peer assessments of students' clinical performance cannot be expected to provide a complete picture of students' strengths and areas needing improvement, they are a useful evaluation method and one that should be incorporated whenever possible. When students step into the role of evaluator, either for themselves or for others at a similar stage of learning, they gain a new perspective on the teaching role. This familiarity may help them feel they are actively participating in the evaluative process for themselves and others.

Anecdotal notes are the collections of information that instructors record, either by hand or electronically, to describe student performance in clinical practice (Hall, 2013). Notes are usually completed daily or weekly on all students and provide a snapshot of students' range of clients and skills. Instructors are expected to complete anecdotal notes after observing a student complete a client care procedure or report. Notes are also completed after incidents in which students have behaved in unusual or concerning ways such as difficulty completing previously learned skills, showing poor decision making, appearing unprepared, or behaving in an unprofessional manner (Gardner & Suplee, 2010).

Each individual anecdotal note should be completed as soon as possible after observing a student's performance or concerning incident and should only address that one performance or incident. Each note should include a description of the client and the required skills as well as objective observations of the student behaviours actually seen and heard by the instructor. Individual anecdotal notes are narrative accounts of an experience at one time point and should be shared with students (Gaberson, Oerman & Schellenbarger, 2015; O'Connor, 2015). Many instructors invite students to respond or add to anecdotal notes after students review the notes and reflect on the comments.

Cumulatively, individual anecdotal notes can be reviewed over time for patterns of behaviour useful in evaluating student progress and continued learning needs. Anecdotal notes should be retained after courses end, as disputes over clinical grades may occur (Heaslip & Scammel, 2012). Anecdotal notes need not just be descriptions of students' behaviour. They can and should also include the specific suggestions and guidance that teachers provide to support their students towards success.

Records of students' assignments should also be retained. These records can reflect how different opportunities were available to students to demonstrate required skills. They can illustrate the kinds of situations where students performed well and poorly. These records have also been used to defend instructors' decisions to fail students who assert that students were given overly difficult assignments (O'Connor, 2015).

Creative Strategies

Balancing Instructor, Student and Peer Assessments

Imagine creating three piles of documentation for each student in a clinical course. One pile contains instructor observations and anecdotal notes. The second pile contains student self-assessments and responses to their instructors' anecdotal notes. The third pile contains peer assessments of student work. Are the piles balanced and equal? Should they be? What, if any, additional opportunities could be built into your teaching practice to balance instructor, peer and self-assessments?

Learning Contracts

Adult educator Malcolm Knowles (1975, p. 130) explains that a learning contract is a "... means of reconciling the 'imposed' requirements from institutions and society with the learners' need to be self-directing. It enables them to blend these requirements in with their own personal goals and objectives, to choose ways of achieving them and the measure of their own progress toward achieving them." In other words, the goal of any learning contract is to promote learner self-direction, autonomy and independence. As Knowles emphasizes, learning contracts must include what is to be learned, how it will be learned, and how that learning will be evaluated.

As part of continuing competence requirements, most health professionals are expected to engage in self-directed learning activities. These demonstrate to regulatory bodies that health professionals can identify what they need to know, how they will learn it, and how they will evaluate their learning. Initiating learning contracts with students can help prepare them for this practice requirement.

Traditionally, learning contracts have been used mainly with low-performing students who are struggling to meet clinical objectives and standards or whose performance is perceived as unsafe (Frank & Scharff, 2013; Gregory, Guse, Dick, Davis & Russell, 2009). In these instances instructors must clearly identify the outcomes to be addressed and work collaboratively with students to determine the resources and assistance used to address the issues (Atherton, 2013). A contract must be signed by both instructor and student and both must document the progress made or not made after each clinical experience.

Extending the idea of learning contracts beyond struggling students is becoming more common. Learning contracts can be a teaching strategy that fosters motivation and independent learning in students in nursing (Chan & Wai-tong, 2000; Timmins, 2002), respiratory care (Rye, 2008), physiotherapy (Ramli, Joseph & Lee, 2013), and clinical psychology (Keary & Byrne, 2013). Although incorporating learning contracts for all students and not just those who struggle may initially seem time-consuming, the end result can be rewarding.

Creative Strategies

Model Self-Direction in a Learning Contract

Model the kind of self-direction that professionals need in everyday practice by creating your own learning contract. Think about one of your own learning needs. Write down what you need to learn, how you will learn it, and how you will evaluate the learning.

Keep the learning need simple, manageable and easy to understand. If your regulatory body requires you to use learning contracts or a similar process, use the language and protocols required by your profession. Share your contract with students early in the course and encourage them to support and critique your progress. If you are not comfortable with sharing your own learning contract, create one that illustrates how a member of your professional group might learn.

Create a Learning Contract Gallery

Students can learn from viewing learning contracts prepared by classmates or former students. Why not create an online gallery of effective learning contracts that students can browse through as they consider developing their own? They will see examples of elements of an effective learning contract as well as sample formats that could be adapted for their own personalized version.

Failure

In spite of clear objectives, thoughtful teaching strategies, and a supportive learning environment, some learners are simply not able to demonstrate the competencies required to pass a clinical course. The experience of failure can be devastating for all involved (Black, Curzio & Terry, 2014; Larocque & Luhanga, 2013).

The accepted norm within clinical teaching is that, at the beginning of any educational event, participants will be thoroughly informed about both the learning outcomes they are expected to achieve and specific institutional policies that apply when those objectives are not met. Similarly, learners must be informed promptly when an evaluator begins to notice problems with learners` progress. Typically, learners are informed of problems through collaborative formative evaluations and feedback, long before a final failing summative evaluation.

The daily anecdotal notes or records of learner actions mentioned above are essential throughout any evaluative process, but they become particularly important when a learner is in danger of failing. Most formative or mid-term evaluation instruments are designed to provide feedback on learning progress and

identify further work needed. Summative or final evaluations describe the extent to which learners have achieved course objectives. Thus, when a learner is not progressing satisfactorily, a prompt, documented learning contract or plan can be invaluable in identifying specific behaviours that the instructor and student agree to work on together. Instructors' supervisors must be informed about any students who are struggling or unsafe and they must be kept up to date throughout the process.

In some cases, learners may choose not to collaborate on a remedial learning contract or plan. Documenting student and instructor perceptions on this process is important as well. Providing students with information about institutional procedures for withdrawing from the learning event or appealing a final assessment is essential in demonstrating an open, fair and transparent evaluation process.

Given the emotionally charged nature of clinical failure, those involved in the process may not be able to immediately identify how the experience is one of positive growth and learning. In fact, having opportunities in place to talk and debrief may help both students and instructors. For university, college and technical institute students, counselling services are generally available through their institution. For instructors, both full-time continuing faculty and those employed on a contract or sessional basis, counselling services may be available from an employee assistance program.

Knowing that students may fail and that counselling services might help, you can distribute pamphlets outlining contact information for those counselling services to all students in the group at the beginning of the course. If the information is already at hand, referring an individual learner to the service when needed normalizes the suggestion. In some cases, without compromising confidentiality, actually accompanying an individual to a counselling appointment or walking with them into the counselling services area can begin to ease the devastation.

Failure to fail. Clinical instructors and preceptors can be reluctant to fail students. The term *failure to fail* (Duffy, 2003; 2004) is used to describe a growing trend towards passing students who do not meet course objectives and outcomes. In one study, "… 37% of mentors [preceptors] passed student nurses, despite concerns about competencies or attitude, or who felt they should fail." (Gainsbury, 2010)

One key reason clinical instructors *fail to fail* is lack of support (Black, Curzio & Terry, 2014; Bush, Schreiber & Oliver, 2013; Duffy, 2004; Gainsbury, 2010; Larocque & Luhanga, 2013). When universities overturn failure decisions on appeal and require detailed written evidence justifying an instructor's decision to fail, clinical instructors can feel as though they are not supported (Gainsbury, 2010). Further, as caring health professionals, instructors can feel that failing is an uncaring action (Scanlan, Care & Glessler, 2001). Many also fear that a student's failure will reflect badly on the instructor and that others will judge them as bad teachers (Gainsbury, 2010).

However, health professionals have a duty of care to protect the public from harm. When students whose practice is unsafe and who fail to meet required course outcomes are not assigned a failing grade, instructors must question whether they are neglecting their duty of care (Black, Curzio & Terry, 2014). The reputation of the professional program can be diminished as a result of failing to fail a student (Larocque & Luhanga, 2013). Viewing clinical failure in a positive light is difficult for both students and instructors. Learning from the experience is what counts. As Samuel Beckett wrote, *"Ever tried. Ever failed. No matter. Try Again. Fail again. Fail better"* (1983).

Creative Strategies

Fail Better

How can clinical instructors follow Samuel Beckett's sage advice and "fail better"? To begin, have a clear working knowledge of course outcomes. Next, maintain detailed documentation that gives an objective and balanced picture of student behaviours and agreed-upon strategies for improving these. Connect with any available support services for students and for instructors. Finally, consider the implications of failing to fail.

Methods of Evaluating Teaching

Clinical programs in the health professions usually stipulate specific assessment tools to be used to evaluate clinical teachers. Commonly, students are given anonymous questionnaires to complete at the end of their courses and supervisors complete standardized performance appraisals. Clinical instructors employed as full-time continuing faculty members may be involved in constructing these tools but sessional instructors or those employed on a contract basis are seldom consulted. While clinical instructors may have little control over the evaluation tools required by their program, performance appraisal documents are likely to include opportunities for self-assessment. Self-assessments can be framed as teaching portfolios. Collecting information from a variety of different assessment tools over a period of time is needed to construct accurate student evaluations and the same is true for instructor evaluation (Billings & Halstead, 2012).

Teaching Portfolios

Teaching portfolios, also called teaching dossiers or teaching profiles, are pieces of evidence collected over time and are used to highlight teaching strengths and accomplishments (Barrett, n.d.; Edgerton, Hutching & Quinlan, 2002; Seldin, 1997; Shulman, 1998). The collection of pieces of evidence can be paper based or electronic. Teaching portfolios can usually be integrated into self-assessment sections of performance appraisal requirements. No two teaching portfolios are alike and the content pieces can be arranged in creative and unique ways.

Portfolios usually begin with an explanation of the instructor's teaching philosophy. In chapter 2, we provided suggestions for crafting a personal teaching philosophy statement. When the purpose of a portfolio is to contribute self-assessment information to performance appraisals, goals should also be explained. Reflective inquiry is a critical element in any portfolio and reflections about teaching approaches that failed, as well as those that succeeded, should be included (Lyons, 2006). Both goals that have been accomplished and specific plans for accomplishing future goals should be noted. As clinical teachers must maintain competencies in their clinical practice and their teaching practice, another segment of the portfolio could list certifications earned; workshops, conferences or other educational events attended; papers written about clinical teaching in a course; and awards received.

Teaching products could constitute another segment, such as writing a case study about a typical client in your practice setting; developing a student orientation module for your students; crafting a student learning activity such as a game or puzzle; devising an innovative strategy to support a struggling student; or demonstrating a skill on video. Mementos such as thank-you messages from students, colleagues, agency staff or clients could also be included. Distinguish between pieces of content that can be made public and those that should be kept as private records. For example, a student learning activity might be made public by publishing it in a journal article or teaching website, while mementos would be private and would likely only be shared with supervisors.

If your program does not provide students with an opportunity to offer formative evaluation to instructors about how the course is going, create this opportunity. Rather than waiting for student feedback at the end of course, seek this feedback at mid-term. Provide a mechanism that is fully anonymous, for example an online survey, where students can comment on what is going well, what is not going well and what advice they would like to give their instructor. In your portfolio, discuss this formative feedback, your responses to the feedback and your evaluation of the process.

As the above examples illustrate, the possibilities for demonstrating instructional achievements are limitless. Each item in your portfolio should include a brief statement explaining why this piece of content is included and how it reflects a valid and authentic assessment of teaching achievements (Barrett, n.d.). Two other pieces of content commonly included in teaching portfolios are responses from student questionnaires and peer assessments.

Responses from student questionnaires. Students' assessments of their instructors' teaching effectiveness are most often collected through anonymous questionnaires at the end of the course. Anonymity is important as students can fear that rating their instructor poorly could affect their grade. Completing the questionnaire is optional and instructors must not be involved in administering or collecting

the questionnaires (Center for Teaching and Learning, n.d.).

Research indicates that instructors are more likely to receive higher ratings from students who are highly motivated and interested in the course content (Benton & Cashin, 2012). Although student ratings of their instructors yield valuable interpretations about an instructor's engagement of students and enthusiasm, students are not subject matter experts and therefore cannot evaluate the accuracy and depth of their instructor's knowledge (Oermann, 2015). In general, college students' ratings of their instructors tend to be more statistically reliable, valid and relatively free from bias than any other data used for instructor evaluation. They are, however, only one source of data and should be used in combination with other sources of information (Benton & Cashin, 2012). Including samples of responses from student questionnaires is expected in most teaching portfolios.

Peer assessments. If peer assessment of instructors is not usually part of your program, consider including peer assessments in your teaching portfolio. Acquire permission for peer assessment from both program and clinical site administrators. Peer observers can be other teachers in the program or staff at the clinical agency and should be provided with an evaluation instrument. For example, Chickering & Gamson's (1987) seven principles can guide peer observers in framing their feedback. Introduce the peer observer to students in the group and relevant agency staff members. Ensure students understand that the purpose of the observation is instructor evaluation, not student evaluation (Center for Teaching and Learning, n.d.).

Creative Strategies

What's in YOUR Teaching Portfolio?

If you have not done so already, initiate a teaching portfolio and keep adding to it throughout your teaching career. Visualize a large black artists' case that holds all the items that an artist would use to illustrate or sell work. For example, a portrait painter's case might contain a black and white sketch of a young girl, a full-colour family portrait, and a detailed replica of a classic piece. Each item would be individual, would have personal relevance to the artist, and would reflect the artist's skills. Similarly, your teaching portfolio will contain items that illustrate your individual interests and expertise. What's in YOUR teaching portfolio?

Conclusion

Evaluating our students and ourselves is a critical aspect of clinical teaching. In this chapter we discussed methods of evaluating students and methods of evaluating teaching. The process of evaluating students requires clinical teachers to make judgements about whether students are meeting objectives or not, based on information gathered and recorded throughout the course. Clinical teachers measure attributes of learning with standardized instruments and assess learning through inferences about how students are applying theory to practice, based on observation in different situations.

Meaningful evaluation goes beyond identifying students' progress in relation to course objectives and outcomes. Deep learning occurs when teachers provide their students with specific and individualized feedback. Students' own self-assessment of their strengths and plans for improvement should frame any feedback conversation. Ultimately, instructors must assign grades. Grades can be determined through a norm-referenced approach that compares students to other students or through a criterion-referenced approach that compares students to set criteria.

Clinical teachers can evaluate students using instructor observations, students' self-assessments and peer assessments. Daily anecdotal notes should be kept and shared with students, recording instructors' objective observations of each student's clinical performance. Learning contracts can be co-created with all students, although they have traditionally been used mainly with students whose practice is unsafe or who are not meeting course objectives.

Student failure is a devastating experience. All too often clinical teachers and preceptors *fail to fail* students whose practice is unsafe or who have not met course outcomes. Evaluating students requires that those involved consider the duty of care for all health professionals to protect the public from harm.

We also discussed methods of evaluating our own teaching. We suggested creating a teaching portfolio as a method of self-assessment. Teaching portfolios can include a statement of personal teaching philosophy, responses from student questionnaires, and peer assessments. They can showcase a variety of different achievements and reflections.

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CHAPTER SEVEN - PRECEPTORS: ESSENTIAL TO LEARNER SUCCESS

"While we teach, we learn" —Seneca

Precepting is an organized, evidence-based, outcome-driven approach to assuring competent practice (Eley, 2015). Clinical heath education often employees a preceptor model for senior practicum courses and frequently as part of orienting new employees. Through clinical experiences and orientation activities, learners acquire knowledge and essential skills for professional practice. The preceptor plays a vital role in developing students as professionals and a critical role in successfully integrating new staff.

For student learners, a representative from the student' institution is often part of the teaching–learning team along with the student and a preceptor who is an employee of the clinical agency. Each member of the trio usually has specific roles and responsibilities, with the faculty representative often supporting and advising the preceptor. While the preceptor has important roles in student evaluation, the faculty member usually makes critical decisions on final grades and on whether a learner passes or fails a practicum.

Being a preceptor for a student or new employee is an essential role but not one for which most preceptors are formally prepared. The short- and long-term success of the student or employee can be enhanced greatly by an excellent preceptor or affected negatively by a preceptor who is not well prepared for the role. The goal of this chapter is to provide readers with knowledge, skills and attitudes that are key to being an effective preceptor in the clinical setting. As with most careers, when you are well prepared and able to excel in a role, those you work with are positively affected. As you carry out your role well, your level of satisfaction with the role is also enhanced. This leads to a positive cycle with affirmative effects on all involved, including recipients of care.

This chapter discusses the difference between preceptoring and mentoring, examines the theoretical foundations of effective preceptoring, and presents strategies for becoming and being a successful preceptor. We conclude with a discussion of the preceptor–preceptee relationship. The strategies included provide a road map for practitioners who are new to precepting. The chapter is infused with practical creative ideas and founded on theory, making it both a stand-alone chapter for educators embarking on being a great preceptor and part of the greater understanding of becoming skilled as a clinical educator.

The Difference Between a Mentor and a Preceptor

The origin of the concept of *mentorship* is well documented. In Homer's Odyssey a Mentor, a wise and trusted friend of Odysseus, takes on the rearing of Odysseus' son in his absence (Roberts, 1999). The mentor is depicted as an older, wiser male who takes on the responsibility for a younger male's learning and development, acting rather like a guardian. The term *mentor* is traditionally associated with professions such as medicine, law and business, but it began appearing in nursing literature in the 1990s (Andrews & Wallis, 1999).

Much of the current mentor literature focuses on defining the concept, yet a precise and complete definition that is universally embraced remains elusive (Dawson, 2014; Gopee, 2011; Mentoring Resources, n.d.). To confuse it further, terms such as preceptor, coach and facilitator are used interchangeably in some instances. In jurisdictions such as Great Britain, practicing nurses who are responsible for students in the clinical area are called mentors, while in most North American jurisdictions, these supervising nurses are called preceptors. Commonly the term mentor is reserved for a longer-term personal development relationship between a less experienced and a more experienced person, with the focus of the relationship being assistance, befriending, guiding and advising (Eby, Rhodes & Allen, 2007). More concisely the mentor is less focused on assessment and supervision and more focused on the mentee's well-being and career advancement (Eby, Rhodes & Allen, 2007).

In contrast a preceptor–preceptee relationship is usually shorter term and the preceptor has responsibility for teaching and assessing clinical performance. In the base definition of preceptor, the focus of the preceptor's work is to uphold a *precept* or law or tradition. Myrick & Yonge (2005, p. 4) define a nursing preceptor as a skilled practitioner who oversees students in a clinical setting to facilitate practical experience with patients.

The roles of mentor and preceptor do overlap. For example, a preceptor who has no concern for the well-being of the preceptee is not likely to provide the learner with a positive clinical experience. Likewise a mentor who does not assess student practice will not have the information needed to be an effective mentor. The assessment in which a mentor engages is more likely to be formative in nature and focused on providing the mentor with knowledge to fulfill the role of guide effectively.

Students in practice-based health care professions rely on others to support, teach and supervise them in practice settings. The underlying rationale for this approach to learning is the belief that working alongside practitioners aids students to become safe caregivers who are successfully socialized to the clinical world (Benner, 1984). In this chapter we focus on the role of the preceptor.

Theoretical Foundations of Effective Preceptoring

Effective preceptoring of students in health care clinical environments can be understood by briefly examining adult learning theory, transformational learning theory, and the *novice to expert* model. Here we outline each theory or model and discuss each in relation to the preceptoring literature.

Adult Learning Theory

As described in chapter 1, Malcolm Knowles (1984) is credited with naming the theory of andragogy, a theory specifically for adult learning. Andragogy emphasizes how adult learners differ from child learners in being self-directed and taking responsibility for their learning decisions. Further, according to Knowles, adults want to know why they are learning something, need to learn experientially (including having the opportunity to make mistakes), use problem-solving to learn, and learn most effectively if they can apply what they learn immediately. Knowles states that adults learn best if their teacher is primarily a facilitator or resource person. Smith (2002) further discusses Knowles' andragogy theory, highlighting the ideas that a) learners move from being dependent to self-directed, b) learners accumulate a reservoir of experience and knowledge, and c) a learner's motivation to learn is internal. Given these principles of adult learning, teaching strategies such as simulations, role-play and case studies are considered useful. Likewise, clinical practicum learning opportunities with the student working alongside a preceptor are compatible with the principles of andragogy. Practicum students are directed by a more knowledgeable person (the preceptor) until they can accumulate experience and knowledge to be independent practitioners.

Sandlin, Wright & Clark (2013) further our understanding of Knowles' theory by additional focus on Knowles' beliefs that adult learners are autonomous, rational and capable of action, and on the assumption that autonomy and rationality are desirable and attainable in adult learners. Their perspective on Knowles' fundamental views provides an interesting contrast in considering the role of preceptor in the clinical environment. The tenets of Knowles' adult learning theory offer no substantive role for the preceptors who hold responsibility for overseeing, guiding and evaluating the work of the preceptee, as learners are thought to be totally autonomous and capable of independence. In contrast, as Sandlin, Wright & Clark (2013) propose, adult learners may actually be at various levels of autonomy and rationality and thus a skilled preceptor does have a role in adult learning.

Transformational Learning Theory

As explained in chapter 1, Jack Mezirow (1995) is credited with making significant contributions to the theory of transformative learning. The essence of this theory is that learners must engage in critical reflection on their experiences in order to transform their beliefs, attitudes and perspectives, which Mezirow terms their meaning schemes. Others have critiqued some of Mezirow's assumptions and views. Boyd & Myers (1988) note that learners must be open to changing their meaning schemes; to adopt new perspectives, they must realize that their old perspectives are no longer relevant. Dirkx, Mezirow & Cranton (2006) emphasize the self-actualization possibilities of transformative learning with the statement "learning

is life – not a preparation for it" (p. 123). They note the importance of a relationship between the learner and others, which is required to make sense of one's perspective and to become aware of (and transform to) new meanings.

To Mezirow, the essence of learning is change. To be truly transformational, learners must engage in inquiry, critical thinking and interaction with others. Brookfield (2000) adds that transformative learning must include a fundamental questioning of one's thinking and actions. Reflection alone does not result in transformative learning unless this reflection includes an analysis of taken-for-granted assumptions.

Part of the entry-to-practice competencies for health professionals include elements of critical reflection, adoption of professional values, beliefs and attitudes, and ongoing questioning of taken-for-granted assumptions and values. If Mezirow is correct that acquiring a competency does require the involvement of others, this becomes part of the role of the skilled preceptor. Preceptors may be well placed to encourage honest self-review and critical reflection that ends in learner transformation. In this view, preceptors need to be aware of strategies to engage learners in reflection, causing learners to gaze deeply into long- and deeply-held values and biases that they may not even be aware they hold.

The 'From Novice to Expert' Model

Benner's (1984) well-used and much respected *From Novice to Expert* model has implications for understanding the role of an effective preceptor for health care learners. While Benner focused on nursing students in the clinical setting, her theory likely applies to learners from other health care disciplines. This model holds that nurses develop skills over time from both education (including clinical experience) and personal experience. The model identifies five levels of nursing experience: novice, advanced beginner, competent, proficient and expert. Novices are beginners with no experience—they learn rule-governed tasks by being told and by following instructions. Advanced beginners have gained experience in actual nursing situations and recognize recurring elements that create principles they can use to guide actions. Competent nurses have more clinical experience and use it to become more efficient in providing care. Proficient nurses have an understanding of the bigger picture that improves decision making and allows for changes in plans as needed. Experts no longer need principles or rules to guide action—they use intuition to guide their flexible, highly proficient clinical approaches. As learners transition from novice to expert, they rely less on principles, they see a situation more holistically, and they engage in situations from the inside rather than being external to a situation.

Preceptors can play a vital role in this transition. Benner's model requires clinical experience for the transition to occur and guidance in the clinical situation is essential for successful transition. Preceptors need to have awareness of the needs of learners at various stages of the continuum and be attuned to the stage(s) at which their students are functioning. For example, a novice student needs a preceptor who provides more direct guidance in learning the rules to guide their actions. A preceptor for an advanced beginner helps learners recognize recurring patterns and develop them into principles of effective care.

Benner also comments that expert clinicians may not be the most effective in preceptoring roles. Expert clinicians may have difficulty explaining their actions in a step-by-step manner because they are functioning by intuition and may not be consciously aware of the rules and principles that they use to make clinical judgments. Analogous to riding a bike, beginners are very aware of the steps needed to balance the bike, propel it forward, stop momentum and avoid obstacles. An expert at cycling is able to just ride without thinking about *how* to ride and thus may have a challenge teaching a new cyclist.

Strategies for Being and Becoming a Successful Preceptor

This section focuses on strategies for being (and becoming) a successful preceptor for students from various health care professions in clinical learning environments. We also address the challenges and rewards of being a preceptor and characteristics of effective preceptors. The goal is to provide both new and established preceptors with new knowledge that can be used as a road map to beginning and continuing this journey with learners.

Challenges of Precepting

You are invited by your manager to be a preceptor. You are both honoured and terrified. If this is your first time formally in this role, you have a lot to learn. To begin, recognize that becoming a really good preceptor takes experience, just as becoming a competent (even expert) care provider takes experience. Reading this chapter and other resources will help. You may be fortunate that the agency you work for provides preceptor education. The first step is to determine what is available in the form of lectures, workshops, preceptor manuals, etc. and to engage with these before your preceptee arrives. You cannot possibly be fully prepared on day one no matter how much homework you do, so begin with a positive attitude and a sense that you are going to learn every day through reflection, experience and ongoing formal learning. Know that your apprehension is normal—with preparation, this apprehension can be lessened. With a positive approach, being a preceptor can be a fulfilling experience for you and a gift to a learner.

From the Field

Learning Together

I was delighted to be asked to be a preceptor! This would be my first time. I thought "Wow they think I am good enough to teach a new person—that's super!" My sense of excitement was soon drowned out by horror. What if I made a mistake? What if my student asked a question I couldn't answer? What if…? I didn't sleep a wink the night before our first shift together. I just did my best to have a positive attitude and kept reminding myself—my student and I will learn together.

Beth Perry Professor, Faculty of Health Disciplines, Athabasca University, Athabasca, AB.

Once you overcome the initial challenge of self-doubt about your ability to be a preceptor, you can become aware of some of the realities and challenges faced by preceptors. One important challenge is that preceptors must balance the needs of preceptees with the needs of patients they are caring for and the realities of the workplace. Patients may be seriously ill (or become seriously ill during a shift) and work environments may have high staff turnover and other challenges (Hallin & Danielson, 2009). As a preceptor you may feel torn between the needs of your patients and those of the preceptee. The reality is that patient safety always supersedes anything else. If you keep this in mind, you will know what to do. If you do have to make a choice and the preceptee's needs are not addressed at that point, explain the situation later to the learner and use it as a learning moment to help understand setting priorities.

All students are not going to succeed (at least not at first). You may have a learner who lacks appropriate knowledge, skills and attitudes to perform safe, competent (for their level) and ethical care in the clinical environment. You may be the only line of defense for the patient and your responsibility to, and advocacy for, the patient and society may become your priority. As Luhanga, Yonge & Myrick (2008) write, preceptors must be able to recognize and manage unsafe practice in students—preceptors are the "gatekeepers for the profession" (p. 214). If you have a learner who is disruptive and exhibits other problematic or unsafe behaviours, Luhanga, Yonge & Myrick (2008) provide strategies gathered from preceptors with experience in such situations. Their first recommendation is to catch unsafe practices early or even prevent them if possible. A key first step is giving the learner a complete orientation to the learning environment and establishing clear expectations. Preceptors need to make their own expectations clear, ask learners about their expectations, and understand the program expectations before the learning experience begins. Clear expectations, understood by all involved, can prevent issues and problems. One preceptor in the Luhanga, Yonge & Myrick (2008) study describes how she presents her expectations (p. 216).

> *I try to nip it in the bud pretty quickly so as to prevent it. Upfront, I tell students what I expect. Like, I expect you to know every med you give. I expect if you don't know something to ask me, we'll look it up. I don't expect you to know everything, so don't feel pressured.*

Actively involved preceptors often prevent problem behaviours and unsafe practices in learners by providing learners with demonstrations, chances to practice, cues, prompts and frequent feedback

throughout the learning experience (Hendrickson & Kleffner, 2002). Such active involvement of the preceptor, including close observation especially in the early days of the relationship, may give learners the best chance for success. As learners gain confidence and competence, preceptors may deliberately step back and encourage more independence within agency guidelines. However, that initial investment of time and energy by the preceptor can be crucial as learners stretch towards practicing at their full scope.

Preventing unsafe and disruptive behaviours is not always possible. If a learner is doing something that is jeopardizing the safety of another (or themselves) the preceptor must stop the behaviour immediately. Further actions (Luhanga, Yonge & Myrick, 2008) include:

communicating concerns directly to the learner, to determine whether the learner is aware of the problem
working with the learner to set up a detailed plan for improving performance
involving the faculty advisor, if the learner is a student.

Preparing preceptors for their role is important to the success of the preceptor–preceptee relationship. Ensuring preceptors are enthusiastic about being preceptors is essential. Careful preparation can fuel this enthusiasm and prepare the preceptor for positive outcomes from their preceptoring experience, encouraging them to continue in this role. Hallin & Danielson (2009) do note that in some clinical environments in which students are preceptored, turnover is high. Preceptors may be placed in the role before they have appropriate orientation, being appointed not because they are ready to be preceptors but because "now it is your turn." If you are asked to be a preceptor and do not, after careful reflection and self-assessment, feel safe in this role, then do discuss your concerns with your manager before agreeing. Again, the principle of patient safety over-rides all else.

Characteristics of Effective Preceptors

Research has been carried out on the qualities of effective preceptors in various health care disciplines. Effective preceptors in pharmacy have professional expertise, actively engage learners, create a positive learning environment, are collegial, and discuss career-related topics and concerns (Huggett, Warrier & Malo, 2008). Pharmacy students value preceptors who they perceive as role models, who are interested in teaching, relate to learners as individuals, are available to provide direction and feedback, and spend time with learners (Young, Vos, Cantrell & Shaw, 2014). Medical students note that effective preceptor behaviours include openness to questions, constructive feedback, enthusiasm, review of differential diagnoses, and delegation of patient responsibilities (Elnicki, Kolarik & Bardella, 2003). Nursing learners value experienced, knowledgeable professionals who guide them to think critically and create a supportive and nurturing environment (Phillips, 2006).

While these studies note slightly different emphasis on the characteristics of effective preceptors, some commonalities are clear. First, excellent preceptors want to be preceptors, or at least are able to be perceived as wanting this role. Students are attentive to the level of enthusiasm and support that preceptors bring to the relationship. Second, effective preceptors have expertise to share and share it willingly with learners. Learners appreciate preceptors who share their knowledge by involving learners in the learning process—preceptors who make learning interactive and two-way, challenging learners to think critically. Finally, we can note a theme of openness, collegiality, support, respect and nurturing. Students report learning best in a positive learning environment infused with these attitudes.

Creative Strategies

How to be Positive When You Don't Feel Very Positive

This could also be called the 'fake it until you make it' approach. You are human. You have days when you don't feel like being at work, let alone having a student with you. You have more than enough to do to get through the day and you just don't have one ounce of energy left over to answer another question!

When this happens, forgive yourself. Remember you do have limits. You can try for an attitude adjustment—give yourself a little lecture and start fresh. If that fails, just take one hour or even one

moment at a time and try to be a positive preceptor for just a short period. Fake your enthusiasm until, perhaps after one or two positive exchanges, your real enthusiasm may start to return.

Perry (2008) concludes that nurses who do their job very well come to know they are making a difference for patients (and in your case learners). This realization starts a positive cycle of feeling good about their work, trying even harder to do well, and feeling even better about their success in their role.

So on those days that you just don't want to be a preceptor, fake it until you can get this positive cycle started. The result may be a great day after all!

What Helps People be Better Preceptors?

You can use multiple strategies to become an outstanding preceptor. First, be sure you have the support you need to succeed. Being a preceptor can be stressful but you can be more effective if you receive support from faculty advisors, managers, colleagues and clinical educators on the unit (Yonge et al., 2002). Support can come in many forms, including formal education programs and workshops through your agency, opportunity to meet with faculty advisors to learn about their expectations of a preceptor, discussion with colleagues about how they enhance their success as a preceptor, or informal chats with clinical educators for teaching tips. You can identity the forms and sources of support most useful to your knowledge gaps. Do reflect on your needs and ask for the support you need to perform your role well.

A second important strategy is preparation. Less experienced preceptors may feel unprepared and unsure of their roles and responsibilities, which adds to the stress of the role. Hallin & Danielson (2009) recommend that, in addition to the preparation outlined earlier in this chapter, preceptors confirm that they have clear guidelines on expectations for their role and what students are allowed to do in clinical settings. In part to gain this knowledge and to learn the more subtle skills of being an effective preceptor, Hallin & Danielson (2009) suggest that inexperienced preceptors be preceptored by experienced preceptors. This requires team-preceptoring rather than initially being a single preceptor on your own and may be effective for some individuals. In particular, new preceptors must be specifically prepared for student evaluation, which can be idiosyncratic to each student's agency, complex and demanding.

Creative Strategies

Consider Forming a Preceptor Support Group

You can organize a group of preceptors in your agency for regular gatherings to share experiences, debrief problems and engage in professional development on being an exemplary preceptor. You may meet in person or online through Skype or another real-time meeting software.

Do set some guidelines for your group on requirements for participation, frequency of meeting, nature of discussions, etc. Just as in the learning environment you are creating with students, the group should be a positive, supportive, nurturing and engaging gathering. Confidentially will be an important consideration. Give your group a catchy name, like the Preceptor Partners or the Pre Ceptors, to instil a sense of togetherness and build group morale. Adding an element of food sharing or exercise (meet while you walk) can augment the group purpose.

The Preceptor–Preceptee Relationship

Being a preceptor is being a teacher. To succeed as a preceptor you need to be skilled both as a clinician and as an educator. Previous chapters offer numerous clinical teaching strategies that you can apply as a preceptor. Here is a brief overview of some educational strategies you might be able to incorporate into your role.

As a preceptor, developing an effective relationship with the learner is an essential starting point and critical to learning. The preceptor–preceptee relationship has potential to be more effective with mutual respect and a demonstration that the preceptor cares for the learner as a unique individual. A warm welcome is the first step. The tone of the first interaction with the preceptee is important to the success of the relationship. A smile and pleasant tone set the stage for a mutually satisfying respectful relationship and for optimum learning. If the initial contact is by telephone or email, a pleasant welcoming tone is equally important. Something as simple as remembering (and using) the names of learners demonstrates respect.

Beyond a personal welcome, the preceptor must take steps to help the preceptee feel part of the team by introducing the learner to other team members (Hilli, Salmu & Jonsén, 2014). An effective preceptor makes time for the learner to ask questions and become familiar with routines and the culture of the environment. Preceptees also need orientation to practical things like washroom location, what to do if they need to call in sick, break times, daily schedules, and the idiosyncrasies of each workplace.

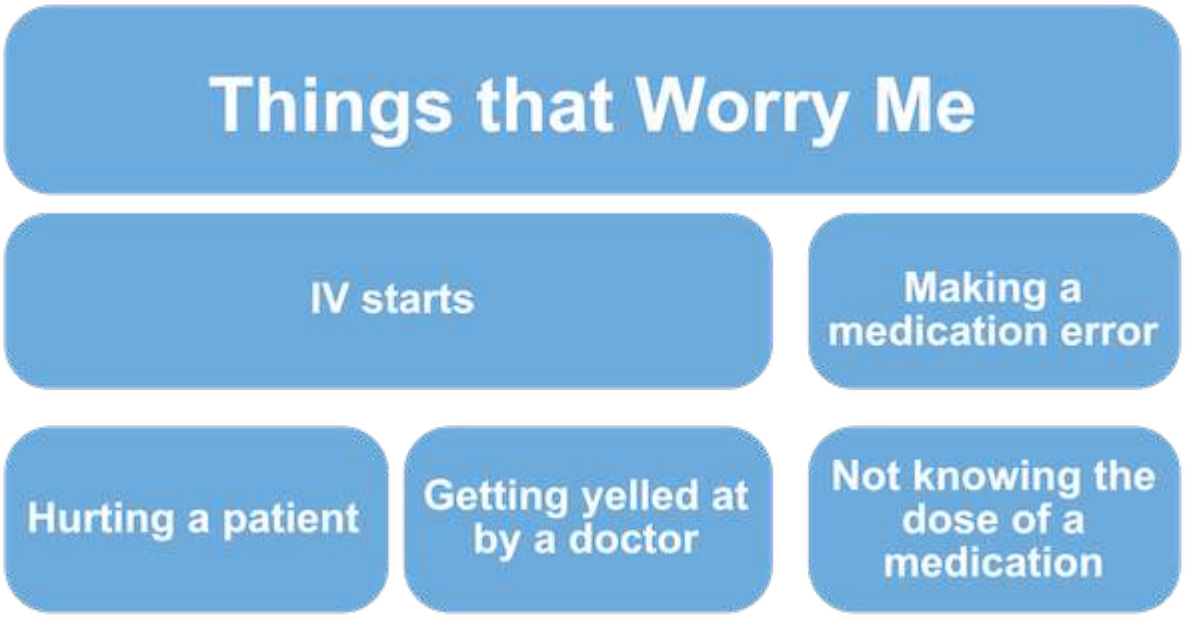
Trust is built over time. As a preceptor, your goal is to help the learner feel like a partner who evolves to function to the full extent of their skill and knowledge level over time. Preceptors can build trust by seeing preceptees as a valuable addition to the team, by being honest and saying “I don’t know” if they are not sure of the answer to a question, and by being open to new ideas introduced by the preceptee (Vancouver Coastal Health, 2006).

Kramer (1974) describes four stages of reality shock for new employee preceptees: honeymoon, shock, recovery and resolution. These stages are a normal part of learning. In the honeymoon phase preceptees are enthusiastic and full of energy that a good preceptor can harness and encourage. During the shock phase preceptees may become unmotivated and discouraged and struggle with self-doubt. The recovery and eventual resolution phases see a cautious optimism resolving into a positive outlook. Excellent preceptors are mindful that learners may be at any of these stages of reality shock during their time together. Being attentive to how learners are feeling and finding time to chat with them about what makes them anxious, excited or worried can help build a trusting relationship that poises the learner (and preceptor) for success.

Creative Strategies

Create a Worry Quilt

Sometimes people are reluctant or unable to share their worries with others, especially with a person in a position of perceived power such as a preceptor. Sensitive preceptors may notice a learner expressing anxiety in clinical situations. You can chat privately with the learner to encourage sharing of anxieties. One strategy that you could use prior to this chat is to have the learner create a worry quilt. You can ask the learner to create visual representations of things that worry them in the clinical situation. The learner places each worry on a quilt square and pieces them together into a quilt pattern. The quilt squares can be pieces of coloured paper or they can be virtual boxes. What the learner puts into the squares can be words or images. When the quilt is pieced together as a whole, you and the learner have a visual depiction of the learner’s major worries. Themes may become evident and lead to specific strategies for mitigating stressors. The constructed quilt may show that the learner is worrying about the same issue in different ways. Being able to address the worries expressed, or condense them into one issue that can be addressed, may help the learner move forward.



A Worry Quilt

A Strengths-Based Approach

Clinical instructors may encounter difficulties in their relationships with students through personality or value differences, or seemingly limited skills or interest on the part of learners (Cederbaum & Klusaritz, 2009). A strength-based approach focuses on learners' self-determination and strengths. This can be a useful strategy for preceptors encountering difficult relationships with learners (McCashen, 2005). In a strengths-based approach, the preceptor places emphasis on discovering, enhancing and promoting the interests, knowledge and goals of the learner. The preceptor facilitates self-discovery and clinical reflection, creating a learning environment with mutuality and respect and a focus on strengths over deficits. If a strengths-based approach is used effectively, learners feel empowered and affirmed. Some learners who are more familiar with a deficit model may feel uneasy at first if they expect a teacher-centred top-down teaching approach. The strengths perspective can provide an innovative framework for working with students, one that emphasizes student empowerment, collaborative learning and mutual growth (Cederbaum & Klusaritz, 2009).

How can preceptors enact a strengths-based approach? One strategy is to use a learning contract, as explained in chapter 6. This contract can be verbal or written, outlining by mutual agreement the roles and responsibilities of the preceptor and preceptee and emphasizing the mutuality of the learning experience. Another strategy is to express concerns positively and frame overcoming of problems as adding to existing strengths rather than overcoming deficiencies. Preceptors who embrace strengths-based approaches view the clinical situation from the perspective of the learner and try to create a positive learning space (Cederbaum & Klusaritz, 2009).

Creative Strategies

Catch Them Doing Something Right—And Tell Them

Being a preceptor is a challenge. Getting caught up in a spiral of finding weaknesses and trying to think of creative ways to address these is unfortunately too easy. If you focus on the positive, be sure to spend time and energy finding and praising the things that are done well. If you see something positive, tell the person right away and pause for a moment to relish the feelings of success.

Debriefing

Halfer (2007) calls debriefing a magnetic strategy for preceptoring learners. Preceptors can use debriefing as an intentional teaching strategy and an example of guided discovery learning. Usually debriefing is a short exchange that occurs between the preceptor and preceptee after a care experience. Ideally, debriefing occurs in a private and safe location away from others who are not involved in the experience (Wickers, 2010). Debriefing has four elements: reflection, rules, reinforcement and correction (Roberts, Williams, Kim & Dunnington, 2009). Initially a preceptee is invited to reflect on his or her performance, giving the preceptor an opportunity to gain insight into the learner's perspective. This reflection requires learners to gather their thoughts and share them, which is often a learning experience in itself. Next, the preceptor teaches general rules about the procedure, reinforces them, and corrects errant thinking expressed or demonstrated by the learner. Wickers (2010) emphasizes that "structuring a seemingly unstructured learning event is paramount to the effectiveness of the debriefing session" (p. 83) and reminds us that positive support is part of the successful debriefing model.

Reflective Practice

Preceptors can use the instructional strategy of *reflective time* to enhance consolidation of theory and practice (Duffy, 2009), encouraging students to reflect on their practice through guided reflection. Schon (1983) suggests that the capacity to reflect on action as part of engaging in a process of continuous learning is one of the defining characteristics of professional practice. Schon differentiates the capacity to reflect ***in*** action (while doing something) and ***on*** action (after you have done it). To elicit real reflection, the preceptor must ask appropriate questions that move the reflection beyond self-justification or self-indulgence. The desired result is learning, and perhaps behaviour change or enhanced skills proficiency.

Creative Strategies

Instant Replay Without a Camera

Consider using a sports approach to encourage reflection on action. The instant replay allows athletes to review the effectiveness of their actions by watching a video of the action. In a health care interaction the preceptor will not have a video camera in hand to provide this tool, but after the interaction the preceptor can invite the learner to replay (role play) the scenario—creating their own instant replay. Through acting out the interaction, learners will have a chance to reflect on action. After the replay the preceptor and learner can discuss what happened, lessons learned, and changes the learner would make the next time.

Educational Process: Assessment, Planning, Implementation, Evaluation

The educational process parallels the health care process with four stages or steps: assessment, planning, implementation and evaluation. Preceptors need to spend time assessing the learning needs, goals, strengths and limitations of each learner to be able to coach and guide the student to maximum learning. No two learners are the same and thus skilful assessment helps personalize the learning experiences that are facilitated by the preceptor. While assessment is quite important at the outset of the relationship, assessment is also an ongoing activity for preceptors.

Excellent assessment sets the stage for planning instructional opportunities to meet the knowledge and skill gaps identified for each learner. After learning strategies are implemented, evaluation by the learner in consultation with the preceptor determines if the knowledge and skill gaps have been addressed. If not, further specific learning activities need to be sought to continue addressing learning needs and goals. Each evaluation feeds back into assessment and the cycle continues.

The key to success in skilfully implementing this cycle is effective communication through building of excellent rapport between the preceptor and learner. Positive interpersonal relationships are the starting point for rich learning experiences in the clinical environment. A successful preceptorship requires honest and respectful interaction. particularly when the preceptor provides feedback or evaluation to the learner.

Creative Strategies

Talk Out Loud

One strategy for communicating clearly with preceptees is to talk to yourself! Talk out loud as you ask yourself how you are assessing patients, planning care, or implementing and evaluating the success of your intervention. Students benefit from hearing the preceptor's thought processes aloud (Smedley, Morey & Race, 2010). No extra time is needed to complete a task if you include the verbal commentary, yet hearing your thought processes provides learners with great learning—especially the auditory learners.

Rewards of Being a Preceptor

Although being a preceptor is challenging, and partly because it is challenging, many professionals experience the role as stimulating. The most desired and frequent rewards are often non-tangible. Rewards that preceptors rank highest are the ongoing learning a preceptor achieves, opportunities to share students' enthusiasm for learning, and fostering professional skills, attitudes and confidence in learners (Campbell & Hawkins, 2009).

In some cases more tangible rewards are provided, depending on the agency involved. Campbell & Hawkins (2009) give examples of preceptors who receive continuing education vouchers; verification of hours towards recertification; reduced price or free admission to museums, lectures, or cultural and sports events; certificates of appreciation; and opportunities to be part of research publications and presentations. Other institutions provide preceptors with paid time off or salary adjustments. As the competition for clinical placements and preceptors becomes more intense, considering some of these more tangible reward systems may be advantageous to clinical practice programs. If administrators and educators plan to offer tangible rewards for participation as preceptors, preceptors must be consulted on what they consider appropriate and valued rewards. Most preceptors are motivated intrinsically and by their values of altruism. They engage in this role because they have a strong desire to pass on their knowledge and skills to the next generation of caregivers.

Creative Strategies

Ideas for Preceptor Rewards

If you are an administrator or educator seeking ideas for rewards that preceptors may find appealing, here are some creative ideas you can consider.

- A plaque with a new inscription for each year a person is a preceptor
- Apprecigrams: Hand-written notes of thanks
- Introduction of preceptors at convocation
- Parking privileges
- Adjunct professor status
- Ask preceptors what they would find rewarding!

Conclusion

Simply put, preceptors are vital. They are charged with the pivotal responsibility of helping learners gain competency to deliver safe, autonomous, professional care. Preceptors have tremendous power to guide the development of professional practice and ultimately the success of learners in the health care professions.

This chapter offered an overview of the roles, challenges and rewards of being a preceptor. Several strategies were discussed to help preceptors excel. The foundational element of all instruction as a preceptor is building a strong relationship with the learner. A caring relationship founded on mutual respect and reciprocity is a prerequisite for a health learning environment. In such an environment learners can thrive and preceptors will be rewarded for devoting time and sharing knowledge, skills and professional insights.

Health care professionals have a responsibility as licensed professional health care team members to help others rise up to meet their potential (Eley, 2015). Preceptors have a responsibility to guide learners, to act as role models, and to lead others into the profession by preparing them to succeed (Hilli, Salmu & Jonsén, 2014). Being an exemplary preceptor can be as rewarding for the teacher as it is for the learner. It is not a role that can be taken lightly. Preparation, reflection on and in action, and continuous learning are fundamental to becoming and excelling as a preceptor.

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Author Information

Sherri Melrose PhD, RN

Associate Professor
Centre for Nursing and Health Studies
Athabasca University
http://cnhs.athabascau.ca/faculty/smelrose

Dr. Melrose has published widely on educating health professionals, facilitates a graduate course in clinical teaching and is a winner of the Canadian Association of Schools of Nursing Award for Excellence in Nursing Education.

Caroline Park PhD, RN

Professor
Centre for Nursing and Health Studies
Athabasca University
http://cnhs.athabascau.ca/faculty/cpark

Dr. Park is currently the Chair of Graduate Programs, has taught in a variety of nurse education settings and leads research projects related to technology enhanced clinical education and mobile learning.

Beth Perry PhD, RN

Professor
Centre for Nursing and Health Studies
Athabasca University
http://cnhs.athabascau.ca/faculty/bperry

Dr. Perry is an established author and is the principal investigator of a SSHRC-funded study exploring artistic pedagogical technologies. Beth is also a winner of the Canadian Association of Schools of Nursing Award for Excellence in Nursing Education.