Designing an on-line course on traumatic childbirth: Considerations for rural nurse educators

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Abstract

Designing educational courses for professional nurses is a complex and in-depth process that requires extensive research and planning. The purpose of this project is to explore the process of course development for an on-line course designed for rural nurses, entitled *Traumatic stress and childbirth: Promoting a safe workplace.* The aims of this project include making the pedagogical considerations of course design explicit and providing a range of learning activities and strategies that can be adapted for on-line learning. Rural nurses face unique professional and educational challenges related to accessing education that is relevant to isolated settings, having a wider scope of responsibilities than their urban counterparts, and the nature of uncertainty in rural nursing contexts. Theoretical influences that inform the design of this course include Barnett's (2012)) discussion on teaching for an uncertain future wherein he proposes a pedagogy of risk; and Garrison's (2011) Community of Inquiry framework, which is a constructivist model designed to maximize the benefits of on-line learning. Domains of knowledge, taxonomy, and constructivist alignment are incorporated into the design of learning outcomes, strategies, and assessments in order to involve the affective domain in providing meaningful, complex learning. Particular attention is paid to promoting comfort with uncertainty by engaging learners in such a way that they develop a *way of being* rather than teaching specific knowledge or skills.

A Personal Story

I remember a woman whose three month old son had just died of SIDS hesitantly walking into the trauma room where one of us was cradling her baby, and she said "I don't know what to do". A doctor, who had just led the unsuccessful attempt to save this infant, responded with anguish in his voice, "You're not supposed to know what to do". And while nothing could have made that moment better for her, I somehow knew that his response would help make the uncertainty of her near future easier to accept.

As a novice nurse educator, I notice that many of the identified learning needs for rural maternity nurses relate to promoting ways of being rather than teaching specific skills. Perhaps it is the nature of uncertainty in my maternity practice that draws me to this topic. Many of my rural colleagues share the dispositions described by Barnett (2012) that prepare us to face the kinds of uncertainty illustrated above. These include an 'ontological stance' or way of being that includes "carefulness, thoughtfulness, humility, criticality, receptiveness, resilience, courage and stillness" (Barnett, 2012, p. 75). These dispositions seem to help reconcile the unpredictable and painful experiences occurring in health care; how can we design learning that fosters ways of being alongside requisite nursing skills and capacities for rural nurses?

Designing an on-line course on traumatic childbirth: Considerations for rural nurse educators

Designing educational courses for professional nurses is a complex and in-depth endeavour that requires extensive research and planning. However, much of this background work remains invisible. The purpose of this project is to explore the process of course development in order to make it both explicit and transparent. As a new educator, I will be developing an on-line course entitled *Traumatic stress and childbirth: Promoting a safe workplace* and will use the preparatory steps of this course development as an example case. The aims of this project are twofold. First is to illustrate the pedagogical considerations in developing the above course. Second, is to provide practical resources including a range of learning activities and strategies that can be adapted by rural nurse educators for on-line learning.

Major goals of the *Traumatic stress and childbirth: Promoting a safe workplace* course will include increasing awareness of stress related disorders following traumatic childbirth for families and care providers, providing concrete solutions for supporting nurses during and after these events, and fostering comfort with uncertainty in nursing practice. By helping to safeguard the well-being of nurses, this course will also support the welfare of childbearing women and their infants. Another goal in designing this course is to focus on the unique professional and educational challenges for providers of rural childbirth services. Having worked as a bedside maternity nurse in a rural hospital for 21 years, I understand how rural contexts influence nurses' learning needs. Foremost are difficulties accessing education that is relevant to isolated settings; rural nurses also face a wider scope of responsibilities than their urban counterparts. Rural nurses have to be "multispecialists" (MacLeod, Lindsey, Ulrich, Fulton, & John., 2008). This requires confidence and the ability to make astute decisions (Miller et al., 2012; MacLeod et al., 2008). It also calls for "critical thinking, creativity, and a heavy dose of intuition" (Dowdle-Simmons,

2013, p. 108). Therefore, the design of the *Traumatic stress and childbirth: Promoting a safe workplace* course will focus on creating learning opportunities that cultivate both substantive content and attributes necessary for this way of being in rural nursing contexts.

Developing this course from beginning to end is beyond the scope of this project. Instead, this manuscript is structured around the questions of what, why, and how, of designing an on-line course on traumatic stress for rural maternity nurses. I begin with an introduction to instructional design followed by responses to these questions. *What* introduces the problems or gaps in knowledge, such as learning needs and challenges that are specific to rural nursing. This section explores on-line learning approaches to prepare learners to work in rural maternity settings. *Why* explains the need for the course, and why learners will benefit from developing a tolerance for uncertainty. *How* explores the ways that domains of learning and taxonomy can inform course design, how to incorporate learning in the affective domain into curricula, and how to design on-line learning experiences that help prepare nurses for a fast paced and diverse workplace.

Instructional Design

Instructional design is a complex process that may be more easily understood with a metaphor. There are many construction metaphors used in education, including curriculum blueprints, frameworks, scaffolding, and even the active construction of knowledge. So, I have chosen the metaphor of building a house to illustrate my understanding of this process. Instructional design begins after we have the blueprints, but before the actual construction begins. It is the planning that takes into account the materials, the proper tools, the knowledge, skills, and steps that are involved. There are a variety of ways to build and finish a house, depending on the philosophy of the builder, the building site, and available materials. Instructional design can also be approached in different ways, and many of the decisions about

how to follow the curriculum blueprint are decided by the educator. This is where instructors' assumptions about teaching and learning guide their choices of activities. What do we learn from looking at building plans, or constructing a wall with another carpenter, or from hitting our thumb with a hammer? It depends on the task and the intended learning.

Instructional design involves considering many questions. How do educators ensure that the foundation is strong, and that the stairs leading up to the next level will safely support the learner? How do students learn? How do educators measure whether the intended learning is occurring? And how can educators adjust the design when an assessment such as a quiz or critical questioning reveals that learning outcomes are not being achieved? Where does an educator begin? What follows are reponses to these questions when developing online courses beginning with the educator's (builder's) philosophy.

Philosophy of the Builder: Pedagogical Theory

There are two theoretical influences that inform the design of this on-line course on traumatic childbirth and this project overall. The first is Barnett's (2012) discussion on teaching for an uncertain future wherein he proposes a pedagogy of risk. Increasingly, educators are realizing that rather than perfecting techniques or memorizing content, learners need to develop ways to flourish in rapidly changing, complex health care settings (Candela, 2011). Barnett suggests that this endeavor encompasses two educational goals. One is to prepare learners to make decisions with incomplete knowledge, and to accept that there will be unintended consequences from their actions. The second is to encourage learners to prosper in an uncertain world; to cultivate their confidence to "have a go" (Barnett, 2012, p. 71). This approach to learning is ontological, because it is more about engaging learners in such a way that they develop "the human wherewithal to live with anxiety" (Barnett, 2012, p. 69) than it is about

teaching specific knowledge or skills. Barnett's (2012) approach encourages educators to put their trust in "pedagogy with the unknown built into it" (p. 76). Calling for curricula that promote risk, discomfort, and disclosure requires that educators seek out challenging, messy, learning experiences. However, many educators tend to avoid this type of learning because it can be emotional, unpredictable, and time consuming (Pierre & Oughton, 2007). Although our society is risk-averse in so many ways, Barnett highlights the risk involved in not taking risks. By making the case that learners require repeated exposure to ambiguous learning opportunities in order to develop a tolerance for uncertainty, Barnett provides educators with a compass that can orient students to a future in which they will be more comfortable with the unknown. This approach to teaching and learning can complement the complexity of practice in rural locales, and help prepare learners to navigate uncharted waters.

The second theoretical influence is Garrison's (2011) Community of Inquiry (CoI) framework, a constructivist model that is designed to maximize the benefits of on-line learning. While a major focus of the CoI framework is the relationship between teaching, cognitive, and social presences in on-line learning, this project is focused on how the unique text based medium in on-line learning contributes to deep and meaningful learning. In on-line discussions Garrison (2011) suggests "we listen by reading and talk by writing" (p. 85), two activities typically involved in private learning. Face to face discussions move at a faster pace, and tend to be dominated by quick thinking and confidant speakers. In contrast, the personal reflection involved in on-line conversations leads to the development of a slower wisdom.

One assumption underlying the CoI framework is that learning involves creating meaning from one's personal perspective, followed by collaboratively refining this understanding within a community of learners (Garrison, 2011, p. 10). The permanence of written postings in on-line

forums certainly promotes this way of learning, particularly when learner populations are diverse and share different perspectives (Garrison, 2011). Learners read and assimilate others' opinions privately, and then respond in a public forum. This ongoing process leads to the "inseparable and reciprocal" relationship (Garrison, 2011, p. 12) between critical thinking and public discourse in on-line learning. Garrison (2011) equates social (public) discourse with inquiry, which he describes as "the active search for meaning" (p. 22). Critical thinking is considered to be a fundamental aspect of inquiry that integrates the processes of "creative thinking, problem solving, intuition, and insight" (Garrison, 2011, p. 44).

I believe that the process of critical thinking as described above (Garrison, 2011) also contributes to the way of being within uncertainty described by Barnett (2012). These two theoretical approaches are complementary in the following ways. Barnett (2012) proposes a pedagogy of risk so that learners will be prepared to "launch themselves forth in a world that will furnish responses that cannot be entirely anticipated" (Barnett, 2012, p. 71). And, developing dispositions that contribute to critical thinking and assuming responsibility for one's learning (Garrison, 2011) will address the human need to "adapt and thrive in unknown, ambiguous situations" (Candela, p. 72). Therefore, in designing the *Traumatic stress and childbirth: Promoting a safe workplace* course I am guided by aspects of Garrison's Community of Inquiry framework to promote co-learning and shaped by Barnett's (2012) notion of educating towards 'a way of being' in the context of rural maternity nursing.

Literature Search

Once the overarching pedagogical theories were identified, the next step in designing this course involved conducting a literature search to identify learning needs for nurses in rural

settings, to understand the characteristics of the learners, and to delve into the ways in which rural contexts shape learning and nursing practice.

Need for On-line Childbirth Trauma Course

Understanding the context of the communities, local populations, and characteristics of the learners for whom this course will be designed can promote awareness of the need for this course (Keating, 2011). Foremost are the rural and geographic locations of learners. MacLeod and colleagues (2004) found that 41,502 or 18% of Canadian registered nurses worked in rural areas caring for 22% of Canada's population. Many authors have described ways in which isolated communities can be uniquely different from urban settings.

There are positive and negative aspects of living and working in rural locations. Positives include a unique sense of community, resourcefulness, and independence, while negatives include isolation, increased rates of chronic illness, poverty, decreased options for children's education and spousal employment (Seright, 2011; MacLeod et al., 2008; Medves & Davies, 2005). In small towns, drawbacks to professional life include minimal opportunities for professional advancement (Stroth, 2010), and increased demands related to limited equipment, personnel, mentorship opportunities, and lack of backup (Grzybowski, Kornelsen, & Cooper, 2007; MacKinnon, 2011). As well, the small populations, limited resources, and lack of nurses who hold advanced degrees, contribute to a lack of interest in evidence informed practice (Ireland et al., 2007; McCoy, 2009). The increased visibility that comes from working in small communities can also present challenges, because the lack of anonymity has been shown to contribute to rural practitioners moving away following tragic outcomes (Kornelsen & Gryzbowski, 2012; MacKinnon, 2011; McCoy, 2009). Many rural women live in poverty, which increases their chance of complications during pregnancy (Brown, Varcoe, & Calam, 2011). In British Columbia, many rural residents are also First Nations

and have historically been marginalized by colonial practices that continue today. Risk management strategies related to a lack of emergency backup (such as caesarean sections) can result in rural women being sent to urban centers to deliver, which increases social and financial stress for families (Brown et al., 2011). When faced with leaving her community, a woman's assessment of her risks may differ widely from that of her care providers (Brown et al., 2011). First Nations women with a deep spiritual connection to their community, or women fearing an overly medicalized birth may take risks "through acts of resistance and empowerment" (Brown et al., 2011, p. 111) by waiting to reveal they are in labor until it is too late to be transferred, or by having unattended homebirths (Kornelsen & Grzybowski, 2012). These choices can increase health risks for patients and create added stress for care providers who must manage the consequences of these decisions. Such divergent perspectives can create conflict between women and care providers (Kornelsen & Grzybowski, 2012). Perhaps unique solutions could be found if nurses in isolated settings could explore these issues with others who work in similar contexts.

Rural nurses have identified a need for networking opportunities to share resources and solve the challenge of promoting autonomy while integrating practice and learning (MacLeod et al., 2008). A CoI model could provide a framework for "regional learning circles" (p. 301), and be adapted to diverse contexts. Participants from different communities could take turns presenting their concerns or successes with specific practice challenges. This investment of time involved in facilitating a topic would increase learner commitment to the process (Garrison, 2011). As well, practicing nurses who have experienced benefits of this collaborative approach as students may be more receptive to participating in similar forums in their professional lives.

Is there a need for an on-line course on traumatic childbirth for rural nurses? Over 20% of Canada's population is cared for by nurses in rural communities where the isolation and limited

resources can compound the uncertainty inherent in childbirth for residents and nurses. And so, there is a clear requirement for education that targets the needs of these communities. Learners need to be mentored in searching for and evaluating literature that is relevant to their practice. Raising awareness about the effects of colonialism and patriarchal practices on childbearing women can increase understanding, thereby mitigating some of the tensions between patients and care providers (Brown, et al., 2011). I believe that exploring how care providers' experiences of traumatic events may influence their tolerance and subsequent assessment of risk could promote a more nuanced understanding of these issues. Highlighting the benefits and resourcefulness of close knit communities could enhance a sense of capacity. Finally, preparing nurses for rural practice could also help address challenges recruiting and retaining rural nurses (Dowdle-Simmons, 2013).

Learner Characteristics

The majority of rural nurses in Canada, as in other countries, have less formal education than their urban counterparts (MacLeod et al., 2008). Research suggests that rural nurses also tend to be less knowledgeable about evidence informed practice, and have fewer skills in retrieving electronic resources (Ireland et al., 2007; McCoy, 2009; Seright, 2011). The need to be multispecialists results in rural nurses being adaptable and resourceful, however this expanded role can be intimidating, especially for novice nurses (Dowdle-Simmons, 2013; MacLeod et al., 2008). Typically, these learners have decreased opportunities for continuing education related to limited personnel to provide coverage for staff attending courses, a lack of financial resources, and a dearth of experienced mentors (MacKinnon, 2010; McCoy, 2009). Accessing education off site creates financial and social costs of sacrificing time with family and friends (McCoy; 2009), while content designed for specialized urban hospitals may not be relevant for lower risk rural settings (McCoy, 2009; Place, MacLeod, John, Adamack, & Lindsey, 2011).

Rural nurses are eager for continuing education that is accessible and relevant to their practice. They would prefer face-to-face and mentored learning, but are open to a wide range of learning activities, particularly when offered locally (MacLeod et al., 2008; Miller, 2012). Because of a sense of 'we're all in this together', rural practitioners welcome opportunities for team building, including opportunities to practice infrequently experienced emergency scenarios (Ireland et al, 2007; MacKinnon, 2010). When working with a skeletal staff, people learn to depend on each other and help out whenever they can. In my experience, rural learners are motivated and appreciative of educational opportunities. Designing appropriate learning strategies could enhance collaboration and promote tolerance for uncertainty in these settings.

Rural Maternity Contexts

Workplace challenges faced by rural maternity nurses have been well documented, and are often influenced by tensions between competing priorities and inadequate resources, both of which can collide with the values and goals of nursing (Kay, 2013; MacKinnon, 2012). Hierarchical structures, workplace policies, and lack of staff can all impact the care nurses are able to provide, and with less nurses assigned to shifts, there are fewer voices to speak up about unsafe staffing levels. Obstetrical nursing requires a nurse to care for two patients, an unborn child and a mother. And yet, in rural hospitals there may only be one maternity nurse who is responsible for several other patients as well (MacKinnon, 2011; Medves & Davies, 2005).

MacKinnon (2011) explores the concept of nurses' safeguarding work which is based in nurses' goals of "keeping patients safe" (p. 119). She describes safeguarding as anticipating problems and being prepared, watching patients carefully and being vigilant, negotiating patients' safety, being able to act in emergencies, and mobilizing resources in urgent situations (MacKinnon, 2011). One factor that can tip the fine balance of nurses' safeguarding work

occurs when physicians' prefer to care for more acute patients locally, rather than arranging for them to be transported to another facility (MacKinnon, 2012). While this seems like a kindness for patients who would choose to remain in their community, it creates difficulties for nurses because higher acuity patients require closer observation than one nurse may be able to provide, particularly when s/he has responsibilities to other patients. These situations can be fraught with anxiety for the nurse, particularly when there are minimal casual nurses to call in to help if a patient arrives in labour. Unlike other professionals, nurses have "direct and … immediate knowledge" (Kalisch, Tschanen, & Lee, 2011, p. 127) of how the quality of their work affects their clients. This knowledge can contribute to feelings of guilt when personal limitations or workplace constraints negatively affect patients (Simmons, Peter, Hodnett, & Hall, 2013); and nurses' resilience can get stretched pretty thin from being on call and working overtime. In my experience, relationships between physicians and nurses can become strained at these times, particularly when nurses' concerns about safety are minimized, and the focus becomes nurses' unwillingness to provide care for these patients. This is troubling because cohesive teamwork has been found to be a significant aspect of rural nurses' job satisfaction, retention of rural nurses, and patient safety (MacKinnon, 2011; Medves & Davies, 2005). Collaborative practice between nurses and doctors also impacts medication errors and patient satisfaction with nursing care (LeBlanc, Schaufeli, Salanova, Llorens, & Nap., 2010).

Consequently, rural nurses could benefit from developing advocacy skills for both themselves and their patients. Nurses need to be aware of how discourses about efficiency can relate to increased workloads, poorer patient outcomes, and moral distress, (Kalisch et al., 2011 MacKinnon, 2012), and to be able to articulate why their concerns are important for patient safety. Strategies relating to teambuilding and multiprofessional collaboration could increase

understanding of others' roles (LeBlanc et al., 2010), while exploring relational practice would benefit nurses' relationships with their colleagues and the members of their communities.

In small towns, people have many connections to each other, both personal and professional. And these relationships also impact the childbirth experience for both families and care providers. This greater knowledge between nurses and patients can promote positive outcomes through a sense of optimism based on previous experience, or alternatively can heighten distrust. And while maternity practice in rural settings tends to be satisfying because low risk women are more likely to experience normal, happy births (Medves & Davies, 2005), the nature of childbirth is that a joyful outcome can never be guaranteed. And so, it would seem that rural nurses' close relationships with the people in their community may increase their vulnerability following traumatic deliveries, because when nurses have more empathy for their patients they can provide better support due to greater understanding but are at greater risk for personal harm (Gates & Gillespie, 2008). Nurses may also feel a greater sense of responsibility when caring for patients who may be their neighbours or friends (MacKinnon 2008).

Clearly, nurses could benefit from learning about their vulnerability when supporting others in traumatic events (Beck & Gable, 2012) and being knowledgeable about managing stress and identifying colleagues who may be struggling. What follows is a brief explanation outlining the importance of preparing nurses for stress reactions following traumatic deliveries.

Stress Disorders Following Childbirth

Childbirth is expected to be a happy event, but when it is not, the consequences can be devastating, leading to post traumatic stress disorders (PTSD's) in childbearing women and secondary traumatic stress disorders (STSD's) in nurses. Outcomes from PTSD may include challenges to young families related to depression in new mothers which can lead to "severe and

lasting effects" on women's relationships with their partners and children (Ayers, Eagle, & Waring, 2006, p. 389). Negative professional outcomes in nurses may include increased costs associated with attrition, increased absenteeism, and medical errors (Beck & Gable, 2012); and can affect nurses' personal lives through divorce, substance abuse, anxiety, and depression (Flarity, Gentry, & Mesnikoff, 2013). And, although minimal evidence exists about how STSD affects nurses' performance, there are concerns about potential safety risks to patients related to nurses' decreased productivity and compassion (Gates & Gillespie, 2008; Flarity et al., 2013). Why is decreased compassion a safety risk? A nurse suffering from compassion fatigue may be emotionally withdrawn, may lack empathy, or may be unable to "continue helping" (Flarity et al., 2013, p. 248). Ensuring the safe passage of mother and baby can be emotional, unpredictable work for the nurse (Beck & Gable, 2012). And nurses need to be prepared when women are in labour, because situations can change quickly (MacKinnon, 2011). But, what is it about childbirth that causes such uncertainty? This question will be explored next.

The Uncertainty of Practice

Recent research into the lived experiences of maternity nurses provides insight into the prevalence and nature of their suffering. Nurses described stressful situations in which they doubted the care they gave, felt their voices were not heard, or lacked knowledge about what to do (Beck & Gable, 2012; Goldbort et al., 2011). Not knowing what to do could include epistemological concerns related to knowledge acquisition or skill development, such as knowing and following the proper sequence when resuscitating a newborn. But it can also be an ontological dilemma about not knowing *how to be* during uncertain and difficult situations.

Giving birth is widely acknowledged to be unpredictable, with up to 30% of low risk pregnancies requiring medical care (Ireland et al., 2007), and half of newborn resuscitations

being unexpected (Miller, 2012). The timing and progression of labor is also difficult to predict. In rural hospitals, it can be unsettling to never know what might come through the door to tip the balance of providing safe care, an ever- present concern when working with a skeletal staff (MacKinnon, 2011; MacLeod et al., 2008). And, if it is a woman who may be in preterm labor, the transfer must be mobilized before active labor starts to avoid a delivery enroute. Otherwise, preterm infants are born and cared for in rural hospitals without the required technology and skilled personnel until the team arrives. In addition, bad weather or competing priorities can delay transport at a moment's notice (MacKinnon, 2011). At other times, a woman may travel to the tertiary care unit and her labor stops. Nevertheless, many 'high risk' patients do very well. Making decisions in these circumstances requires flexibility and acceptance of uncertainty, because rigid thinking does not work. It also requires teamwork, clear communication, and appreciation for the fears and concerns of childbearing women.

So, how can this knowledge of rural contexts inform a course design that is accessible and meaningful for remote nurses? Learners need to be prepared for the realities of rural practice, (minimal staff, the expanded scope of practice, colliding priorities, lack of mentorship and educational opportunities), the possibility that one's patient might be a neighbor, and the unpredictable nature of the weather, or who might walk through the door at any second. What follows are suggestions for the design of on-line learning outcomes, activities, and assessment strategies that could address the educational needs for nurses working in rural settings.

Developing Blueprints: Bringing It All Together

How does the knowledge gained from reviewing the literature about context, learning needs, stress, and uncertainty get incorporated in the course design? Garrison (2011) suggests working back from the desired learning outcomes (informed by the literature review) to ensure

that learning activities are aligned with the intended learning objectives, and that assessment strategies measure whether students are achieving the stated goals. Course alignment can be greatly enhanced by referring to taxonomy tables and considering the domains of learning. I will begin by reviewing the roles that taxonomy and domains of knowledge play in designing learning outcomes, activities, and assessments.

Returning to the construction analogy, taxonomy helps provide the blueprint of the house by determining the placement for the building blocks to ensure a strong foundation, the number of rooms and the purpose they will serve, how many stories or levels of learning, and where to put the windows to take advantage of a particular view. Continuing this metaphor, the dimensions of knowledge help determine what the foundation and framing will be made of, and the process involved in constructing them.

Domains of Knowledge

The influential work of Benjamin Bloom and colleagues in the mid 20th century describes three domains of knowledge that influence the process of learning (Candela, 2011). The cognitive domain involves knowledge development and decision making, while the affective domain deals with emotions, values, attitudes, and moral behaviours (Candela, 2011). The psychomotor domain typically involves learning physical and perceptual skills and expressive movements (Pierre & Oughton, 2007). Dividing learning into different domains can seem arbitrary, because most learning combines elements of more than one domain (Miller, 2010). However, categorizing learning into different domains can assist in defining what learners will need to do or experience for a given learning objective, followed by an activity that will involve the proper domain to reach the learning outcomes, and then determining an appropriate

assessment to measure the learning that has occurred. An educator's understanding of the process of learning influences the activities s/he chooses to meet the desired learning.

So, for instance, an activity focusing on the cognitive domain could be doing mathematical problems for drug calculations and then writing a test made up of similar but different problems. Affective learning might involve a small group discussion about traumatic situations that learners have read about or experienced and then sharing in the group how other peoples' perceptions influenced their thinking and why. A psychomotor activity might involve watching someone palpate a woman's abdomen to assess the position of the fetus, then palpating the fetal position for oneself, and, for advanced learning the learner may then be required to teach someone else how to determine the fetal position.

Many cognitive learning objectives and outcomes continue to dominate curricula, in part because 'content' is important (and valued) and in part because assessing knowledge acquisition can be more concrete than measuring outcomes relating to moral development and changes in attitude. (Birbeck & Andre, 2009). It is difficult to tease out the exact type of learning that will occur when emotions or ethics are involved. Even so, when objectives are clearly defined, it is easier to align activities and assessments to achieve learning outcomes. A taxonomy can help to define objectives, and will be discussed next.

Taxonomies

Taxonomy is a framework used to provide a common terminology with which to communicate learning intentions (Candela, 2011). Using taxonomies shifts the focus to what is learned by students rather than what is taught (Candela, 2011). In a taxonomy table, verbs are ordered within different domains of knowledge from simple to more complex learning. Educators identify desired learning outcomes, and then choose verbs from within the targeted

domain at the level of complexity to capture the specific learning tasks. This helps scaffold learning, as activities can be designed to build on previous learning and move students forward to more complex thinking and knowledge development (Garrison, 2011).

Verbs are often presented in a hierarchy from lower to higher levels of thinking. As Candela (2011) explains, cognitive verbs such as 'recall' or 'identify' describe more basic learning, as when learners are first introduced to a subject. As learners comprehend new information they can 'explain' or 'interpret', followed by 'applying' their knowledge to different situations. Analysis is a higher-level cognitive function that involves 'appraising', and considering relationships within the whole of a situation. And finally, 'evaluating' includes making judgments and critiquing alternatives, while the highest cognitive function of 'creating' entails putting disparate elements together in new ways and devising new solutions.

In the affective domain verbs also reflect a range of categories, beginning with 'receiving', then 'responding', 'valuing', 'organizing', and 'characterizing' (Candela, 2011). Receiving involves listening and acknowledging others' feelings, followed by responding through verbal or non-verbal interactions. Valuing requires making choices, differentiating, joining, and becoming committed to an ideal. Organizing entails examining one's values according to their importance, and characterizing occurs when values and beliefs become internalized (Candela, 2011). Some authors have noted the connection between the affective and cognitive domains as a way to develop both critical thinking and creative ways of being (Candela, 2011; Miller, 2010). And yet, scarce attention has been paid to affective learning in nursing education (Miller, 2010).

Miller (2010) suggests "the affective domain is part of the implicit curriculum" (p. 14), that which is taken-for-granted, and too many educators simply assume students will understand

professional behaviour without any guidance. However, problems with poor professional performance tend to be related to the affective domain (Miller, 2010), so it behooves educators to pay attention to this domain. Targeting affective learning by aligning outcomes, activities, and assessments is also reported to enhance the development of the attributes related to professional comportment (Birbeck & Andre, 2009; Miller, 2010). Clearly, professional nursing practice relies heavily on affective involvement (Miller, 2010).

In the psychomotor domain, verbs include 'perceiving', 'imitating', 'manipulating', 'operating', and 'performing'. As competence increases, learners become more competent and can modify and naturalize skills so that they become automatic (Candela, 2011). It seems the action of "operating" would also include accessing information technology and computer based learning.

Earlier taxonomies tended to focus on cognitive skills because of teacher and content driven pedagogies. However, with increasing awareness that "not every skill can be taught" (Candela, 2011, p. 72), more recent frameworks are less linear, more student focused, and target more creative and holistic ways of learning (Candela, 2011; Miller, 2010). Interestingly, there is general consensus in the literature about the lack of agreement vis-à-vis definitions, measurable outcomes, and assessment strategies of affective skills and critical thinking (Birbeck & Andre, 2009; Riddell, 2007). This ambiguity seems ironic and fitting, considering how important these learning outcomes are to our ability to succeed in an uncertain world. And so, this course design will incorporate both affective and cognitive learning strategies into a Community of Inquiry framework to prepare rural maternity nurses for an uncertain future. In the next section I will consider why outcomes for this course will require more holistic learning. But first, what are the desired outcomes for *Traumatic stress and childbirth: Promoting a safe workplace*?

Desired Outcomes

Desired outcomes identify the looked-for knowledge (cognitive), behaviour and attitudes (affective), and skills (psychomotor) that learners will have at the end of a course Examples of **cognitive learning outcomes** for an on-line course on traumatic stress and childbirth would include acquiring knowledge about signs and symptoms, risk factors, and aspects of the workplace that contribute to stress disorders. More complex cognitive tasks include retrieving and critiquing evidence, and risk management **Affective learning outcomes** are involved in the bulk of the learning outcomes in this course. Advocacy, self-care, collaborating with others, flexibility, acceptance of diversity, and communicating effectively all depend on feelings, values, and attitudes. **Psychomotor learning outcomes** are not present in any depth in an on-line course, although this domain would be involved in developing perceptual abilities while building technical literacy and navigating on-line course work.

To continue the construction metaphor, a learning outcome could be either the finished staircase, or the process of building the staircase. And, while outcomes that target a finished product can demonstrate what learners know about building a particular staircase, outcomes that focus on the process of building any staircase support learning for unexpected challenges that may surface along the way. Barnett (2012) contends that in an uncertain world, the importance of skills and knowledge recede and "matters of will, energy and being come into view" (p. 71).

In designing an on-line course on traumatic childbirth for rural nurses, many of the learning outcomes are ontological in nature, because they influence *how nurses are* as much as what nurses know. For instance, assessing risk requires the knowledge to identify dangerous signs and symptoms and to make decisions (cognitive), but managing risk also involves personal dispositions that influence how a person behaves in complex, emotional situations (affective).

Managing risk in rural settings may include reassuring those at risk, mobilizing resources (psychomotor), communicating effectively while respecting everyone's perspective, continually reassessing the situation, and maintaining a calm and confidant demeanour. This is an intricate skill set that requires involvement of all three domains. Many of the other learning outcomes, such as advocacy, stress management, collaborative teamwork, (as well as advanced psychomotor skills not covered in this course such as assisting in a birth, infant resuscitation, or managing a post partum hemorrhage) also involve complex learning in more than one domain.

So, how might educators design curricula that support the process of learning for rural practice? Designing learning objectives to achieve the complex learning outcomes outlined above requires challenging holistic tasks, in which cognitive and affective learning occur concurrently (Miller, 2010; Riddell, 2007). In the next section, I will explore how the choice of terms/verbs can guide the design of more complex learning objectives.

Learning Objectives

While learning outcomes describe the desired learning in a more global way, learning objectives (LO's) relate to the actual instruction (Candela, 2011). Learning objectives use terms to describe observable actions that learners will do, or how their thinking may change as a result of what they have learned. To use another building metaphor, LO's outline the steps involved in providing students with the knowledge and experience to build the staircase. There can be many steps involved in building a staircase, often from all three domains. For instance, one requires knowledge to use the proper tools and follow the correct sequence of steps, skills to take the right measurements and use the tools appropriately, and affective involvement in enjoying the task and taking pride in building a safe, aesthetically pleasing staircase. Some critics observe that learning objectives are prescriptive and behavioural (Candela, 2011), however, clearly written

objectives enhance course coherence and alignment (Birbeck & Andre, 2009). For instance, if an affective learning objective is to become more aware of the effects of PTSD on maternity nurses, a reasonable learning activity would be to expose learners to the phenomenon of PTSD by listening to nurses' stories of their experiences, followed by a discussion of how these stories may be similar or different to the learners' personal experiences. Critical thinking objectives could be incorporated by having learners discuss the underlying political or socioeconomic issues in these stories that may impact nursing care and how this may contribute to stress. Promoting comfort with uncertainty can be addressed by requiring learners to write a critically reflective narrative on how their actions in future ambiguous clinical situations could be informed by what they have learned through the process of participating in the learning activity.

Objectives to Foster Comfort with Uncertainty

Attention to the choice of terms used when designing learning objectives helps determine appropriate learning activities (Candela, 2011). Perhaps including risky language (described below) in the learning objectives could expose learners to uncertainty. Incorporating some of the language used in Barnett's (2012) proposed pedagogy could guide the learning plan. Disturbing activities might include; "disclose a personal challenge"; "reflect on a past situation that is haunting in some way"; or "write a haiku about an uncertain element in your practice". Other activities can require learners to describe an 'authentic' aspect of their practice, or to describe a situation in which they felt confident and why (Barnett, 2012).

Objectives for a Community of Inquiry

On-line-learning is well suited for meeting interdisciplinary teamwork objectives through collaborative group activities that promote discourse and critical exploration. Garrison's (2011) Practical Inquiry (PI) model (see appendix 3) could be a useful template for designing cognitive

learning objectives. This model is based on Dewey's phases of reflective thinking that include action, imagination, and deliberation. Learning objectives could be designed based on the four phases of the PI model, which include a triggering event, followed by exploration, integration, and resolution. Ensuring there was no clear solution for such activities would provide more authentic learning, and build tolerance for uncertainty. Garrison observes, "In good educational environments, as in real life, resolution is seldom fully achieved" (p. 47).

Now that the roles of taxonomy and domains of learning have been considered in relation to learning outcomes and objectives, the next step is designing teaching and learning strategies.

Teaching and Learning Strategies

In this project I will focus on the types of learning strategies that can be used in an on-line course to promote the kind of teamwork and comfort with uncertainty that is needed in rural practice. Barnett (2012) dismisses the paradoxical idea that "we can generate human being for uncertainty through a new kind of certainty in the curriculum" (p. 73). He suggests exposing learners to dilemmas, problems, and conflicting views, using metaphor to encourage our imaginations, and requiring self disclosure to promote open minded relationships between learners and teachers. Garrison (2011) encourages educators to take risks by avoiding rigid lesson plans, and to respond to the needs of students as they surface. Both authors encourage educators to set an example by being willing to take risks, to be open to new and different ideas, and to "introduce a creative element of uncertainty" (Garrison, 2011, p. 87) into the design of learning experiences. And so, I will provide some examples of authentic on-line learning activities, based on my experiences as a rural maternity nurse.

Introducing disturbing and self-disclosing activities involves the affective domain. It has been said that the gateway to learning is through the affective domain (Pierre & Oughton, 2007).

When teaching from this domain, educators can engage learners' emotions through surprise, humour, fun, confusion, and delight (Pierre & Oughton , 2006), and when learners are engaged, they learn at a higher level (Candela, 2011). So, what affective activities could be used in on-line learning? Role play is a traditional face to face approach to affective learning that could be adapted to on-line case study activities in which learners choose a role (perspective) that they would not normally experience in practice. Affective learning can also be incorporated into various aesthetic approaches to learning, which are briefly explored next.

Aesthetic Learning

Aesthetic approaches to learning involve "the expressive, creative, intuitive application of knowledge" (Leight, 2002, p. 108). Approaches I will include in this course are storytelling, imagery, and writing haiku poetry. Writing a haiku poem takes minutes, and involves writing a poem with 17 syllables (five on the first line, seven on the second, five on the third). Educators can post their haikus as an example, which involves some risk through self exposure. These poems can explore contextual aspects of practice that may be difficult to articulate because "poetic approaches evoke ways of knowing beyond the literal and the singular" (Bruce & Tschanz, 2013, p. 543). Another activity could include an internet search for images of key phrases, short YouTube videos, or other visuals to stimulate discussion. Tapping into aesthetic learning can provide a welcomed, fun alternative to difficult cognitive tasks and still provide complex learning. And of course, an effective learning strategy that should be in every educator's toolbox is metaphor, which will be discussed in greater detail next.

Metaphor

Barnett (2012) uses metaphors to illustrate his thoughts about teaching to uncertainty, because he considers imaginative thinking to be a "necessary condition" (p. 74) for engaging

students within a pedagogy of uncertainty. Metaphor is a powerful, often subliminal device that affects how we both understand and conceal meaning (Loads, 2010). Metaphor can help us gain insight from the margins of awareness when we slow down and explore hidden or forgotten intuitions and feelings influencing our perceptions (Loads, 2010). Using metaphor involves our imaginations and links to embodied, intuitive knowing (Hardin & Richardson, 2012). Learners could use metaphors to describe their embodied knowing, aspects of practice, or personal responses to difficult situations. For instance, here are two examples of metaphors found in the literature on traumatic deliveries; "all hands on deck" (Goldbort et al., 2011), and feeling like "a wounded, neglected animal" (Halperin et al., 2011, p. 391). Educators could invoke metaphors to illustrate difficult concepts, and to highlight how common metaphors and language can foreground certain perspectives. It is beyond the scope of this project to explore metaphor in any depth, but incorporating metaphor into teaching plans is an engaging learning strategy on many levels. Metaphors can also be woven into storytelling, as symbols of underlying themes.

Storytelling

Storytelling has a long and illustrious history. Stories are personal and compelling. They are therapeutic for the teller, engaging for the listener, and are effective for sharing intuitive and personal knowing, particularly as student diversity increases (Weston, 2012). Stories can also help care providers "to hear the hearts of the persons who come into our care" (Nisker, 2007, p. 107). Women tell their birth stories as a way to help make meaning of their experiences, and care providers do the same (Reed, 2011). And so, this approach would be very relevant for a course dealing with traumatic childbirth experiences. The First Nations' story telling tradition could be incorporated into activities exploring colonialism and the lived experience of rural inhabitants.

Digital storytelling could be used to great advantage in on-line learning environments to promote social presence (Lowenthal & Dunlap, 2010), and to incorporate "a language of self" (Barnett, 2012, p. 71). Video clips of personal experience can be powerful, forging connections between learners, while also counteracting the isolation of on-line learning. Learners could create electronic storytelling artifacts, such as a YouTube video, a prezi, or photo novella (Baker, 2012; Lowenthal & Dunlop, 2009), and reflect on how the knowledge gained from sharing each others' stories might impact their future practice. Stories also play a centre role in story based learning.

Story Based Learning

Story Based Learning is a case study approach to learning that helps with exploring ethical and cultural aspects of patient experiences (Young, 2007). When done in groups, these learning experiences promote teamwork and provide practical experience negotiating differences (Ireland et al., 2007). Considering the perspectives of the various 'players' in the story can raise awareness of other's roles. Stories based on actual case histories could be used to explore cultural or other circumstances that may be unique to particular regions (Dowdle-Simmons, 2013). This approach could also be used to explore various elements of uncertainty, such as unpredictable weather or waiting for the team to arrive.

Here is where a scaffolding metaphor can illustrate how an educator could help prepare the foundation for reading and critiquing research. This complex cognitive task could best be approached in stages to help sustain learners' interest while building knowledge of how to navigate search engines and access data bases. Encouraging learners to identify the topics they need to research would increase affective involvement by ensuring their motivation to learn (Young, 2007). The ASK model (Evans & Shreve, 2000) is a practical, easy to follow guide to building research retrieval skills for nurses in clinical settings.

On-line Discussion Postings

Fortuitously, the on-line environment lends itself to exposing learners to dilemmas and risk because, compared to a face to face class, asynchronous written dialogue is less intimidating (Garrison, 2011). Written postings also allow for the time to carefully craft what to say when disclosing personal feelings and experiences. Garrison (2011) warns against overloading learners with content, as this prevents the time needed for attaining higher order learning. Breaking the class into small discussion groups would support more thoughtful learning by allowing more time to reflect on classmates' postings. Meaningful group discussions and critical thinking can be encouraged through attention to critical questioning techniques. One learning activity can require learners to read an article on critical questioning and then pose a question for the group.

This section has explored some learning opportunities to explore the uncertainty and contextual challenges of rural maternity nursing. The following section will consider assessment approaches that highlight professional behavior and also providing further learning for students.

Assessment of Teaching and Learning

What kind of assessment strategies can educators use to assess learning and competency with 'a way of being' in the face of uncertainty? Assessment is often considered in relation to grades, passing a course, or proving one's competence through skills assessments. In academic classes, the choice of assessment sends a strong signal about what the teacher thinks is important, and so, students in these classes will devote their time to activities for which marks are assigned (Garrison, 2011). Educators, therefore have to choose their assessments wisely. In settings where learning is geared to practice rather than academia, assessment needs to be focused on practical issues that have authentic significance for the participants. I will explore strategies that could be used in an on-line academic course, although many of these are drawn from practice settings.

Collaborative Learning and Critical Thinking

This course will require assessment techniques that assess individual and collaborative critical thinking, and involve retrieving evidence and guidelines, as well as problem based learning. Discussion postings represent a significant part of the learning in a CoI, and so group participation needs to be rewarded in a students' overall grade. Using a Practical Inquiry template (appendix 3) can help learners identify the steps in the process of critical thinking, which could also benefit learners' future practice with problem solving. This model can also be used to evaluate the group process, including personal and group contribution. Writing scholarly papers or collaborating in group presentations can demonstrate learning, particularly if learning outcomes are embedded in assignment guidelines that outline how marks are determined.

Affective Learning

Birbeck and Andre (2009) contend that assessing affective learning must measure what learners do rather than what they know. And, when teaching to uncertainty, there is a need to assess how learners *are* in ambiguous, murky situations. These authors observe that cognitive skills are demonstrated when learners can do a task when asked, while affective learning is demonstrated when learners do a task when it is appropriate and ethical to do so. But, how can educators of on-line courses assess whether attributes have been internalized when there is no clinical component in which to observe learners' actions? Reflective journaling is a frequently used approach that is discussed further on. Another strategy could require learners to complete a Professional Responsibility Form (PRF) on a near miss or actual ethical dilemma they experienced. This is a practical assessment that aligns with professional practice standards (Birbeck & Andre, 2009), and requires learners to identify the compromised standard/s of

practice and include suggestions for ameliorating problems. Another strategy to assess affective learning is self assessment, which is explored next.

Self Assessment

Self assessment can be a key learning tool to help learners assume responsibility for their learning, and may promote attributes that benefit learners long after a course is completed. Individual participation within group assignments can also be assessed for ethical aspects relating to teamwork, motivation, carrying one's weight, and completing group work on time (Birbeck & Andre, 2009). Self assessment tools can even be tailored to the "lurkers" in a class (Garrsion, 2011, p. 31), so these less extraverted students who may not have posted to discussions can reflect on classmates' postings that had influenced their thinking and explain why. Self evaluation of personal and professional competencies is another approach that can have the added benefit of linking intended learning with professional practice standards and is an essential skill for reflective practice. This is explored further in the discussion on rubrics.

Rubrics

Birbeck and Andre (2009) observe that the affective domain is "significantly underdeveloped in terms of explicit outcomes and assessment strategies" (p. 42). Providing explicit expectations of implicit knowledge would help educators to measure learning, and could also educate learners about how they need *to be* in practical settings (Miller, 2010). This requires that expected professional behavior is clearly spelled out in learning and assessment activities for both educators and learners.

Rubrics can be used for this purpose. Garrison (2011) provides templates for rubrics that could be used to assess group learning, discussions, and reflective learning. As well as providing guidelines for postings and academic papers, rubrics could also provide guidance for practice.

Miller (2010) suggests that communication protocols could be developed as exemplars of what good communication looks like. For instance, an activity could include watching a videotape of a challenging situation, such as a nurse phoning a doctor in the middle of the night and trying to articulate concerns about a patient (MacKinnon, 2012). Learners could then use the rubric to assess the effectiveness of the communication. In this way, professional competencies could be broken down into smaller chunks of knowledge, and made explicit within the rubric. Another aspect of learning that can be assessed with rubrics is reflective learning.

Reflective Learning

As well as the many other benefits of reflection that have already been mentioned, reflective journaling can also help to critically explore and better understand traumatic events (Dowdle-Simmons, 2013), and could therefore be presented as an approach to help deal with STSD. Anecdotally, some nurses describe being turned off from working in obstetrics from one difficult experience as a student. Exploring these events in journals or group discussions may help learners to process difficult experiences and come to accept that there are positive and negative aspects in most human endeavours and particularly in nursing practice.

I have presented these learning and assessment strategies to be used in on-line courses to promote affective learning and facilitate learners' comfort with the uncertain nature of nursing practice. The planning that has gone in to preparing this construction site has hopefully ensured that *Traumatic stress and childbirth: Promoting a safe workplace* will create a stable structure, built upon a solid foundation, with the flexibility and resilience to withstand the earthquakes that may come.

The Proposed Link to Nursing Practice, Education and Research

This project exploring on-line course development of traumatic childbirth for rural nurses has the potential to contribute to advanced practice nursing in several ways. Enhanced awareness of traumatic stress and strategies for self care can provide protective support for nurses and young families (Alder, Stadlmayr, Tschudin & Bitzer, 2006: Ayers, 2007; Gates & Gillespie, 2008). Endorsing workplace policies and education that contribute to emotional health and effective teamwork could create a positive spiral (LeBlanc et al. 2010) in which everyone benefits. These benefits could also extend to retaining and recruiting nurses in underserved communities. As well as accommodating rural nurses' challenges with accessing relevant education, this course design could also inspire Communities of Inquiry for rural practitioners, and promote the creation of local knowledge. And, although the focus has been on rural maternity contexts, the knowledge gained from this project could also be used by nurse educators working in other settings, designers of distance programs for continuing education, specialty nursing programs, and undergraduate nursing courses. Publishing this work is an important way to disseminate this information. I intend to submit this paper to *The Journal of Continuing Education in Nursing.*

In summary, this project has been informed by various theoretical influences I have been exposed to during the process of working towards a graduate degree in nursing education, including the experience of facilitating my first on-line course for a perinatal specialty program while completing this project. I am looking forward to designing this on-line course, *Traumatic stress and childbirth: Promoting a safe workplace* with the help of the instruction design team at the British Columbia Institute of Technology.

Appendix 1 – Course Overview

This course as I envision it would be composed of six modules:

- Introduction to Rural Maternity Practice
- Traumatic Stress and Childbirth
- Patient Centered Care
- The Workplace: Ethics, Discourse, and Advocacy
- Interprofessional Practice
- Stress Management

Learning strategies adapted from Barnett (2012) include exposing learners to:

- dilemmas
- problems
- conflicting views
- using metaphor to encourage our imaginations
- self disclosure for open minded relationships between learners and teachers

I am suggesting a generic list of required learning activities, and learners can choose the activity and resources they wish to complete for each module, so long as each type of activity is completed during the course This will increase diversity in group discussions and create greater learning because a variety of learning activities will be shared within the groups for each module. Independent study can cover the less complex cognitive learning (such as learning about signs, symptoms and risk factors relating to stress disorders) so that group activities can take advantage of the social creation of knowledge. Depending on the length of the course, more time consuming activites such as writing academic papers could be incorporated.

Suggested learning activities could include:

- Select a metaphor and explain why you chose it
- Write a haiku poem
- Disclose a personal challenge
- Reflect on a past situation that is haunting
- Search the internet for images of a term (language) or concept that symbolizes some difficulty in in practice
- Listen to or tell a story about uncertainty

- Describe an authentic aspect of practice
- Describe a situation in which you felt confident and explain why
- Participate in respectful disagreement with a classmate
- Participate in a story based case approach to learning
- Contribute to collaborative learning through on-line discussions
- Apply the Practical Inquiry model to a small group activity
- Enhance knowledge of technology and access to evidence based information
- Consider a feminist, critical, social perspective of women's knowledge and experiences of traumatic childbirth
- Pose a critical question to classmates about a topic covered in this course
- Write reflective postings in response to classmates' work
- Write an academic paper on your choice of specified topics

Assessment strategies would be tailored to learners' choice of activities. In this way, one student may complete a PRF on an ethical aspect of their practice, while another learner might choose a breakdown in communication that led to a medication error.

Suggested assessment strategies could include:

- Group participation, with rubric to outline expectations, such as length, creativity, respectful, well written
- Practical Inquiry model to assess critical thinking process in group or individual work
- Reflective journal
- Required number of on-line discussion postings
- Complete a Professional Responsibility Form (PRF)
- Complete on on-line literature search for 3 to 5 articles and/or relevant websites
- Self-assessment of individual learning
- Peer evaluation of group and individual participation in group project
- Self-assessment (Likert scale) of personal comfort with uncertainty

Appendix 2 – Learning Activities

The table below is organized around the proposed modules for the course, *Traumatic stress and childbirth: Promoting a safe workplace.* This table provides an overview of the learning outcomes for each of the six modules, some examples of learning activities and assessment strategies that reflect my understanding of Barnett's suggestions for teaching to uncertainty, and a list of some academic and internet resources to supplement the activities. The targeted domains of knowledge will be indicated in the table as follows; cognitive (C), affective (A), psychomotor (P) and teaching to uncertainty (U).

Modules Overview of Outcomes	Student Learning Activities	Asssessment
Module 1 Course Introduction Outcomes for this module are related to increasing awareness of the nature of rural maternity nursing, the prevalence of uncertainty in nursing practice, and introduction of the Practical Inquiry model. Outcomes for *each* module include using risky language, disclosure, and discussing disturbing content, as well as engaging learners in accessing web based resources and gaining comfort with technology	Learners will identify learning need(s) they would like to address related to increasing comfort with technology during this course (P) After watching YouTube videos on metaphor and reading chosen articles and facilitator's examples (C, A), learners will: Write about an uncertain element in their practice and include a metaphor with a brief explanation (A. U) Search the internet for an image, story, article be sure to include a credit for your source (A, P)	Post a reflective - on-line comment in response to a classmate's postings/metaphor There will be a final mark based on a rubric outlining expectations of participation in on-line discussions
Readings: -Medves, J. & Davies, B. (2005). Sustaining rural maternity care – Don't forget the RN's. *Canadian Journal of Rural Medicine, 10 (1),* 29-35. -MacKinnon, K. (2010). Learning maternity: the experiences of rural nurses. *Canadian Journal of Nursing Research, 42 (1),* 38 -55. -MacLeod, M.L., Kulig, J. C., Stewart, N. J., Pitblado, J. Rl, & Knock, M. (2004). The nature of nursing practice in rural and remote Canada: This three-year ongoing study is already revealing		

<table>
<tr><td colspan="3">that nursing in rural and remote Canada is complex and deserves formal recognition as well as financial and educational support. The Canadian Nurse, 100(6), 27 -31.
-Practical Inquiry template

Internet resources:
http://www.youtube.com/watch?v=S_CWBjyIERY
http://www.youtube.com/watch?v=A0edKgL9EgM
http://www.youtube.com/watch?v=eFgRj-5d5Ac</td></tr>
<tr><td>Module 2
Traumatic Stress Disorders

Outcomes for this module are related to increased awareness and understanding of signs and symptoms, risk factors, other contributing causes of traumatic stress and difficult childbirth experiences

Outcomes relating to uncertainty could include considerations of the nature of childbirth, pain, tragedy, the weather, lack of exposure to rarely experienced emergency situations</td><td>After reading the assigned articles (C), learners will:

Participate in discussions about the effects of stress disorders on maternity nurses (C, A)

Search internet for examples of haikus (P)

Pick one of the topics and write a haiku, and include a brief explanation (A) or write a haiku using at least one risky, disturbing word (U)</td><td>Self Assessment of individual learning, auch as a reflection on the knowledge gained, change in perspective and how this might impact future practice

Post into the discussion in 250 words or less about something that was significant to you and explain why.

Final mark based on rubric outlining expectations of participation in on-line discussions</td></tr>
<tr><td colspan="3">Readings:
-Alder, J., Stadlmayr, W., Tschudin, S., & Bitzer, J. (2006). Post-traumatic symptoms after childbirth: What should we offer? Journal of Psychosomatic Obstetrics & Gynecology, 27(2): 107–112. doi: 10.1080/01674820600714632
-Ayers, S. (2007). Thoughts and emotions during traumatic birth: A qualitative study. Birth, 34 (3), 253-263.
-Ayers, S., Eagle, A., & Waring, H. (2006). The effects of childbirth-related post-traumatic stress disorder on women and their relationships: A qualitative study. Psychology, Health, and Medicine, 11(4), 389 -398, doi: 10.1080/13548500600708409
-Beck, C., & Gable, R. (2012). A mixed methods study of secondary traumatic stress in labor and delivery nurses. Journal of Gynecologic, Obstetric, and Neonatal Nursing, 41, 747-760. Doi: 10.1111/j.1552-6909.2012.01386.x
-Bruce, A., & Tschanz, C. (2013). Poetic forms: Shaping aesthetic knowing. The Journal of Nursing Education, 52(9), 543-544. doi:10.3928/01484834-20130822-12
-Gates, D., & Gillespie, G. (2008). Secondary traumatic stress in nurses who care for traumatized women. Journal of Gynecologic, Obstetric, and Neonatal Nursing, 37, 243-249. Doi: 10.1111/j.1552-6909.2008.00228.x
-Goldbort, J., Knepp, A., Mueller, C., & Pyron, M. (2011). Intrapartum nurses' lived experience in a traumatic birth process. Maternal Child Nursing, 36 (6), 373- 380. Doi:</td></tr>
</table>

<table>
<tr><td colspan="3">10.1079/NMC.0b013e31822de535.
-Tatano Beck, C. (2013). The obstetric nightmare of shoulder dystocia: A tale from two perspectives. The American Journal Of Maternal Child Nursing, 38(1), 34-40. doi:10.1097/NMC.0b013e3182623e71

Internet resources:
http://www.wikihow.com/Write-a-Haiku-Poem</td></tr>
<tr><td>Module 3
Patient Centered Care

Outcomes for this module are related to exploring concepts such as relational practice, women’s knowledge; storytelling, and using a critical feminist lens to consider benefits and challenges related to providing patient centered care for childbearing women, including awareness of factors that affect nurses responsiveness to patients’ needs,
.</td><td>After reading the assigned articles (C), learners will:

Write, read, watch, or design a story that describes patients or personal experiences of childbirth in hospital settings (C, A, U, P)

Distinguish between patient centered and provider directed care (C) and discuss terminology, concepts, advantages and disadvantages to providing care that is patient centered (A, C)

Explore women’s knowledge, nurses’ ways of knowing, the critical social theory, and / or relational practice (A) through the use of metaphor, haiku, or internet searches for images, brief YouTube videos that are shared with classmates (A, U)</td><td>Reflect on the knowledge gained, change in perspective; how it might impact future practice

Rubric to assess merits of story design, including content, relevance, inclusion of course content</td></tr>
<tr><td colspan="3">Resources
-Brown, H., Varcoe, C., & Calam, B. (2011). The birthing experiences of rural Aboriginal women in context: Implications for nursing. Canadian Journal of Nursing Research, 43(4), 100-117.
-Doane, G., & Varcoe, C. (2007). Relational Practice and Nursing Obligations. Advances in Nursing Science, 30(3), 192-205. doi: 10.1097/01.ANS.0000286619.31398.fc
-Reed, R. (2011). Sharing stories: Reclaiming birth knowledge. Midwifery Today, (99), 13-14.
- Weston, R. (2012). 'Telling stories, hearing stories': The value to midwifery students, Part 2. British Journal Of Midwifery, 20(1), 41-49.</td></tr>
<tr><td>Module 4
The Workplace: Ethics, Discourse, and Advocacy</td><td>After reading the assigned articles (C), learners will:</td><td>Feedback questionnaire or self- assessment regarding sense of empowerment after</td></tr>
</table>

Outcomes for this module will include increased awareness of ethics, discourses in the workplace, competing priorities, inadequate resources, and the hierarchy of privledging scientific knowledge as they relate to the provision of safe, compassionate care Outcomes relating to advocacy for both nurses and patients will include considering concepts such as the invisible nature of nurses' work, moral distress, and draw on critical social theory to increase awareness and understanding of colonial practices	-participate in a role play that depicts different perspectives such as patient, family, various care providers, and promotes critical perspective (A, U) -explore the concepts of advocacy by describing a time when learner was an effective advocate or witnessed an authentic example of a nurse using his/her voice in their practice (C, A, U) -explore and appreciate importance of reporting untoward events for future learning, injury prevention, and enhancing the workplace such as completing a PRF (C, A) -describe an ambiguous situation from one's practice or through internet search with moral, ethical undertones (U, P) and include a credit for your source (P)	completion of module Rubric can be provided for assessment of PRF completion, based on thoroughness, application of course content, critical awareness of underlying causes of concern Rubrics can also be designed to outline codes of ethics, professional responsibility, and patient advocacy
Resources: -Kornelsen, J., & Gryzbowski, S. (2012). Cultures of risk and their influence on birth in rural British Columbia. *BMC Family Practice, 13*(1), 108-114. doi: 10.1186/147-2296-13-108 -MacKinnon, K, (2011). Rural nurses' safeguarding work: Reembodying patient safety. *Advances in Nursing Science, 34*(2), 119–129. doi: 10.1097/ANS.0b013e3182186b86 -MacKinnon, K. (2012). We cannot staff for 'what ifs': the social organization of rural nurses' safeguarding work. *Nursing Inquiry*, *19*(3), 259-269. doi:10.1111/j.1440-1800.2011.00574.x -Wright D., & Brajtman, S. (2011). Relational and embodied knowing: nursing ethics within the interprofessional team. *Nursing Ethics* 2011; 18: 20-30.		
Module 5 Interprofessional Practice Outcomes for this module are related to collaborative practice, appreciation of the roles and responsibilities of other team members, risk	After reading the assigned articles (C), learners will -Participate in Practical Inquiry model of problem solving in small group activity to develop a team approach to critical thinking and problem	 Assessment of group process using PI Model Self assessment and individual group member assessment of contribution to group project

management, social discourse, and team building. Uncertain aspects of practice can be explored through consideration of unpredictable weather, skeletal staff, lack of resources, and 'waiting for the team'	solving (A,C) -identify 3 to 5 relevant sources to support activity OR -Participate in role play and gain awareness of different roles and perspectives	Provide rubrics to outline professional roles and responsibilities and codes of ethics
Resources: Cranbrook Alberta article about knowledge translation, creation in rural settings, -Curtis, K., Tzannes, A., & Rudge, T. (2011). How to talk to doctors - a guide for effective communication. *International Nursing Review*, *58*(1), 13-20. doi:10.1111/j.1466-7657.2010.00847.x -Evans, J., & Shreve, W. (2000). The ASK model: A bare bones approach to the critique of nursing research for use in practice. *Journal of Trauma Nursing, 7* (4), 83 – 91. - Ireland, J., Bryers, H., van Teijlingen, E., Hundley, V., Farmer, J., Harris, F., & ... Caldow, J. (2007). Competencies and skills for remote and rural maternity care: a review of the literature. *Journal of Advanced Nursing*, *58*(2), 105-115. doi:10.1111/j.1365-2648.2007.04246.x - Le Blanc, P., Schaufeli, W., Salanova, M., Llorens, S., & Nap, R. (2010). Efficacy beliefs predict collaborative practice among intensive care unit nurses. *Journal Of Advanced Nursing*, *66* (3), 583-594. doi:10.1111/j.1365-2648.2009.05229.x		
Module 6 Stress Management Outcomes from this module are related to creating a healthy workplace in which adeverse outcomes can be reflected upon and discussed without blame to enhance knowledge, support and identifying strategies for stress management and harm reduction	After reading the assigned articles (C), learners will: contemplate/discuss a workplace culture that supports ethical, reflective practice (C, A) -practice stress management techniques, such as meditation, yoga poses, relaxation strategies (A, P) -design powerpoint (or something similar) with images, haikus, short statements summing up your take-home messages from this course	Self assessment of learning Complete assessment (likert type scale) regarding comfort with uncertainty
Resources Flarity, K., Gentry, J., & Mesnikoff, N. (2013). The effectiveness of an educational program on preventing and treating compassion fatigue in emergency nurses. *Advanced Emergency Nursing Journal*, *35 (3)*, 247-258. doi: 10.1097/TME.0b013e31829b726f		

Appendix 3 – Practical Inquiry Model

This model is adapted from Garrison (2011, p, 46). One example from my practice that could inform learning with this model could focus on the concept of nurses' safeguarding work colliding with physicians' desire to work to their full scope of practice (MacKinnon, 2011, 2012). The exploratory phase could include internet searches for evidence based literature and policies or protocols that address this challenge, including perspectives of nurses, doctors, and families, and real stories of how these events have unfolded for participants.

Practical Inquiry Model		
The Four Phases of Critical Inquiry	Description	Example
Triggering event	Some kind of dissonance, or problem	Learner's personal experience Incident report audits Sentinel event Outdated policies
Exploratory, creative, divergent phase	Internet or article search to understand and find relevant information, followed by brainstorming	Find relevant articles Identify what knowledge, skills, resources are needed
Integration phase	More focused Discourse,	Present information/findings of research Group discussion of alternatives
Resolution	Decision Create guideline or template	a solution is agreed upon, or a template is designed to enhance a challenging aspect of practice p. 46

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