

ENGAGED SCHOLARSHIP IN PARTNERSHIP WITH A LOCAL HOSPICE: A
QUALITATIVE CASE STUDY IN A RADIATION THERAPY CLASSROOM

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DEDICATION

This dissertation is dedicated to my husband Charlie for his patience and support through this entire journey. We have been through a lot since I received that letter of acceptance and I could not have done it without you. I love you more than you will ever know, and I pray that we have many more experiences ahead of us.

Also to our son Levi who was born during the writing of this dissertation, I hope you always know that all the work we do is to give you the best life possible. We love you more than you will ever know, and we can't wait to see what God has in store for your life. I pray that you have educators in your future that take the time to create memorable learning experiences for you, and that you always have an inquisitive mind and a thirst for knowledge.

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ABSTRACT

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by

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SUPERVISING PROFESSOR: CLARENA LARROTTA

This qualitative case study focuses on providing answers to the following research questions. How do radiation therapy students respond to the implementation of an engaged scholarship partnership with the local hospice in relation to educational gains, experiential learning, transformational learning, and professional growth? This question is supported by the following sub-questions:

- a) What does the implementation of an engaged scholarship partnership with a local hospice look like within the boundaries of an undergraduate Radiation Therapy Program?

- b) How does this experiential learning project influence the students' view of the role of the radiation therapist?
- c) How does this experiential learning project impact the development of communication and empathy skills in the radiation therapy students?

In order to provide answers to these questions, data sources included; guided written reflections, interviews, documents, researchers' log, and field notes. Narrative analysis served as the main qualitative research technique in order to make sense and report on study findings. Study participants are ten students enrolled in the Introduction to Radiation Therapy course at a large university located in Texas. Study findings are presented through critical events, learning to communicate with a unique population, patient needs, gained a more empathetic viewpoint, reframing their view of terminally ill patients, and changing viewpoint of the role of the radiation therapist. Emerging tensions are also described; pedagogical implications and avenues for future research are provided.

CHAPTER ONE

INTRODUCTION TO THE ENGAGED SCHOLARSHIP QUALITATIVE CASE STUDY AND RELEVANT LITERATURE

On December 30, 2010 I received the call that so many people including myself pray will never come. “The radiologist is fairly certain the lump is cancerous and we need to schedule surgery as soon as possible” was all I remember my husband saying. Within two weeks the diagnosis was confirmed as seminoma, and as a healthcare worker who specializes in cancer treatment I am fully aware of the statistics. Testicular cancer is one of the most curable cancers and there is over a 95% cure rate even if it has spread. Despite this fact, I still could not help thinking about the possibility that I could become a widow in my 30’s. Friends and healthcare professionals all said the same thing: “ he will be fine, and this is a very treatable form of cancer,” but when it is your loved one they are talking about, a 95% chance of a 5 year survival is not all that comforting. We have been planning on spending the next 50 years together.

Death is a scary subject, and cancer patients and their loved ones are struggling to make sense of the situation they are enduring. It is important for healthcare professionals to understand that it is our job to allow patients and their families the time to express their

concerns and talk about their fears, not just state facts about survival rates and tell them that everything will be fine. It is hard to empathize with the situation if you have never experienced it. The question is how do we teach and guide radiation therapy students to develop empathy within the boundaries of an educational setting? Therefore, the goal of this study is to understand the experiences students took away from working closely with a terminally ill patient, and how that experience impacted their development into radiation therapists. Therefore, the research questions guiding the study include the following overarching question and sub-questions:

How do radiation therapy students respond to the implementation of an engaged scholarship partnership with the local hospice in relation to educational gains, experiential learning, transformational learning, and professional growth?

- a. What does the implementation of an engaged scholarship partnership with a local hospice look like within the boundaries of an undergraduate Radiation Therapy Program?
- b. How does this experiential learning project influence the students' view of the role of the radiation therapist?
- c. How does this experiential learning project impact the development of communication and empathy skills in the radiation therapy students?

Increasing the quality of communication between healthcare professionals and patients has been shown to be the most important component in patients' satisfaction of their healthcare experience (Leo et al., 2009; Oflaz et al., 2010). A need has been identified to move healthcare professionals from being disease focused to patient centered (Eberest,

2007), and so health profession students need to be educated in all aspects of patient communication and feel confident in their communication skills at the time of graduation.

The study is rooted in the principle of engaged scholarship theory as presented by Boyer (1990). Engaged Scholarship, or community engagement is a type of research where a partnership is formed between university faculty members and a community partner in order to meet a societal need while also educating students and exposing them to real world experiences. In Chapter Two I will discuss this theoretical framework in more detail.

Radiation therapy is a treatment technique that uses high voltage ionizing radiation to kill cancer cells that are inside the body (American Cancer Society, 2009). Because radiation cannot distinguish healthy tissue from cancerous tissue, both normal and healthy cells can be affected during radiation treatment. In order to minimize damage to normal tissue, the dose is divided into smaller units or fractions and is delivered over a prolonged period of time, usually anywhere between two to seven weeks (American Cancer, 2009). Radiation therapists are the health care professionals who deliver this dose of radiation to the patients for their entire treatment. Because of their daily encounters with the patients, and the sensitive nature of the treatment itself, patients and radiation therapists often form a unique bond that is rarely seen with other members of the oncology team. The development of this bond or friendship is helpful in making patients feel more comfortable around their therapists and opens up the doors of communication on many topics including their fears of death.

The diagnosis of cancer is a life altering event for both the patient, and the patient's family. According to the American Cancer Society (2010), there were an

estimated 1,529,560 new cases of cancer diagnosed in 2010, and approximately 569,490 cancer related deaths, making it the second leading cause of death in the United States. Because of earlier detection and increased knowledge on how to fight this disease however, a cancer diagnosis is no longer the death sentence it was a few decades ago (American, 2010). Despite this fact, the thought of mortality and end of life questions are on the minds of most cancer patients and their loved ones. Patients endure arduous treatment protocols which often include surgery, chemotherapy and radiation therapy. During the treatment phase of the disease, patients often seek answers to some tough end of life questions as well as comfort and empathy from their health care providers (Cooper, 2010). Therefore, it is crucial for healthcare providers to be professional and confident in their abilities to appropriately communicate with patients on all subjects including mortality.

Statement of the Problem

Many students enrolled in the radiation therapy program, and other undergraduate health care profession programs have never had a personal experience with death or chronic illness (Newsome & Dickinson, 2000). Also, these students do not have the experience addressing end of life issues with patients at the time of graduation, and are ineffective in providing necessary psychological care to terminal patients and their families (Ofiaz, et al., 2010). The patients that radiation therapy students will encounter are at a very vulnerable time in their lives. Cancer patients and their loved ones often begin wrestling with thoughts of mortality, possibly for the first time in their lives, and so need someone to communicate these concerns to (Laakkonen, Pitkala, & Strandberg, 2004). The need to openly discuss these concerns and possibly make plans and begin

preparing for the final days for themselves or their loved one is very important for the emotional well being of the patient and the family member (Oflaz et al., 2010). Because of the unique bond and daily interactions radiation therapists have with cancer patients, these topics of conversation often come up, and new radiation therapists need to be prepared and comfortable with allowing patients and family members' time to express their concerns and help them through this point in their life. The teaching techniques used for this in the past have proven to be unsuccessful in preparing new graduates for these conversations (Matzo, et al., 2003).

As an instructor and researcher I am interested in understanding the impact that a hospice-based engaged scholarship project may have on radiation therapy students within the boundaries of the radiation therapy curriculum. In order to accomplish this goal a qualitative research methodology with “focus on understanding experiences from the point of view of those who live them” (Rudestam & Newton, 2007, p. 35) was conducted. The students participated in the hospice- based engaged scholarship project and reflected on their learning experiences through guided reflective journaling in order to document professional growth and knowledge gain. Learning to feel comfortable in communicating about sensitive issues such as death and dying are important skills that will reduce the stress of a radiation therapist when talking with their patients. In addition, having this confidence can provide a space for the patient to open up and talk about these and other issues with their therapist. Being able to achieve this level of communication will also increase patient satisfaction and confidence in their healthcare professional (Leo, 2009; Oflaz, et al., 2010). Even though this is such an important topic, there is little research providing answers and guidance on the subject in the field of radiation therapy. For

example, Oflaz and colleagues (2010) report that “despite being skilled in high technology treatments and care, [oncology nurses] feel unprepared to care for a dying patient” (p. 119).

Purpose of the Study

The main purpose of this engaged scholarship research in partnership with the local hospice was to provide students enrolled in the radiation therapy program with relevant learning experiences and hands on practice working and communicating with individuals who are currently in the final stages of their lives. By implementing this curricular intervention into the *Introduction to Radiation Oncology* course, students had the opportunity to interact with patients who are actively dying. More specifically, students came face to face with their fears of talking about death and dying, increased their patient communication and empathy skills, and gained understanding of hospice. The assumption was that participating students would be better prepared to enter into the workforce and supply patients with outstanding care. Another assumption was that this curricular intervention would keep new radiation therapists from shying away from speaking with their patients about end of life concerns, and in turn improve patient quality of care and satisfaction.

In addition, implementing this research constituted an excellent avenue to document and to explore curricular changes relevant to providing better preparation for our students in the field of radiation therapy. This experience served as an opportunity for me as instructor and researcher to gain a better understanding of what engaged scholarship looks like in partnership with a local hospice. Finally, this research study

provided me with the opportunity to examine my teaching practice and draw pedagogical implications relevant to other radiation therapy instructors and programs.

Researcher's Background

As a registered radiation therapist, I have the honor of treating patients at one of the most vulnerable times in their lives. Radiation therapists are health care professionals who treat cancer patients, one of the most prevalent diseases in the United States, and around the world (American Cancer Society, 2010). During my tenure as a practicing radiation therapist, I often became very close to my patients and talked with them about many different subjects. The topics ranged from their grandchildren, to what they had for dinner the night before; it all depended on the patients' personality, and how comfortable they felt around me. There was one subject however that seemed to enter the conversations between myself and my patients on a consistent basis, and that was the topic of mortality.

I still remember the first time in my professional career when a patient came to me worried about the possibility of dying and how to alleviate the fears and concerns of her family members. At that time, I had only been a licensed radiation therapist for a couple of months, and I vividly remember responding to her: "you don't need to think about that, just stay positive and everything will work out fine!" Reflecting back on this conversation, I still feel guilty for not providing this patient with the space to voice her concerns. As a medical professional who had read her medical records, I knew she had reason to be worried, but in saying this I was able to get out of an uncomfortable situation for myself, while making this woman look elsewhere for help and guidance. Currently,

as a more experienced radiation therapist, I cannot believe I responded in this manner; however I know others are (still) doing the same.

After several years as a practicing radiation therapist, I moved into the field of education and I am currently employed as an assistant professor in a radiation therapy program at a four-year-university in central Texas. Currently, my main goal as an educator in the field of radiation therapy is to ensure that new graduates are confident in their technical skills as radiation therapists, as well as develop superior communication and empathy skills when working with cancer patients. Since entering the field of education, I have implemented different teaching techniques aiming to enhance students' communication skills. In class we have explored professional communication skills such as communicating as part of a health care team, and active listening, through discussions of their clinical experiences and concerns they have about their skills. Other teaching strategies used include having student's role play different situations that may arise in the clinic, as well as inviting guest speakers to class who have been radiation therapy patients and who are willing to share their experiences.

From professional experience, I know that role playing and scenario reenactment during the first semester in the program taking the *Introduction to Radiation Oncology* course are a common practice. Students receive a scenario as either a patient or the healthcare provider and are asked to role play what they would say in the given situation. This strategy could be a safe way for the students to practice and discuss. However, when students become uncomfortable talking about a subject such as death, they often revert to joking around instead of making the effort to address the subject and have a responsible and serious discussion. It has become clear to me as the instructor that this type of

activity is artificial and is not as educative as it should be. Here is where the constraints of the classroom and the curriculum become a burden.

As a result of my frustration and as part of my professional inquiry, in fall 2010, I administered a questionnaire and implemented informal group interviews with the students in order to identify what they saw as their learning needs. As I expected, most of the students reported on the need to improve or expand upon patient communication skills especially on the subject of death and dying. In response to students' manifested learning needs and in the effort to provide them with more authentic learning experiences, I started taking the students to the local hospice. These visits to the local hospice made me realize the potential learning for the students and improvement of the radiation therapy curriculum.

More than addressing the objectives of the *Introduction to Radiation Oncology* course that I teach, establishing a partnership with the local hospice allowed the radiation therapy students in my class to become exposed to individuals currently living with a terminal illness. Among other relevant learning experiences, the students learned more about hospice, patients' needs, and how to build relationships with current patients. This first attempt to enrich the curriculum made me wonder about the implementation of a curricular intervention similar to what Fein, Quinonez, and Phillips (2009) describe, the implementation of a change in the curriculum in order to evaluate students' responses and knowledge gain of an identified deficit. In addition, I wanted the partnership with the hospice to be of reciprocal benefit to the hospice patients, my students, and the University program. This meant I must utilize the resources available to our University in order to address a common social, civic and ethical problem (Boyer, 1990). In establishing a

partnership with the local hospice project, the community will benefit from the university students volunteering and donating their time and energy, while the students will gain valuable experiences in working with a population in whom they may not have had prior exposure.

Relevant Literature

The purpose of the present study is to explore innovative methodologies to better prepare radiation therapy students to confidently and professionally discuss and address issues of mortality with cancer patients and their family members. The teaching techniques used in the past have proven to be unsuccessful in preparing new graduates for these conversations (Matzo, et al., 2003). The need for educators in this field to alter their teaching strategies in order to better engage the student in the learning process was identified as a possible approach to this problem.

Adult Learning Principles

Knowles identifies several assumptions about adult learners including that they are typically self-directed, have a reservoir of experience, are problem centered as opposed to subject centered, have internal motivation, and need to know why they are learning what they are learning (Knowles, Holton, & Swanson, 2005; Merriam, Caffarella, & Baumgartner, 2007). Keeping in mind these basic assumptions about adult learners the engaged scholarship project provided the participating students with new and valuable learning experiences tailored to their learning needs. Therefore, the students enrolled in the introduction to radiation therapy class were envisioned as adult learners who desire to learn the course material in order to better themselves as opposed to simply receiving a grade for the course.

Knowles' work is considered to be seminal in understanding how and why adults learn. To this day, andragogy is seen throughout Europe and especially in Eastern Europe as a science (Merriam, 2001; Savicevic, 2008). Many argue that andragogy is not a learning theory at all but rather simply a list of learner characteristics, or characteristics of the ideal adult learner (Merriam, 2001; Merriam et al., 2007), and that andragogy seems to neglect the learner's role in society (Merriam, 2001; Sandlin, 2005). For example, not all cultures put as much emphasis on independence and individuality; some place much more value on community and family and they are collectivist oriented cultures. In addition, Knowles postulates that adults often define themselves by their experiences (Knowles, et al., 2005), and acknowledges the role that experience plays in adult education (Merriam et al., 2007). Therefore, it is important that as the class instructor I keep in mind that the students in my classroom are all from different backgrounds, giving them different experiences, and are at different levels of maturation. All of the students accepted into the radiation therapy program, and participating in this project are classified as juniors.

Linking Experience to Learning

Dewey (1938) explains that, "all genuine education comes about through experience" (p. 13). This researcher capitalizes on the importance of adult educators evaluating their teaching techniques and the experiences that their students are having, including their experience within the classroom. As an instructor in the radiation therapy program, I emphasize the importance of developing superior communication skills in the classroom, but I have recently been reflecting on the teaching strategies I use, and how to supply the students with richer learning experiences that will hold greater meaning for the

radiation therapy students. For Dewey a learning experience can “mis-educate... or is mis-educative [and]...has the effect of arresting or distorting the growth of further experience” (p.13). Therefore, adult educators must begin to evaluate the experiences the students are having in the classroom, or teaching strategies, in order to ensure the knowledge acquired by the students is what the instructor anticipates (Merriam, et. al., 2007). If students are learning in a manner that simply drills facts into students’ minds, it will be difficult for those students to critically apply that knowledge to situational problems that occur in real life, because they will lack real world correlation to the information. As a case in point, the current curriculum in radiation therapy lacks in the inclusion of real life learning experiences and the application of the knowledge beyond clinical education. Educating students with lectures and discussions only is not enough to prepare them as providers of high quality healthcare to cancer patients.

The idea of engaged scholarship and experiential learning is not a new idea; we know that the majority of learning occurs outside the classroom (Dewey, 1938; Jarvis, Holford, & Griffin; 2004, Kolb, 1984; Merriam et al., 2007). In utilizing experiences taking place outside the classroom to acquire knowledge in the classroom, students will build a foundation of knowledge from which they can draw upon at a later point. Merriam, et al., (2007) describe this concept as the ability for learners to, “connect what they have learned from current experiences to those in the past as well as see possible future implications” (p. 162). As an instructor, I implemented this curricular intervention with the intention that through participation in this hospice-based community engagement project, the students will be better prepared for their future roles as radiation therapists.

Conversely, one difficulty with utilizing experience as a teaching strategy in the formal educational settings is the adult educator's need for implementing careful assessment in order to predict the meaning students will make out of the learning experience (Moon, 2004). Many times, instructors just stop at offering experiences and the assessment portion of the quality of the experience offered comes short. Adult learners, from a constructivist's perspective, will all construct or make meaning out of a given experience differently based on their own past experiences, assumptions and knowledge (Crotty, 1998; Noddings, 2007). Because each learner interprets and makes meaning out of the experience differently, it is important for the educator to constantly engage in a dialogue with the students to assess the acquisition of knowledge and realign the curriculum if necessary (Moon, 2004). For this curricular intervention I assessed the students learning through written reflections, interviews, and observations on a consistent basis in order to ensure students understood the connection between the course objectives and the hospice experience.

Educators from this constructivist epistemology, or the belief that knowledge is constructed individually and socially, will acknowledge the need to constantly assess learners' understanding (Moon, 2004; Noddings, 2007). Critical reflection, or discovering the impact and meaning we take away from an experience (Turesky & Wood, 2010) has been established as a way for educators to, "know what and how students are thinking" (Noddings, 2007, p. 127). Through critical reflection students and educators realize what knowledge they are taking away from an experience, and educators can guide them into solidifying that knowledge, or propose other solutions that will make the individual more effective in the future (Fiddler & Marienau, 2008). As part of the

curricular intervention, students had the opportunity to keep a reflective journal with the purpose of ensuring that they are gaining new insights and skills, and connecting how this service is increasing their knowledge and skill set.

Experiential Learning Theory

The origin of experiential learning theory can be traced back to works by Dewey, Lewin and Piaget and highlights the role experience plays in the acquisition of knowledge (Boyatzis & Mainemilis, 2000; Kolb, 1984). Kolb (1984) explains that, “learning is a continuous process grounded in experience. Knowledge is continuously derived and tested out in the experiences of the learner” (p. 27), and so the experiences, either good or bad, by students within the educational setting will alter their views on the subject matter, and broaden or narrow their views of the world (Dewey, 1938). In order to ensure students’ experiences are accurately increasing their knowledge, continuous assessment must be done by the instructor, and retesting of the knowledge in different scenarios will solidify the knowledge (Merriam, et al., 2007), which is why the students written reflections occurred at specific time periods throughout the entire service project.

People learn from experience in a variety of ways, such as reliving a past experience, having a direct result of an embodied experience, through collaboration with others or through introspective experiences such as meditation or dreaming (Fenwick, 2003). Four elements have been identified by Kolb (1984) to express how experiential learning is acquired, conceptualized, and turned into knowledge. First, the student has a concrete experience (Merriam, et al., 2007). Following the experience, the learner must reflect and then begin to form abstract concepts on the meaning of the experience (Kolb, 1984). Finally, Merriam et al. (2007) state that active experimentation or testing out the

knowledge in other situations is necessary to form problem-solving and decision-making skills for use later in life.

In applying this to adult education, instructors must supply the experience, reflect upon the experience, begin forming ideas to make the experience more general, and then test the new knowledge in other situations in order to ensure accuracy (Kolb & Fry, 1975). Schön (1983) describes the continuous cycle of experimenting, reflecting and reapplying as reflection-in-action, and he validates that this is the main tool used in developing a professional practice. Kolb's theory on effectively incorporating experiences into learning will provide the foundation for this hospice-based engaged scholarship project. Careful attention was given to ensure the students were acquiring an experience that was meaningful and significant to their area of study. During the reflection phase students solidified the newly acquired knowledge. This reflection process as well as the development of communication and empathy skills throughout their practice at the hospice-based engagement project helped them make the connection to their clinical practice.

Two types of learning result from experiences, non-reflective and reflective learning. Every day we engage in *non-reflective* learning experiences which we have learned by habit, or by being directly taught. Research suggests that when our customary habits or existing paradigms fail us we move to *reflective* learning (Merriam, et al., 2007; Miettinen, 2000). This is the type of learning we as instructors need to promote in the classroom. Providing students with experiences is not enough, the quality of the learning experiences and the reflection process to arrive at learning are crucial elements we often neglect in the busy curriculum in our efforts to “cover” the curriculum content.

Experiential learning has the ability to change the way the learner sees a situation, or solves a problem by allowing him or her to become engaged in the activity and realize the impact different responses have on the situation (Kolb, 1984; Schön, 1983). This new perspective, of being actively involved in an activity and reflecting on the change it makes in the learner's world, has the ability to dramatically alter the way students see the world and their place within it. Throughout this curriculum intervention, it was important for me as the instructor to stay actively engaged in the project, monitoring their progress, linking the learning to the classroom objectives, and modifying the project as necessary in order to maximize students learning.

Transformational Learning

Transformational learning is the process by which people redefine their taken-for-granted frames of reference, such as schemes, habits of mind, or mindsets and makes them more open to change, through reflection, to guide their actions (Mezirow, 2000). Mezirow (1991) describes transformational learning as a, "constructivists theory of adult learning" (p. 31). He suggests three key concepts as fundamental for transformational learning to occur: experience, critical reflection, and development. The experience can add knowledge which may transform our perspective or change our frame of reference. However, Mezirow explains that transformation cannot take place without a critical self-reflection of the experience. Similar to Knowles identifying that adult learners carry with them past experiences from which they learn new things and derive meaning, Mezirow (1997) explains that adults' previous experiences mold their frame of reference, or "the structures of assumptions through which we understand our experiences... [and are made

up of] associations, concepts, values, feelings, and conditioned responses” (p. 5) that determine the meaning an experience has on the person experiencing it.

The foundation of transformational learning theory is the process that leads the learner to discard their past frame of reference (Cranton & King, 2003) and obtain a new frame of reference that is “more inclusive, discriminating, self-reflective, and integrative of experience” (Mezirow, 1997, p. 5). This allows the adult learner to construct a more authentic view of the world, and gain an empathetic understanding of others’ experiences (Merriam, et. al., 2007). Teaching methods that have been found to produce transformational learning are concept mapping, consciousness raising and participation in social action (Mezirow, 1997; Taylor, 2007), allowing educators to hypothesize that the implementation of experiential learning methods have the possibility to lead to transformational learning in adult students when appropriately planned and guided.

Transformational learning is a very important concept to keep in mind when implementing an intervention to the curriculum in radiation therapy. Similar to other fields, the misinformed learner tends to hold certain negative assumptions and deficit ideology about the population he or she will serve. Research shows that many college aged students hold negative perceptions of older populations (Henderson, Xiao, Siegloss, Kelton, & Patterson, 2008; Välimäki, Haapsaari, Katajisto, & Suhonen, 2008) and so need to learn how to appropriately meet the needs of the patients they will be providing service for and reframe their perceptions of this population. In many healthcare professions, including radiation therapy, most of the patients are elderly and possibly have a terminal diagnosis. These individuals are considered to be a unique population, which require special skills and training from the part of the therapist and health care

providers (Välimäki, et al., 2008). Through this project, students had first hand encounters with a demographic of society that they previously had little to no experience with. This allowed them to be more inclusive and accepting of patients of all backgrounds and diagnosis and begin to recognize the unique needs of terminally ill patients and how they could better meet those needs.

The Radiation Therapy Curriculum

The professional curriculum guide for the field of radiation therapy is outlined by the American Society of Radiologic Technology (ASRT). Students must successfully complete the radiation therapy curriculum in order to qualify for the certification exam given by the American Registry of Radiologic Technologists (ARRT) and become a licensed radiation therapist. Completion of the appropriate education before becoming a licensed radiation therapist ensures that all students who sit for the registry have had the same basic principles taught to them. However, the teaching methods utilized to accomplish these objectives are determined by the faculty member delivering the material and the institution in which the program resides.

The ASRT (2009) stresses the importance of communication and empathy skills in both the general education and the required general education components. Students are expected to build a patient centered approach to their work which will enable them to, “assess patient side effects and complications to create an interdisciplinary management strategy that fosters prevention, healing and comfort” (American Society of Radiologic Technologists (ASRT), 2009, p. 2). The field of cancer care needs to focus on the patients over the technology and treatment, because it is such a prevalent and fear inducing disease (Leo, et al., 2009; Warren, 1991). Warren (1991) suggests that

“medicine should be seen primarily as caring for people’s health rather than fighting a war against a disease” (p. 45), and so healthcare providers need to reevaluate the care they are providing to these patients.

In order to create a caring environment in which to treat radiation oncology patients, the “physical, psychological, social, spiritual or economic” (Ballo, 2011, p.1) issues need to be addressed proactively. A study by Leo et al. (2009) looked at the satisfaction of cancer patients admitted to the hospital under thoracic oncology. The findings indicate that the major influence on patient satisfaction of their care is, “the capacity of formal caregivers to recognize and understand their patients’ state of mind as well as their emotional state; in a word, to establish empathy” (p. 364-365). Instilling empathy into students who will directly work with cancer patients on a daily basis has the potential to greatly improve the quality of care patients receive, which was the goal of this hospice-based engaged scholarship project.

The ASRT (2009) ensures graduating radiation therapy students are capable of providing these services by incorporating ethical concepts and theories on managing patient interactions into the curriculum. Students must demonstrate ethical decision making skills in a variety of health care dilemmas known to arise in the field of radiation therapy. Included in these are developing appropriate professional/patient relationships, and helping patients confront end of life issues, including but not limited to advanced directives, treating the family, and hospice.

The ways in which radiation therapy programs educate students on patient communication and ethical decision making skills greatly vary, which is encouraged by the ASRT (2009) in order to bring unique strengths to individual programs and

graduating students. All programs provide courses in patient care and ethics, the majority of which are taught through lectures and memorization of facts (Greathouse & Dowd, 1996). The hands on, or experiential learning portion of the curriculum is taught through the clinical education.

Teaching Strategies used to Enhance Patient Support

There is currently a push to integrate teaching techniques that will more actively involve the students in the learning process, based on the thought that, “to become empathetic practitioners, students must learn how to put themselves in the patient’s place. They must learn to imagine the discomfort patients feel...the anticipation [patients] experience” (Greathouse & Dowd, p. 1). These are skills that simply can not be taught sitting in a classroom taking notes (Greathouse & Dowd), but are required by the Bureau of Labor Statistics (2010) in order to be a successful radiation therapist.

Little research exists in the field of radiation therapy on teaching techniques used to develop empathy skills in students. Greathouse and Dowd (1996) encourage the use of real world experiences and increasing students’ participation in the learning activity but do not offer proven strategies of how to implement these experiences into the radiation therapy curriculum. Other health care professions, such as nursing, and medicine also have a need to instill empathy and patient care skills into their students and have researched different strategies that seem to be productive in those fields, which may also carry over into the field of radiation therapy.

Webster (2010) examines the introduction of a creative reflective teaching strategy in a course taught to psychiatric nursing students. Throughout the course, students were assigned a single patient with whom they built a relationship, collected data

on the client's family and past experiences, and developed a more holistic view of the client's situation. Students were asked to try to understand how the mental illness had affected their patients' lives, and to reflect upon their time spent with the patient through reflective journaling. This teaching technique resulted in students understanding that they had preconceived notions about the patient. They learned to build a professional relationship, had the ability to change perception about the patient, and realized that they gained this new understanding of the patient through creative expression.

Another study, by Winefield and Chur-Hanson (2000), implements a teaching strategy to increase empathy and patient communication skills in first year medical students. Students were instructed to perform two one hour interviews with the same patient about an aspect of that person's life that called for "psychological adjustment and well-being within families" (p.91). Through this activity students would learn how to introduce themselves to the patient, develop a rapport, and how to respond to patients showing strong emotions. Results from this study show that students felt better prepared to initiate conversations with patients and were more capable showing empathy to patients.

Some students in this study, however, did not show an increase in empathy skills (Winefield & Chur-Hanson, 2000). One student indicated that, "my communication skills have not advanced as a result of this practical...Nonetheless, I am aware of the importance of having excellent skills for medicine" (p. 94). This student realizes he or she needs to develop these skills, but this practice was unsuccessful in doing so. A possible reason for this result, as opposed to the finding by Webster (2010), was the amount of time the students spent with the patient. In the Webster study, students spent

four weeks with a single patient, and in the Winefield and Chur-Hanson study students spent two hours. Another possible reason for the lack of transformation on this student could be that every student will respond to experiences differently, and brings about his or her own assumptions into the experience (Dewey, 1938; Knowles, et al., 2005; Mezirow, 1991), and so, no two students can have the same experience and knowledge gain. This curricular intervention investigated ways to enhance student patient care skills specifically in the field of radiation therapy where patients will have a unique set of needs as they are coping with life and death situations. These two studies helped guide the methodology of this study.

Learning to Understand Death and Grief

One of the most notable theorists on the subject of death and dying is Elisabeth Kubler-Ross (1969). In her ground breaking research on terminally ill patients Kubler-Ross identifies five stages individuals progressively encounter when handling death and grief: denial and isolation, anger, bargaining, depression and acceptance. Acceptance she identifies as the final stage and admits that this stage is often misunderstood to mean that the individual is OK or has come to terms with the idea that he or she will die. Instead, she believes acceptance to mean that the individual and the loved ones understand that this is their new reality and they are now willing to learn to live in this new reality.

These stages help others better understand how a terminal diagnosis affects the patient, the professionals who care for that patient, and the family members, in the hopes of, “bringing hope, solace and peace of mind to all involved” (Kubler-Ross, 1969, p. 1). Kubler-Ross conducted this research, because she believes that in better understanding

what the terminally ill patient is experiencing, healthcare professionals and family members can better ease the transition of the patient from life to death, and learn to better cope with the loss after the passing.

Limitations of the work by Kubler-Ross are expressed by many researchers on the topic of death and dying (Cutcliffe, 1998; Love, 2007; Maciejewski, Zhang, Block, & Prigerson, 2007). One limitation is that the stages of grief mainly focus on the journey of the patient and fail to capture the experiences of those left behind (Love, 2007). Also, the linearity of the model and the progression through prescriptive phases leads many to question how universal these stages really are (Cutcliffe, 1998; Maciejewski et al., 2007). There is a worry that the failure for patients to enter into each of these stages or deviate from the prescribed path may be viewed as “maladaptive” (Cutcliffe, 1998), and so leave a negative impact on the patient or the family.

A study by Laakkonen, Pitkala, and Strandberg (2004) also indicates the relationship between culture and the acceptance of death, which was unmentioned in the works by Kubler-Ross. This qualitative study on the needs and experiences of the terminally ill, which took place in the United States, found that for most of their patients, death remained a distant abstraction and many did not have the awareness and acceptance of their terminal diagnosis. Many patients indicated that they, “wished to be treated actively and many still hoped for curative treatment” (Laakkonen et al., 2004) indicating that they had not internalized or accepted the terminal diagnosis they had received.

Needs of Terminally Ill Patients and Healthcare Providers

Terminally ill patients often have different needs from healthcare professionals, and many initiatives examine how to improve the nature of care provided to palliative

patients (Field & Cassal, 1997; Stillion & Papadatou, 2002). Among the initiatives are the strengthening of both the quality and quantity of communication by healthcare workers with patients and families, and recognizing the value of caring in the field of medicine (Field & Cassal, 1997). In one study by Lakkonen, et al. (2004), terminally ill patients indicated that the major disappointment in care provided to them at the end of their life was the distance they felt from healthcare professionals during their illness. This distance they felt prevented them from developing meaningful relationships with those giving them care. As many terminally ill patients are often widowed and possibly have no caregivers living close to them, this was a source of great disappointment (Lakkonen, et al., 2004). Fields & Cassal (1997) indicate that this lack of supportive care by medical personnel, “may lead to despair and thoughts of suicide” (p. 52), and is a major worry in the field of radiation therapy as patients are struggling with the acceptance of their disease.

Studies show that medical professionals working with terminally ill patients need to consciously move from curing to caring treatment strategies. The need for medical professionals to focus on the, “physical, psychosocial, and spiritual needs” (Stillion & Papadatou, 2002, p. 312), and truly begin to empathize with patients and their families will create an open space for voicing concerns and questions about the process of dying (Laakkonen, et al., 2004). This will dramatically increase the quality of care given to the terminally ill.

Healthcare Professionals Struggles with Death and Dying

Healthcare professionals who work closely with patients who have a terminal illness diagnosis are affected personally by the losses, and need to be educated on how to

resolve feelings of grief and sadness in order to reduce the risk of depression, stress and job burnout (Rich, 2005; Stillion & Papadatou, 2002). The death of a patient has been shown to affect the healthcare practitioner in three ways: it can be a painful reminder of personal losses, create anxiety related to their own fears of personal losses, and heighten awareness of one's own mortality (Rich, 2005). This curricular intervention allowed students to confront their fears and gain experience in understanding grief before graduating in order to better prepare them for the profession.

Many healthcare professionals indicate that while they are confident in their ability to assist patients with high technology treatments, they feel underprepared to care for dying patients' psychosocial needs (Oflaz, et al., 2010; Sivesind, et al., 2003). In a study by Of laz et al. (2010) on oncology nurses' emotional difficulties in working with terminally ill oncology patients, areas identified as causing the most distress were the patients and their families expressing emotions to them, distress by the patients' condition, and the nurses' feelings and acceptance of death. Most healthcare professionals; however, want to form bonds with their patients as this is often the major reason for becoming a healthcare professional.

One barrier to improving the relationship between healthcare professionals and terminally ill patients and their families is the ever increasing workloads (Laakkonen, et al., 2004; Of laz et al., 2010). Increased workloads and shortage of staff cause healthcare professionals not to have the time to invest in their patients other than the time they are physically needed, diminishing the quality of their interactions. This finding was evident in the study by Laakkonen, et al. (2004) as patients indicated that even though their physical needs were well taken care of, "the nurses had little time for communication" (p.

124). In educating students proactively on how to properly cope with loss, expectations terminal patients have of their healthcare providers, and being compassionate caregivers to family members, newly graduating healthcare professionals will have an increased job satisfaction and decreased stress while improving the quality of care given to patients.

College Students' Understanding and Perception of Death and Dying

Research shows that most college aged students have little experience with death or individuals struggling with terminal illness (Newsome & Dickinson, 2000; Sanner, 1997; Sharma, Monson & Gary, 1997), and so, “attach a distant perception to death” (Newsome & Dickinson, 2000, p. 335). Further, studies on college students' perception of working with older patients in the medical field are also negative (Henderson, et al., 2008; Välimäki, et al., 2008). As the population rapidly ages, students in the health professions need to understand the unique skills needed to work with the elderly (Välimäki et al., 2008), and this is especially important in the field of radiation therapy where the majority of patients are elderly, and/or terminal (Washington & Leaver, 2010). There is a need to alter health profession students' perceptions of death and dying so they are ready to enter the workforce and provide high quality care at the time of graduation.

Gap in the Literature

Even though the radiation therapy curriculum establishes the need for students to develop superior communication skills and empathy in their professional setting the literature on radiation therapy does not illustrate how to do this in the classroom setting. Research suggest that while educators in the health professions understand the importance of teaching students communication and empathy skills, the teaching strategy most commonly used is lecturing (Matzo, et al., 2003; Shapiro, Rucker, & Robitshek,

2006). Conversely, research on adult education indicates that it is crucial for adult learners to utilize experience in order to validate, test, and build new knowledge (Dewey, 1938; Jarvis, et al.; 2004, Kolb, 1984; Merriam et al., 2007). The literature on radiation therapy research offers very few examples of teaching strategies that effectively develop and increase students' communication and empathy skills. More importantly, no studies involving radiation therapy students were found.

The purpose of this study is to explore innovative methodologies to better prepare radiation therapy students to confidently and professionally discuss and address issues of mortality with cancer patients and their family members. Rooted in the principles of engaged scholarship, this study includes the design and implementation of a curricular intervention to engage students in their learning and provide them with meaningful learning experiences that will transfer into knowledge gained.

Engaged Scholarship

This curricular intervention is rooted in the tenets of engaged scholarship research. Engaged scholarship, also commonly referred to as community engagement, or service learning is not a new concept. Evidence of community engagement on university campuses can be identified as far back as the 19th century when, “the Wisconsin Idea” was brought about under the premise that “the boundaries of the university are contiguous with the boundaries of the state” (Butin, 2007, p. 34). In other words, the University has a responsibility to move beyond the walls of the classroom and begin integrating real life experience into the curriculum. According to Butin (2007) this pedagogical approach is supported by “...the Carnegie Foundation’s recent development of a voluntary community engagement classification that spotlights strong curricular

engagement and partnerships with local communities” (p 34.). Universities are slowly moving out of the mindset that learning must take place within their walls and realizing that real life scenarios offer valuable learning experiences. Community engagement projects take students out of the typical classroom setting and place them in situations where they have to use and develop skills deemed important by the instructor and the curriculum in order to provide a service in their community. As the theoretical framework for the present study, engaged scholarship will be discussed further in the following chapter.

Summary

This chapter served two purposes, introduce the study, research questions and statement of the problem, and it also provided a review of the literature directly related to the study. The gap in the literature illustrated the need for exploring new teaching strategies for developing students’ communication and empathy skills in the field of healthcare and radiation therapy. Next, in Chapter Two, I will provide a detailed description of the methodology and overall study design for the implementation of the present study.

CHAPTER TWO

METHODOLOGY AND OVERALL STUDY DESIGN

This qualitative case study examines the implementation of a curricular intervention within the boundaries of a Radiation Therapy Program. A case study constitutes a situation where the researcher investigates a particular phenomenon that has occurred to *an intrinsically bound group* (Merriam, 2009). Data come from a specific population experiencing an event and representing a unit of analysis (Merriam, 2009; Patton, 2002). The unit of analysis describes the characteristics of the group or phenomenon object of the investigation. This hospice-based engaged scholarship project constitutes a case study of a unique curricular intervention implemented into a course offered to radiation therapy students. Based on the work of Fein, Quinonez, and Phillips (2009) a curricular intervention is the implementation of a change or modification in the curriculum in order to evaluate the students' response and knowledge gain of a previously identified deficit.

Specifically, this qualitative case study explores the experiential and transformational learning that takes place when a hospice-based engaged scholarship project is incorporated into a radiation therapy course. Ten students enrolled in the *Introduction to Radiation Therapy* course volunteered to participate in the project; I will refer to them as Ann, Christi, Debra, Jayme, Kim, Karla, Laura, Leila, Margaret, and Sharla (all pseudonyms). The present Chapter describes the methodology used for the

implementation of this curricular intervention. Denzin and Lincoln (2000) explain that qualitative research is characterized by the researcher's desire to understand a particular phenomenon or an individual or group of people's experience and the meaning they make from that experience. In this case, I aim to understand and document my students' experiences participating as hospice volunteers learning to communicate and work with real-life patients. Merriam (2009) also supports this goal and states that qualitative researchers are "interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (p. 5). As a researcher and as the course instructor, I was interested in learning how the hospice-based engaged scholarship project influenced the development of the participating students into becoming professionals who are equipped with appropriate tools to communicate and interact with terminally ill patients. Therefore, the overarching research question guiding the study is: How do radiation therapy students respond to the implementation of an engaged scholarship partnership with the local hospice in relation to educational gains, experiential learning, transformational learning, and professional growth? This question is supported by the following sub-questions:

- a. What does the implementation of an engaged scholarship partnership with a local hospice look like within the boundaries of an undergraduate Radiation Therapy Program?
- b. How does this experiential learning project influence the students' view of the role of the radiation therapist?
- c. How does this experiential learning project impact the development of communication and empathy skills in the radiation therapy students?

Answers to these research questions will be addressed in Chapters Three and Four. In the present Chapter I describe my perspective and roles as the researcher. Next, I present engaged scholarship as the framework for the study followed by a description of the setting, participants, data collection, data analysis, and ethical considerations. By providing a detailed description of the study design, readers can decide what is transferable to their own educational settings (Merriam, 2009; Patton, 2002).

My Professional Perspective

As a university instructor with five years of teaching experience in the field of radiation therapy, I see learning and teaching as processes that require the integration of knowledge, relevant practice, and conscious reflection. Radiation therapists work closely with patients who have a cancer diagnosis and they must understand concrete facts about each type of cancer and know about survival rates, rate of metastasis¹, and types of treatment recommended for each stage of the disease. To become truly empathetic caregivers however, students must also understand the psychosocial impact a cancer diagnosis has on patients. Each patient will react to their diagnosis and treatment differently. Consequently, radiation therapists must understand the devastating effect a cancer diagnosis has on patients in order to truly empathize with them and provide the quality of care they deserve. In my experience as a radiation therapist, understanding the psychosocial needs of the patients is one of the most challenging aspects of the job, and is often learned through experiencing it in the clinical setting. Understanding the different

¹ When cancer has moved from its original location or organ and began to spread into other surrounding or distant organs of the body it is said to have metastasized. Cancer metastasizes via the lymphatics, blood system, or through direct extension (American, 2010).

types of cancers and how to best treat them based on their growth patterns and staging is all based on facts and research, and is taught in the classroom. Understanding how to best communicate and support patients undergoing treatment, on the other hand, is much more subjective. Each patient's needs are unique; however, they all desire high quality professional care. It has been my experience that students' struggle to truly understand the magnitude of what patients are going through when they have had no personal experience to draw upon.

My Role as a Researcher

As the instructor of the course, my main duty was that of a teacher-researcher. This role has been described in the literature as an educator interested in examining her own teaching practice with the goal of improving the education she is providing to her students (Kincheloe, 2003; Patterson & Shannon, 1993). As a teacher-researcher one begins to question students' learning and one's teaching techniques (MacLean & Mohr, 1999) with the goal of making appropriate adjustments to better fit the students' needs, documenting the teaching-learning process in order to share lessons learned with others in the field, and evaluate the outcome of one's investigation. As a researcher, I was what Merriam (2009) calls *the human instrument and filter of the information*. Within this role I made important decisions while collecting and analyzing data for the study. I acted as a reflective and careful professional examining the data and adjusting the project as necessary in order to adequately enhance student learning and document the process.

Engaged Scholarship as a Framework for the Study

The study is rooted within the principles of *engaged scholarship*, which marry the resources of both university educators and community members, creating a learning

experience that allows both to benefit from participation in such collaboration (Boyer, 1996; Seifer, Hemanns, & Lewis, 2000). In the practice of engaged scholarship the students go out of the typical classroom setting and participate in situations where they use and develop skills deemed important by the instructor and the curriculum in order to provide a service in their community.

Engaged scholarship is also known as community engagement or service learning and has been defined as, “a structured learning experience that combines community service with explicit learning objectives, preparation, and reflection” (Seifer, et al., 2000, p. 11). In addition, the project must correlate with specific academic goals and objectives that are relevant to the students’ curriculum and that build reciprocal and mutually beneficial relationships with community. Within this framework, the teaching-learning process becomes a meaningful practice that requires: (a) providing a service to the community, (b) reflecting and discussing in order to enhance student learning, (c) teaching civic responsibility, and (d) supporting community development (Boyer, 1990; Keen & Hall, 2009). The students achieve the established curricular objectives through acquiring knowledge in the real-world setting and they actively apply the course material in a powerful and authentic way (Boyer, 1990; Domangue & Carson, 2008; Jensen & Burr, 2006).

Reflection on experience, foundation in community need, and the bond between community partner and learning institution are all critical elements in providing a quality community engaged learning experience (Boyer, 1990; Domangue & Carson, 2008; Howell, 2008; Keen & Hall, 2009). In this study, I worked closely with a community partner, Caring Hands Hospice, in order to address a need of the community directly

connected to the learning needs of the students in my class and together we created a valuable learning experience that benefited both parties.

Setting: Our Class and the Engaged Scholarship Project

The study took place within the Radiation Therapy program at a medium size University in central Texas. This is one of three baccalaureate degree granting radiation therapy programs in the state. The community partner associated with this project is Caring Hands Hospice (pseudonym). The Introduction to Radiation Therapy course is offered during the fall semester of each academic year and is one of the first courses taken by students in the program. The course objectives include assessing psychosocial aspects of the patient as related to the disease; developing and practicing appropriate professional communication skills; understanding the stages of grieving and the process of death and dying (See Appendix A). As part of the curricular intervention students who chose to participate in the project volunteered to donate their time working at the local hospice. I presented the project, as well as the alternative assignment, on the first day of class and described it in the course syllabus (See Appendix A). I explained that the community engagement project fulfilled specific objectives for the course, but it did not constitute the entire course or the only available option for learning. There were going to be other activities such as class lectures and discussion and other service learning projects which will be required in order to fulfill the class objectives.

The students who chose to participate in the engaged scholarship project completed the hospice volunteer orientation. The hospice coordinator offered the orientation and it was an important step in adequately preparing the students for their interaction with the hospice patients. After the completion of the orientation, the students

were paired with a patient with cancer diagnosis. They volunteered three hours a month with their patient for a total of twenty hours. During that time, the students were responsible for providing companionship and establishing a professional relationship with their patient, and working with the medical team to provide a continuum of care for the patient.

Caring Hands Hospice aims to offer good quality life for individuals enduring life-limiting illnesses, while also providing support for their caregivers, families and other members of the community. Their mission includes educating the community about end-of-life care, and palliative care philosophies and programs. They collaborate with other charitable organizations and causes related to hospice care and bereavement services.

Study Participants

Ten of the eleven students enrolled in the *Introduction to Radiation Therapy* course volunteered to participate in the project; Ann, Christi, Debra, Jayme, Kim, Karla, Laura, Leila, Margaret, and Sharla. They represent what Patton (2002) calls a purposeful sample or a specific group that has information about, or experience in, the issue that is guiding the study. The selection criteria to participate in the study included: acceptance into the radiation therapy program, no reported loss of a significant loved one in the last six months, and providing signed consent to participate. Only one student, Sam, participated in the alternative project. Sam was disqualified from participation because of the recent loss of her grandmother. Per Caring Hands Hospice rules, individuals cannot become volunteers if they have had a recent death in their family. The majority of the students had little to no previous exposure to patients or family members diagnosed

with a terminal illness or indicated that this occurred a long time ago when they were very young. In an attempt to protect students' identity, specific demographical information such as age and ethnicity is not given due to the small sample size. The small sample and the similarities amongst the participants is a limitation of this study.

Data Collection Procedures

The literature explains that qualitative data can be generated using a variety of methods such as observation, interviews, artifacts, and documents (Charmaz, 2006; Patton, 2002; Merriam, 2009). In the study, data collection sources included: guided written reflections, interviews, documents, researchers' log, field notes, and course evaluation.

Guided Written Reflections

Written reflection is a key pedagogical ingredient in knowledge acquisition and was particularly important for the students during the implementation of the engaged scholarship project (Domangue & Carson, 2008). Throughout this project, written reflection was an ongoing process that allowed students the space to ponder the experience and understand how knowledge learned through their volunteer work correlated with their work as a future radiation therapist.

Reflection is a tool that allows for, "purposeful consideration of an experience based on the specific learning objectives" (Domangue & Carson, 2008, p. 348). As the class instructor and researcher, I provided the students with scenarios and specific questions that guided their thought process and at the same time assisted them to think not only about what they were experiencing, but to seriously consider their practice while

volunteering, and how interactions with their hospice patients correlated with their work as a radiation therapist.

Guided written reflections on their experiences allowed students to thoughtfully analyze their impact on the community, and understand that this one hour a week time commitment on their part, was exponentially more important for the patients they were encountering. Through the reflective process, students documented the completion of many of the classroom objectives this project set forth to provide; students recognized the unique psychosocial needs of terminally ill patients and transferred that information to their cancer patients in the clinical setting. The written reflections also documented the development of appropriate professional communication skill with patients, families, and medical professionals. These skills were further established as students reflected on positive and negative interactions they encountered in the hospice and clinical settings and identified how these interactions affected the patients.

In addition, students reflected on gaining a better understanding of the stages of grieving, and the process of death and dying as their relationships with their patients developed, and they learned how the disease has personally affected them. In writing about these experiences, students not only had the experience, but spent personal time critically considering their feelings about the interactions with their hospice patient, and reconciling preconceived notions they initially possessed about terminally ill and elderly patients. These written reflections transferred to class discussions and gave deeper meaning to our work in the classroom.

Throughout this experience, reflection also served as an important tool in the development of critical thinking skills or using this newly acquired knowledge to better

understand, empathize, and communicate with future patients. Turley (2009) states that “reflection can be used to develop this ability [knowledge transfer] by encouraging learners to consider what they have learned from their experiences, generalize from particular experiences and then apply the knowledge to solving new problems” (p. 67). Throughout the semester students reflected on their experience and on how this experience altered the way they will work with patients in the future as professional radiation therapists. In using the knowledge acquired to examine the roles of a radiation therapist and gain a greater understanding of the situation cancer patients are enduring, the students mastered the course objectives independently and deeper than if taught in the classroom.

The students completed a total of five written reflections, which took place on a monthly basis. The first written reflection addressed students’ past experiences with hospice and terminally ill patients, and so provided me with information on the background and prior knowledge that each student brought to the experience. This reflection also allowed me to measure growth throughout the semester as it served as a starting point to understand students’ anxiety, preconceived notions of hospice patients, and fears before meeting their assigned patient.

The next three guided reflection entries examined students’ present experiences participating in the research project. These three reflections showed how the experience was progressing for each student, described their interactions with their patient, how they were feeling about their exchanges, and students began discussing injustices they saw in the interactions between their hospice patient and the medical professionals caring for

them. This allowed the students to begin making connections between the project and their future work which was the goal of the final reflection.

The final reflection focused on what the students took away from participating in the engaged scholarship project and how they plan to use this information in their future practice as a professional radiation therapist. In this reflection students discussed struggles their patients expressed about healthcare providers not listening to their needs. This made the students begin to look closer at the radiation therapists they were currently working with and realize that often the cancer patients' needs were not being adequately met. The students then reflected on how they will use this experience in their future role as a healthcare professional.

Interviews

The individual student interviews were an important aspect of this project as it allowed the students to verbally express their experience and knowledge they were taking away. Interviews, as described by Charmaz (2006) give the researcher "an in-depth exploration of a particular topic or experience" (p. 35) from the perspective of the one who had the experience through a purposeful conversation. The conversation I had with each of the students at the end of the project allowed me to gain a better understanding of their experience, how their experience lead to knowledge gain, and how they were planning on using this knowledge in their future practice.

Individual student interviews followed a semi-structured format which Merriam (2009) describes as a more flexible form of interviewing where the researcher knows the questions needing exploration, but the interview is more like a conversation where question order and wording is not exact. When going into the interview I had a specific

set of questions to ask each student, however, when asking the questions I did not stop the student from speaking freely and venturing on into other topics. Many times they answered several of the questions even without me asking. This allowed me to further explore their statements and ask follow up questions that were not pre planned but came about during the interview process. Interviewing each of the students who participated in the engaged scholarship project also provided me with the room to ask questions about their learning experiences and to expand on their written reflections. Prior to each students interview I re read their written reflections and formed three to four individual questions specific to that student's journey. This allowed me to personalize each interview and have them expand on information they had already provided and led me to a better understanding of the students' experience. These semi-structured open ended interviews lasted anywhere from 40 to 60 minutes, and took place in my office. I also asked each student if I could email or call them if I needed to ask follow up questions when I was writing up the findings. The students participated in the interview after they knew their grade for the class and grades were posted.

Documents

Documents provide valuable data during the data analysis phase as they are a tool that can be used to cross check and verify findings. Merriam (2009) defines documents as, "a ready-made source of data easily accessible to the imaginative and resourceful investigator" (p. 139). In this study, document utilized included: Course syllabus, lesson plans, Caring Hands Hospice related documents such as the orientation agenda, handouts, patient information sheet, volunteer log, Caring Hands Hospice mission and volunteer description sheet.

These documents were important because they help inform different aspects of the implementation of the project. For example, one important document is the patient information sheet. In Chapter Three we will learn a patient's identity was mistaken causing confusion and discomfort. The volunteer log was collected by Caring Hands Hospice documenting how often students were visiting their patient and what was occurring during those visits. The Caring Hands Hospice volunteer description and mission statements provided the students with a clear view from Caring Hands Hospice what was expected of them, and what their roles as a volunteer entailed (See Appendix B). The course syllabus outlines the course and provided a timeline for the semester which described the learning objectives and how those objectives will be met through projects and course content.

Researcher's Log

In order to stay engaged and focused throughout the semester, my researcher's log proved to be a valuable tool that allowed me to reflect on my own personal thoughts and feelings of important themes as the project progressed. It also kept me focused on how to best incorporate what I was reading and hearing from the students in their written reflections and conversations, into the classroom material, in order to gain a deeper understanding of the students' experience. The researcher's log according to Glesne (2011) is used to record ideas, reflections, hunches, and notes about patterns that seem to be emerging through the researcher's reflection. In the researcher's log I started the analysis of the students' educational gains, key points during the orientation which needed further reflection, ideas to further explore during class discussion, and critical events that happened during class time. This was a beneficial tool during the analysis

phase as I was already analyzing and making decisions in my researchers log about what I understood from my experience about the students learning, and it helped me stay focused on those themes in the students' data.

Field Notes

Field notes are written documentation of what occurred while the researcher is in the field. Glesne (2011) explains that field notes are more than simple observations of people, places, events, activities, and conversations, they contain detailed accounts of the physical location, time, who was involved, and interactions that occurred (Patton, 2002). During this study, field notes provided an accurate account of important events as they took place. In a field notes journal I documented what I saw, heard and observed while students were in the field and in our subsequent classroom discussions on their experience. For example, at the volunteer orientation, as “participant as observer” I documented the agenda, students' reactions to the orientation topics, questions they asked, and my perception of the students' attitude and response during the project. Later, these notes allowed me to reflect about the learning that took place as a result of the implementation of the study and these notes were vital in providing the detailed account of the project in Chapter Three.

In the classroom, because I was leading the class, I could not conduct myself as “participant as observer.” Because of this when teaching the class I listened to the students' conversations and discussions. While listening I would jot down notes of important ideas said by the students and when critical events arose. After class I would immediately go to my office and document the incident or the topic in my field notes journal.

Data Analysis

Data analysis was an ongoing process throughout this project, as the data were constantly reviewed and analyzed as they came in, which Merriam (2009) describes as ideal in qualitative research. For example, I analyzed the students written reflections on a continual basis. As I read each individual reflection I began noting and highlighting important concepts or themes. Saldaña (2009) describes this as coding which is, “most often a word or short phrase that symbolically assigns a summative...attribute for a portion of language-based or visual data” (p. 3). I coded each student’s set of reflections and made a list of codes. I then joined the student’s lists of codes together to make a list of all codes for that particular reflection. With these codes I built a matrix in order to cross compare. Merriam (2009) advises that the researcher reviews all the documents and begin grouping codes together that seem to align. I used the codes matrix in order to look for like themes creating grouped codes from similar ideas. From these grouped codes, I then created a new code that encompassed the idea represented by the multiple codes, or performed analytic coding (Saldaña, 2009).

As I was coding, it was important for me to constantly remind myself of the research questions in order to keep focused and reduce data. I did allow myself to stay open to unexpected findings, and if emphasized by multiple students, explored this unforeseen idea further. Taylor-Powell and Renner (2003) also advise to look out for “countervailing responses” or responses that are opposing what the majority of the data find. This was done in order to identify tensions in the data.

Each of these steps were completed prior to the student’s individual interviews so that I could explore these themes further during the interview and ensure I was not

misrepresenting data. I then interviewed the students and immediately transcribed the interviews while it was fresh on my mind. Once all data were converted into text I began to code them just as I had done with the written reflections, first individually, then cross comparing them and grouping similar themes together. Next, I analyzed those themes and began constructing my findings.

Initially I wanted to organize study findings under the tenets of engaged scholarship as defined by Boyer (1990) since this is the theoretical framework guiding the study. I quickly realized that the tenets of engaged scholarship (providing a service to the community, reflecting and discussing in order to enhance student learning, teaching civic responsibility, and supporting community development) are interwoven. There is not a clear cut distinction among the tenets allowing for me to organize study findings in this manner.

The next step was to go back to the research questions and answer them making sure that the tenets of engaged scholarship were at the center of the themes presented in Chapters Three and Four, which report the study findings. The questions fell into two categories: a) describing what the engaged scholarship project looks like within the boundaries of undergraduate Radiation Therapy Program, and b) presenting the students educational gains while participating in the project and how they are going to use this experience in their future practice. Because of this, Chapter Three describes the context of the study answering the research question: What does the implementation of an engaged scholarship partnership with a local hospice look like within the boundaries of an undergraduate Radiation Therapy Program? Chapter Four presents the findings answering the research questions: How does this experiential learning project influence

the student's view of the roles of the radiation therapist? And how does this experiential learning project impact the development of communication and empathy skills in the radiation therapy students?

In writing up the findings (Chapters Three and Four), I used narrative analysis in order to tell the experiences that the students, and intentionally I presented them from their point of view. Creswell (2007) depicts uses of narrative analysis in qualitative research as, "gathering data through the collection of their [the participating students] stories, reporting individual experiences, and chronologically ordering the meaning of those life experiences" (p. 54). The students' class participation, written reflections, and their responses during the interview and volunteer orientation provided a wealth of data that depicted their journeys through participating in this study, demonstrating their apprehensions, overcoming barriers, building relationships and incorporating what they saw in the hospice practice into their clinical environment, which were all unique experiences.

In addition, Connelly and Clandinin (1990) describe narrative analysis as a "study of the ways humans experience the world" (p. 5). In using narrative analysis I presented the findings by using direct quotes and vignettes with students' responses. It was my job as the researcher to primarily listen to what the students were saying and use their voice to present the findings which Connelly and Clandinin emphasize will add rigor to the research.

In order to further ensure credibility of the study findings, Merriam (2009) suggests triangulating the data in order to make certain that findings are more than just chance, and not the researcher's analysis of the data. Therefore, I corroborated findings

by looking at commonalities and differences in several data sources. I also used data that repeated and that were present in a large amount. In addition, when presenting study findings, Denzin and Lincoln (2005) explain that triangulation is necessary in order to support statements and ensure the correct interpretation is made. Again, in the study, using multiple data assisted me with this purpose. In reporting the findings, students' stories are told from varying data sources, from written reflections, in class discussions, individual interviews and field notes. In triangulating the data, I am demonstrating the rigor of the study which will build credibility and trustworthiness for the reader.

Building Trustworthiness

Denzin and Lincoln (2005) emphasize the importance of credibility, transferability, dependability and confirmability in qualitative research in order to account for the rigor of the research. Proving credibility increases usefulness of the study by ensuring to the reader that the research was conducted ethically and all biases and limitations are laid out up front. Denzin and Lincoln (2005) provide a list of questions helpful in establishing credibility. Some of these questions are: (a) are the data sufficient to merit the researcher's claim? (b) are there strong logical links between the gathered data and the research's argument and analysis? and (c) has the researcher made systematic comparisons between observations and between categories? When writing up study findings, I constantly referred back to these questions made sure that the themes and findings that I was claiming were substantial and significant. Therefore, I backed up themes with multiple student responses and from multiple data sources.

I also wanted to make sure the findings were transferable, or could be reproduced in other similar educational settings. Merriam (2009) describes transferability as the

ability to apply study findings to other similar situations and settings. This was done in this study by providing the reader with a detailed description of the setting, students' response to the implementation of the study, and the overall findings. In providing these details, the reader can infer and make appropriate decisions on what transfers to his or her educational setting.

Ethical Issues

A few ethical issues were present prior to, during and after this research project. One of my main concerns was to ensure the students protection and privacy and to take care of the students emotional needs whenever they came up. Prior to the engaged scholarship project being incorporated into the curriculum, I followed the guidelines to obtain IRB approval. Students' anonymity and confidentiality were protected at all times throughout the project as pseudonyms are used in reporting the findings and will be used in future academic presentations and publishing efforts. Exact description of the hospice where this study was conducted is not provided either.

I made sure students were aware that participation in the project was voluntary and that there were no repercussions for choosing the alternative assignment. They each signed an informed consent to participate, and also had the right to withdraw from participating from the project at any given moment.

During the project, it was my responsibility as the instructor to ensure the students emotional needs were being taken care of. Caring Hands Hospice provided counseling, support, and training to the students at all points during the project in order to ensure they were emotionally fit to participate in the project and they grieved appropriately in the case of a death. I was also available to talk with the students about issues they were

having, uneasiness, or feelings of grief they experienced if/when their patient passed away. For example, in the next Chapter I will explain a patient passing away as one of the critical events in the study. Since this happened the semester after the study, and I was still the instructor for this group of students, I was able to assist the student and her classmates to assimilate and deal with this important occurrence.

Another ethical issue came as students were discussing in class; instances where they witnessed mistakes or neglectful treatment occurred while they were at Caring Hands Hospice. For example, critical event #3 in the next chapter, discusses an instance where a patient was misidentified leading to confusion. As the instructor, it was my role to turn each of these situations into teachable moments. I asked the students to describe the experience, reflect on the cause of the incident, and understand how to prevent the problem from occurring in the future. Remaining professional in these situations was imperative so all students could learn from the experience.

The authority role I held as the instructor of the course also posed ethical issues as I was the one conducting the study. In order to prevent students from feeling the need to like the project and only report the positive to me, I consistently reminded them that I wanted and appreciated their honest thoughts. In creating a space of mutual respect and trust, I developed a relationship with the students that allowed for open dialogue of both the positive and negative aspects of the project, and both are reported as study findings. I also did my best to provide for students learning needs and not just focus on collecting data for the study. I was a teacher and a researcher and tried to keep a balance between the two.

Delimitations to the Study

As explained before, the study was implemented within the boundaries of a Radiation Therapy Program and within the pre-existent curriculum of an Introduction to Radiation Therapy Course. That is to say, the potential participants for the study were a small group of students which in turn did not allow for diversity of participants. Most of the students in the Program and in this course are females in their twenties and Caucasian. There were no male students in my class and therefore the perspective of the male radiation therapy student is not included in the study.

In addition, the study did not encompass the perspective of the patient. I did not collect any data on issues related to the hospice patients assigned to the students participating in the engaged scholarship project. The cultural aspect and the practices of family members requesting their relatives to receive hospice care are not included in the study either.

Finally, the sustainability of the project and the amount of time that needs to be invested in its implementation are characteristics that may not look appealing to other instructors. Finding the community partner that is willing to open their doors to students and a similar academic project can also become an issue when trying to do a similar project for the first time. The instructor needs to build these relationships and create these partnerships on purpose.

Summary

This Chapter provided a detailed description of the overall research study design for data collection and analysis in order to claim study findings. It provides the reader with a greater understanding of the project; the researcher, theoretical framework, setting

and participants. Methods I used to collect data were identified and the steps I took to analyze the data were laid out in order to prepare the reader for the information that will appear in subsequent chapters.

The following Chapter provides a comprehensive description of the engaged scholarship research project as it is implemented into the Introduction to Radiation Therapy Course. This will allow the reader to make decisions as to what to transfer into their own curriculum and obtain appropriate results.

CHAPTER THREE

CONTEXT OF THE STUDY AND CRITICAL EVENTS

The present Chapter provides a description of the context for the implementation of the engaged scholarship research project. The main goal is to provide answers to the research question: What does the implementation of an engaged scholarship partnership with a local hospice look like within the boundaries of an undergraduate Introduction to Radiation Therapy program? Providing a description of the context of the study will “afford the reader the vicarious experience of having been there” (Merriam, 2009, p. 258). This in turn will assist the reader in making judgments, make decisions on what to transfer, and estimate the value of the study for their specific educational setting (Patton, 2002). Therefore, the detailed explanation of the context of the engaged scholarship project includes a description of the students in the introductory radiation therapy course, a detailed account of the main events of the volunteer orientation, a description of a typical lesson in our classroom in the Radiation Therapy course, and a summary of the main critical events that took place throughout the implementation of the study.

Description of the Students

The Introduction to Radiation Therapy course consisted of eleven students at the time when I was implementing the study. However, only ten of them qualified to participate in the study and the ten of them volunteered to participate in the engaged

scholarship study. All of the students were female, and they ranged in age from 20-30 which is consistent with the student demographics attending undergraduate studies on campus. The following paragraphs provide a short description of each student as related to their previous experience with hospice, their professional experience if they had any, and the loss of a loved one if applicable. I am listing their descriptions in alphabetical order and all the names assigned are pseudonyms.

Ann: She has worked in the medical field for the past seven years and reported to feel confident in her patient communication skills; however, she has never had to work with individuals in the final stages of life. She had an uncle who passed away from a battle with cancer, but she remembers little of the experience because she was so young and her parents sheltered her from the experience.

Christi: Her only experience with death and dying is a great grandmother who passed away when she was very young. She indicates that she does not know how she will react to this experience, but is excited to hopefully help someone through a difficult phase in their life.

Debra: She has had no personal experience with death; however she became a certified nurse's assistant as part of previous course work. Debra is a self-proclaimed non emotional person and is not concerned about participating in this project, or becoming overly attached to her patients.

Jayne: Has had no previous experience with terminal illness or death. She has only worked in retail and has no professional experience with terminal illness. Consequently, this is a whole new experience for her.

Kim: She has had a few family members pass away. One of significance that she remembers is her aunt who died of Lou Gehrig's disease. Kim said she was hesitant at first to become a hospice volunteer because she has a tendency to become very attached to people and she worries about how she will cope with befriending someone in a terminal state.

Karla: Has had no previous experience with death. Her grandmother was diagnosed with breast cancer when she was young; however her parents shielded her from the severity of the situation, and she was unaware of how sick her grandmother was until she passed away.

Laura: Has had a lot of previous experience with death. Her grandmother, grandfather and friend were all on hospice at some point in their lives and she recognizes the importance hospice played in their final days and in the grief her family experienced afterwards. She is excited to work with hospice and has done a lot of volunteer work in this field already.

Leila: She has not directly lost anyone close to her, however she has been trained as a certified nurse's assistant as part of a course taken in a previous class in which she worked in a nursing home.

Margaret: Has had no personal experience with grief in her family, besides her mom who was diagnosed with an early stage breast cancer when she was a teenager. She understands that while her mom's prognosis was favorable, the stigma that goes along with cancer made her understand what a life changing event a cancer diagnosis is.

Sam: She was disqualified from participating in this learning experience because of the death of her grandmother just two months prior to the beginning of the semester. Sam was automatically given the alternative assignment.

Sharla: Has had no previous experience with death. She indicates that she is a very emotional person. Sharla expressed that even though she has not personally experienced grief, she joined the field of radiation therapy in order to bring light to patients during their darkest times, and this experience will give her another avenue to do so.

In summary, professionally, all but one student had no employment history as a healthcare professional prior to entering the radiation therapy program; however, two students participated in a class project previously in which they became certified nurse's assistants. During the second guided written reflection I asked the students to tell about their feelings when they decided to become a hospice volunteer; the following is a summary of their answers. All of the students indicated at the initiation of the engaged scholarship project that they were nervous but excited about working with hospice patients. They explained that they were nervous because they had had little interaction with this type of patients and were not sure of the patients' expectations. Several students also expressed in their second written reflection and verbally during the volunteer orientation that they were concerned about becoming attached to the patient and were not sure how they were going to feel emotionally and psychologically when that patient passed away. The students also indicated in their second reflection that they were excited to participate in the project because these patients represented a major population with whom they were going to work in the near future as radiation therapists. Most of the

students believed the engaged scholarship project had the potential to develop their experience and confidence.

Account of the Volunteer Orientation

The volunteer orientation was the student's first learning experience participating in the engaged scholarship project. It took place at Caring Hands Hospice from 10:00 am to 3:00 pm and lasted two consecutive Fridays at the beginning of the academic semester.

Prior to attending this orientation and as a requirement to become volunteers at Caring Hands Hospice, the students completed a volunteer application and provided appropriate documentation. The Caring Hands Hospice volunteer coordinator, Kathy, prepared the agenda for the orientation, was the facilitator, and invited a variety of guest speakers for the two-day orientation.

The first Friday agenda included a review of what hospice was, who was eligible to become a volunteer, the needs of hospice patients, the Health Insurance Portability and Accountability Act (HIPAA), the circle of care and where the volunteer fit into the continuum of care for the patients. The first day of orientation concluded with a discussion of tasks a volunteer could and could not perform and the importance of documenting appropriately each visit in a timely manner. Once the session was over, many students stayed to ask specific questions to Kathy and the hospice volunteers and voice personal concerns.

During the second Friday of orientation, the students completed a mock time sheet for their first volunteer visit and received instructions on whom to call during an emergency. The director of Caring Hands Hospice came to express appreciation and thank the students for volunteering, and explained the positive impact volunteers have on

patients. An on-call nurse, Patricia, discussed the importance of respecting the patient at all times and as she explained it, “keeping the humanity” in this work. All names used in this Chapter are pseudonyms.

At the conclusion of the orientation, each student received a certificate of completion of hospice orientation and a goody bag with their patient’s fact sheet informing them who their patient was, the patient’s diagnosis, location and contact information. The students were instructed to contact their patient within a week and they were now officially hospice volunteers. The majority of the students indicated verbally at the end of volunteer orientation, and I noted in my field notes journal, that they were “excited and nervous about meeting their patient for the first time, but felt prepared and ready”. The following paragraphs describe the main events that took place during the volunteer orientation and that had an impact on the students’ learning and our class discussions once they started their practice as hospice volunteers.

Understanding the Purpose of Hospice

Kathy spoke to the misconceptions that the general public holds about hospice and the barriers this presents to patients. Next, she asked the students about their perception of hospice. As a result, the majority of students indicated that they did not have previous experience with hospice, and only five had ever heard of hospice before this class. For example, Jayme stated that:

When I found out we would be volunteering with hospice patients, I didn’t really have a reaction because I didn’t know anything about hospice. I have been fortunate enough to go through my life up to this point without having a family member or close friend being diagnosed with a terminal disease, and so I have not

had a lot of experience communicating with patients and no experience communicating with end of life issues.

Kathy appreciated Jayme's honesty and asked her about possible barriers people may see against utilizing hospice or getting involved with the organization. Jayme thought for a while and then answered, "probably just the association with death, and not wanting to think about such a hard subject."

After that, Kathy talked about the fear of death specifically in America as well as other barriers of hospice that she had witnessed working in the field. Here is what I noted in my field notes; Kathy explained that:

As Jayme said, a person's unwillingness to acknowledge death is a huge barrier, as well as the thought that if a patient goes on hospice they will receive no more medical attention, as well as past experiences people have had with hospice which may have been unpleasant. Many patients do not want to be a burden to others; the idea of being on hospice and having others look after them...they believe is a burden on them.

As the discussion continued students began to gain a greater understanding of the purpose of hospice and the services that are provided. After learning more about hospice, Kathy and I wanted the students to hear from personal experience what it was like being a hospice volunteer, and working with terminally ill patients on a daily basis.

Learning from Other People's Experiences

Speakers for the first day included a hospice nurse, Sandra, who discussed her role in caring for hospice patients, what she perceived as the needs of the patient, and the benefits that volunteers provided to the lives of the patients. Two of Caring Hands

Hospice volunteers, Jessica and Nathan, also came in and discussed their experiences as volunteers. In sum, guest speakers brought with them their experience working with terminally ill patients and the main purpose for their presentations was to help my students better understand the needs of hospice patients and how the hospice care team and volunteers worked together to ensure that the needs of the patient are fulfilled.

Jessica provided the first relevant example while explaining that she became a hospice volunteer, for the first time, after her mother died. The following excerpt comes from notes I took during the first Friday at the volunteer orientation session. Jessica said that:

I didn't feel I was prepared for the passing of my mother. I was so sad and angry that she was being taken away that I didn't relish the time we had left together.

Volunteering allows me, in a way, to get that back and help other families realize that their loved one is still living now and the importance of taking the time to appreciate them. It has also made me understand that death does not have to be ugly; it can be a relief and a blessing. It is a sacred and beautiful thing to be a part of someone's passing.

Jessica's willingness to openly share with the students' the harsh reality she had experienced with her mother's passing and how she is trying to make up for it by helping others encouraged the students to reflect on their current relationships. For example, one of my students, Kim in her fifth reflection stated that:

I would say that this hospice project had definitely helped me to really pay attention to the people in my everyday life. It felt like before I was always consumed with day to day things I needed to get done on my checklist and so I missed a lot. Sitting down and really listening to the stories of how individuals

regret getting caught up in their own life and not taking the time to value relationships allowed me to slow things down a bit.

Jessica's story of the death of her mother also affected Christi, in her second reflection she wrote:

Some of the stories scared me a little because I have never really had to deal with death. All the stories made me start thinking about the possibility of losing a loved one. This impacted me briefly, but then I realized I don't have the power to change the course of life so I just need to embrace every moment of it.

As each of these students are currently young and healthy and have had little experience with the loss of a loved one, Jessica's example of how losing her mom served as a springboard for the students to critically self-reflect about their own life and if they currently take each day for granted. Mezirow (2000) in discussing his transformational learning theory implies that transformation cannot take place without critical self-reflection of the experience. This learning experience allowed Christi and Kim to listen to others' stories who had suffered the loss of a loved one, understand how they regret not living in the present, and internally decide to make a change in order to live life with no regret.

Advice on Learning to Communicate with Patients

Another important topic discussed during the orientation session was "how to initiate a conversation on the first day with your patient". The guest speakers who were also volunteers at Caring Hands Hospice gave ideas of how to communicate with a difficult or non-responsive patient. For example, Nathan stated and I noted in my field notes:

Several times I have had patients that almost seemed like they did not want me there to visit, but Kathy insisted that the family wanted the patient to have a volunteer. So what I do is just think about what I could offer. I am a musician, so with this particular patient, I brought in my guitar and just started playing. It was amazing how the sound seemed to relax him and from then on every time I came in and he saw I brought my guitar he allowed me to stay.

Jessica had had similar situations working with patients that seemed non responsive when she came in to visit, but that began to open up after she showed her dedication to them. I noted in my field notes her example:

It doesn't bother me if the patient I am visiting either can't or won't verbally speak to me. Sometimes they may just feel comforted knowing someone is there with them and has taken the time to come and see them. Every time I go visit these patients I just bring a book or something to keep me busy, I pull up a chair and just sit with them. Even if they are asleep I feel they are comforted by the presence of someone there. Many times after doing this, the patient has opened his/her eyes and given a little bit of a smile to me. That is how I know my visits are special even if it isn't told to me.

The following excerpt comes from my field notes and reflects what Kathy shared with my students to complement what the guest speakers have shared:

Speaking is also very important when working with patients who are terminally ill. Many believe that if the patient is non-responsive then what is the point, but it has been proven that hearing is the last sense to go. Just because your patient does not respond back does not mean you are not making an impact.

The topic of communication with all types of patients was important in order to build students self confidence in their own communication skills, and present them with ideas of how to begin building a relationship with their hospice patient. Leila asked after Jessica and Nathan shared their stories, and I documented in my field notes:

So what is the best way to initiate the conversation on the first day? Are we going to know some background on the patients' likes and hobbies? I am just unsure as to what to say and I don't just want to walk in and it be uncomfortable.

I then documented Jessica's response to this question in my field notes, she responded:

Before you go to visit with her you can call Kathy and the nurse that is assigned to your patient and talk with them about your patient, if he or she is responsive or not and if they have any likes or dislikes that you can bring up. I always feel on the first visit it is just important to go in there, introduce yourself and then ask the patient if it is okay if you stay and visit with them for a while. Then what I do is do a quick survey of the room, if you see a picture somewhere, pick it up and ask about it. It is typically a beloved family member and they usually love telling all about their family.

This answer, I noted in my researchers log, seemed to ease Leila and the other students anxiety, and many of the students then seemed excited about learning who their patient was, and if they had anything in common. The topic of non-responsive patients however still seemed a fear to them. Christi stated in her individual interview:

I was nervous about this project after volunteer orientation because I was really scared I might get a non-responsive patient and I have never really had any communication with a non-responsive person in my life. After meeting my

patient for the first time and realizing that my patient has a very sedentary lifestyle and does not like to get into deep conversations I had to reevaluate my approach and expectations. In the end though, I realized that although I didn't get to have in depth conversations with my patient, she was very thankful for the times I came to see her... From a radiation therapist's standpoint, I can see the difference you can make with just a few caring words.

The American Society of Radiologic Technologists (ASRT), 2009 emphasizes the importance of improving both the quality and quantity of communication in the field of radiologic technology. This means that as a radiation therapist, it is our responsibility to communicate with our patient and patients' families however it is appropriate. Students learning to communicate effectively with all types of patients while still in the educational setting will greatly enhance their effectiveness after graduation. As Greathouse and Dowd (1996) suggested, there are some concepts however that cannot be learned in the classroom. In incorporating this experiential learning project into the classroom, students were able to practice this new skill of communication with a variety of patients in a safe situation where Kathy and I were both monitoring their interactions, and students were able to retest this new skill within the clinic, in order to solidify the new knowledge (Merriam, et al., 2007). With the students gaining a greater understanding of how to appropriately communicate with a variety of patients through this experience, they will be better prepared to care for the true needs Stillion and Papadatou (2002) indicate are missing in many healthcare professionals; the ability to move from curing to caring and focus on the patients' needs and not the job needing to get done.

The Power of Touch

The coordinator, Kathy, also addressed the importance of touch as a need many terminally ill patients have; specifically she explained that verbal communication is important but it is not the only form of communication. Kathy explained that touch is powerful and many patients benefit from touch provided by caregivers since, for different reasons, they do not have the opportunity to get it from their families. Here is what I noted in my notebook about Katy's presentation:

Touch allows the patient to feel connected; connected to someone else, and to the world that they often feel isolated from. It has been my experience that family members and friends are often worried about being close to their loved one as they are dying, worrying that touching them may cause them more pain, but in fact, patients long for the comfort of touch...

These comments, and the experience she had with her patient allowed one of my students, Ann, to reevaluate preconceived notions she had about terminally ill patients.

Ann stated in her fourth reflection that:

I am realizing that my patients may not be as fragile as I believed. I have been an x-ray tech for many years and when an elderly patient came in I would see them as these fragile individuals that I felt bad for having to lay on the table. I always thought I needed to be super careful as to not break anything, but they are not going to break as easy as I think, and what if the touch I offer as a healthcare provider is the only one they receive all day?

In the clinic, working with my radiation therapy patients, I will remember this.

Intentional touch, to provide comfort, can show them that I care and show them that they are not just a patient but that I truly care about them.

Learning to communicate effectively with terminally ill patients, as with cancer patients in the clinic, requires a unique combination of confidence and empathy. Through the volunteer orientation, students gained a greater understanding of the importance of learning to communicate effectively with patients who struggle to converse in the conventional form. In the past I have covered communication including non-verbal communication and the power of touch through lecture and had students' role play. In utilizing Kolb's (1984) experiential learning theory in which students learn the course content through experience, reflect on that experience and form abstract concepts of the meaning, and then test out the new knowledge in other situations, the students were able to build their confidence and knowledge about the types of communication utilized in the healthcare field, practice those skills and reflect on their meaning, and then use the skills in the radiation therapy clinic. In building these skills, students will be better prepared to build trusting relationships with their patients. This will provide a more satisfying experience for their patients.

Maintaining a Professional Relationship

Another important topic that Kathy discussed during the orientation was how the students planned to maintain a professional relationship with their patient and how they were going to take care of themselves emotionally when their patient passed away. One of the students, Kim, said that this topic made her feel fearful. She indicated that she was

nervous about the possibility of becoming so attached to a patient and then feeling depressed when they passed. Kathy stated and I noted in my field notes:

The main reason people who work in this field last as long as they do is because they have learned to separate the loss of their patient from a personal loss. Yes, you will get very close to some patients through this experience, and in your work as a radiation therapist, but you must learn to disassociate this with your own life, grieve for that person or do something to acknowledge the loss, but don't carry each loss with you.

After this Kathy asked for each of the students to talk about the way they plan to deal with stress and emotions both in their clinical work and in their time working with Caring Hands Hospice. I wrote in my field notes the students responses, in summary, the students liked to exercise to relieve stress, talk with their friends and loved ones, and play with their pets.

Kathy explained that in identifying coping mechanisms prior to experiencing a loss, healthcare workers can learn to overcome the loss quicker and healthier. Kim reflected on what she took away from this activity and experience about coping in her final reflection, she explained:

I realize that in the past when I have struggled with someone growing old or dying of an illness the hard part was seeing them deteriorate, and not being the same person I had always known, you know accepting them in a new state. Now I realize that these patients and the patients I will work with in the future, they have always been this way to me, so I know going in that this relationship is short term so value it for what it is and make as big of an impact you can. While their

passing still affects me, I have learned to not let the loss affect other aspects of my life.

Job burnout is exceptionally high in healthcare fields in which practitioners work with terminally ill patients if the healthcare worker does not learn to appropriately cope with grief and begin setting emotional boundaries with patients. Rich (2005) indicates that the death of a patient to a healthcare provider can be a constant reminder of a personal loss, cause anxiety over future losses, and heightening their awareness of his or her own mortality. The engaged scholarship experience volunteering at Caring Hands Hospice provided the first step for beginning to understand that the loss of a patient, while it may feel painful, is not a personal loss, and that while it is important to become compassionate with patients, in the end they are patients and we have to stay professional. This realization will hopefully help the students to continue building their professional identity.

Considering the Patient's Psychosocial Needs

To Patricia, the on-call nurse, "keeping the humanity" meant constantly reminding herself that even though this was a job, these were real people and she never wanted to take that for granted. She expressed the importance of treating people with dignity and that healthcare professionals must leave their own baggage at the door and focus on meeting the physical, emotional and psychological needs of the patients. This coincides with studies by Laakkonen, et al. (2004) and Oflaz et al. (2010) that indicated that the increased workloads were the reason for diminished interactions with patients by healthcare providers. Patricia stated that:

As a healthcare provider it is our job to leave what we have going on our life at the door and solely focus on the patients while on the job. I see so many healthcare workers in such a rush to get through their growing list of duties and more focused on getting out of work on time, that they neglect the emotional needs of their patients. For some patients, the only social interaction they have is with their healthcare provider, and so it is an important relationship to them.

Patients are going through a lot and they need someone there to be their advocate and look out for their needs first.

Through this experience, Laura began to recognize the multitude of psychosocial needs her hospice patients, as well as cancer patients in the clinic often have, and how the healthcare provider is often the only one that can take care of those needs. In her individual interview she stated:

This made me see that all of my patients have lives and families and so many things going on along with their treatment. Many of them want to put on a happy face for us, and don't want to ask for help. I witnessed in clinic a patient who was always happy and then finally broke down one day because it had all become so overwhelming. As she was talking I realized she was unaware of the different recourses available to her and I wanted to help her out. It also made me wonder what the unspoken needs of my other patients were.

In gaining a personal relationship with a hospice patient, Laura was able to see the patient as a whole person and recognize that they often have unspoken or unique needs. As the patients' healthcare provider Laura acknowledges that it is her job to take the time to understand all the needs of her patients. In her final interview she said:

Before this experience it was harder for me to recognize the needs of patients because I am independent and healthy and so I sometimes take for granted the things I can do and just assume that others can do the same. In seeing my hospice patients struggle to be heard by his nurses, I began to pay closer attention to my radiation therapy patients, I do not want them to have unmet needs just because I was not able to see the need and they did not know to ask.

Laura previously assumed that what she could do for herself, patients should be able to do. This is a common problem as documented in a study by Leo et al. (2009), the main barrier to healthcare providers is the lack of recognition of their patients emotional and physical state; their lack of empathy. In recognizing that patients undergoing radiation therapy treatments may be incapable of performing tasks that healthy individuals take for granted, Laura is now better prepared to empathize with and meet the needs of her future patients.

Listening as a Means of Learning and Gaining Empathy

Patricia then asked the students to pair up and discuss a significant loss they had experienced before. She asked one to share while the other partner simply listened and then reverse their roles. Twenty minutes later, the students reconvened and took turns to express the emotions they felt while listening to their classmate's story expressing their loss.

I was sitting next to Ann and Jayme and so joined their group and documented their story in my field notes. Ann told us her story as follows:

When I was thirteen my uncle was diagnosed with cancer, being that I am now thirty it is challenging for me to remember many details of the cancer. I am able

to remember some of the feelings that I had at the time though. One of the reasons it is so difficult to remember his struggle is that at the time my family thought it would be better to hide everything from us, instead of telling us what was really happening. My uncle lived at my cousin's grandmother's house, and when we would visit they kept him in a backroom of their house. I say kept because this is what it felt like to me. When my uncle started to get really sick I never saw him, I only saw a dark hallway that lead to that room. In fact it seemed like nobody really saw him, or even talked about his situation. I guess they acted this way because they thought it would be easier on everybody in the family to better cope with the loss. Before him we had never had anybody in the family be diagnosed with a disease and given such a short period to live. Being so young at the time, and having my uncle separated from everybody confused me. It seemed like they were locking him away from everyone. I remember seeing food come in and out but never saw him. This made me feel scared and it left an eerie feeling to even go into the hallway that led up to the room. I was never encouraged to go visit my uncle. Actually, I wasn't even allowed to go back there with him. The way my family handled the situation put a black cloud over everything on that side of the house and even after his death I never set foot in his room or even that hallway again.

Jayne, who has had no previous experience with death, was able to listen to this story and begin to understand the emotional impact death can have on loved ones. Jayne reacted to Ann's story during the group discussion. She stated:

I have never heard anyone discuss death so openly before and it makes me realize the hurt that many of our patients and their families must be going through. I think the toughest part of this exercise was to just listen and fight the urge to step in and offer condolences instead of letting them finish telling about their feelings. I am glad that as a therapist I will get the opportunity to help patients in this time and now realizing that listening to their concerns despite how uncomfortable they make me feel is what they need.

This activity allowed Jayme and other students to discuss and better understand the stages of grieving and the process of death and dying, as well as the impact death has on their loved ones. This teaching technique followed the idea described by Greathouse and Dowd (1996) “to become empathetic practitioners, students must learn how to put themselves in the patient’s place. They must learn to imagine the discomfort patients feel...the anticipation [patients] experience” (p. 1). More than putting the students in an uncomfortable situation, the activity helped increase their empathy for the person telling the story. This activity also gave them the opportunity to gain a better understanding of the importance of listening and fighting the urge to get out of an uncomfortable situation by consoling or reflecting the conversation. This was a meaningful activity as opposed to role playing in the classroom as it allowed the students to understand that listening is a difficult skill to grasp, but that patients and patients families are going to have emotional needs weighing on them, and listening to the stories and allowing the patient the space to vent concerns is vital to their acceptance of the disease.

In summary, the volunteer orientation was an important step towards initiating the engaged scholarship project. It laid the foundation for students to understand the needs

of hospice patients and the work they were expected to do as volunteers. It also helped address students concerns and relieve anxiety before meeting their patient the first time.

Our Classroom, Typical Lesson Outline, and Critical Events

As explained before, ten of the eleven students enrolled in the *Introduction to Radiation Therapy* course volunteered to participate in the project; Ann, Christi, Debra, Jayme, Kim, Karla, Laura, Leila, Margaret, and Sharla. As the class instructor and using practical knowledge gained through teaching this class before, I know that class routines include lecturing and students waiting for me to initiate class and the topic of the day; they take notes and participate when I ask questions or provide the space. The students in this class rarely are the ones initiating the lesson or providing direction to what topic to address in the lesson. Implementing the engaged scholarship project in this course provided the students with the opportunity to change class dynamics and expectations. This project assisted the students to become active learners and more self- directed taking ownership over their learning. Table 1 presents an outline of the new class structure and what the typical lesson looked like in our classroom (See Table 1).

Table 1: *Outline of a Typical Lesson*

Time	Lesson Segment	Content and Activities for the Lesson
10 minutes	Greetings	Students discuss their clinical experience from the day before and ask questions and the lesson starts.
10 minutes	Reflection on hospice experience	Students discuss their visits to Caring Hands Hospice and ask questions on handling scenarios in their previous visit.
25 minutes	Major topic	Main topic for the day, as outlined in syllabus. Clinical and hospice experiences are interweaved into the discussion and connected to the main topic of the lesson.
5 minutes	Class wrap up	Homework assigned/turned in. We review what is expected for next class meeting.

Each class followed the basic outline described on Table 1 above; each class period began with a **ten minute greeting** where students reviewed their notes, discussed their clinical experience from the day before, and asked questions about the previous class or upcoming assignments. Many times when I arrived in the classroom students were already talking and sharing their experiences; they were ready to start the lesson. They informally discussed incidences they had on their last visit to the hospice such as specific actions to take if their patient was asleep and they were not sure if they should wake him or her, and they discussed stories they learned from their patients. The students asked questions to all of us in class about how to handle situations they had encountered at Caring Hands Hospice.

The next ten minutes of class were dedicated to **reflection on the hospice experience** that I intentionally initiated in order to scaffold the students' understanding of the various important topics they needed to be learning. This strategy helped us in class to establish the connection between the hospice experience and course content, as well as the work the students were doing with patients in the clinical environment, and providing room for the students to become active learners while meeting their learning needs.

For the following twenty-five minutes the lesson transitioned into presenting the **major topic** of the day. As the instructor, I specifically asked questions related to the topic of the day in order to elicit examples of relevant experiences from the fieldwork the students were doing. Some of these experiences were topics they/I had just brought up in the initial discussion; other topics came from the student written reflections, or events I witnessed during field observations.

Finally, during the last five minutes, we had a **wrap up of the lesson**. I collected/handed out assignments and asked if there were any questions or topics the students wanted to discuss further. I also invited them to approach me outside of class with questions, comments or concerns via email or in person during office hours.

Oftentimes when teaching this course, when I entered the classroom students were texting, talking about their weekend or discussing what they did the night before. Due to the implementation of the engaged scholarship project, the students were engaged and invested in the course and they had a commonality that led them to have sincere discussions about the class and how the project was progressing. This happenings made this course unique.

During this course, when I entered the class, the students were often discussing issues they were having with their patient and giving each other advice before class. I heard the students telling stories of their patients, how talkative they were, how they spent their time, and issues they had encountered. One day for example, after Jayme's first visit with her hospice patient, she was concerned that her patient didn't want to talk and was concerned that her patient did not like her. Christi had the same patient; I documented Christi's suggestions to Jayme in my field notes:

The first time I went to see her she did not say too much to me either. I talked with her nurse and she suggested that I bring her some gum. She told me that she is not able to eat or drink a lot but she can chew gum and it moistens her mouth, then she will talk to you. I did this the next time I saw her and she seemed to brighten up. We discussed her favorite T.V. show and she told me all about her

children. It seemed like bringing her the gum showed her that you really wanted to get to know her.

After Christi told Jayme this, she seemed excited to go back and visit with her patient. She responded to Christi and I documented in my field notes:

Oh good, I was worried that she just didn't like me. I will definitely bring her gum next time and see if that works for me. She seemed like a very nice woman I just was not sure why she didn't want to talk more.

On another day before the students were let out for Christmas vacation, I heard Leila and Sharla talking about their plans for visiting the patient over the Christmas break. I documented their discussion in my field notes:

I don't want our patient to not have any visitors during the break [Sharla said] he is going to feel like we have abandoned him and he has told us how much he appreciates our visits and says that he doesn't really have any other people to come by. Why don't we make him a Christmas card after class and go and get decorations for his room. This weekend I will go up there and decorate his room and he will know that we are thinking about him even though we are going home for the holiday and so can't visit.

Leila responded:

That sounds like fun and I think he will appreciate that. I want to go with you to decorate his room. Plus I am from this area so I will be able to continue visiting with him during the break.

Listening to these students giving advice to one another and discussing how they can work together to better provide for the hospice patients allowed me to realize that this

project was not confined to this course, but was an experience that was embedded in the students' lives and they were taking their relationships and their role as hospice volunteers seriously. The following section will present a summary of the main critical events that took place through the implementation of the study.

Critical Events

Critical events are topics that surfaced while the project was underway and that enhanced the learning of the students by allowing them to personally experience a course objective and leading them to knowledge gain independently of me giving them the information (Whitmore & Crowell, 1994; Woods, 1993). Critical events bring about radical change in thought in both students and educators (Woods, 1993); they also mark the awakening of the students, a change in their attitude and behavior (Whitmore & Crowell, 1994). In our classroom, critical events arose when students were able to critically reflect on their practice, express their thoughts as connected to fieldwork and class theory, and when they were able to apply new knowledge. Sometimes, I decided an event was a critical event based on my previous teaching experiences when these events were related to concepts that were hard to grasp for the students in a previous class when I was not implementing the practice of engaged scholarship. For example, in the past, teaching the introductory course for radiation therapy, the students expressed preconceived notions about terminally ill patients that I was not able to tackle or address using direct examples that came from students' experiences in the field because they did not have those experiences. The following section will present the most salient critical events in chronological order.

Critical Event 1: Curative Treatment vs. Palliative Care

During the first day of volunteer orientation, Kathy addressed the misconception of having no medical attention after accepting hospice care. This topic became a critical event later in a class discussion and lead to a teachable moment. In this course, I introduce the topic and describe the difference between curative treatment and palliative care. I explain how the treatment rationale often differs between the two in a class discussion:

Curative treatment is with the intent of curing the patient of the disease and so doses are higher and the course of treatment is longer. For palliative treatment, the goal of radiation therapy is to provide pain relief for the patient, and so treatment set ups can be modified to better meet the patients' needs and the course of treatment is generally shorter so the patient can spend quality time with family and loved ones.

Throughout this project the students were provided with experiences that they were able to connect to the topic and be active participants during class discussion.

Debra explained in class and I documented in my field notes the following statements:

My patient has colon cancer but is still on hospice. I thought she received treatment and then when the disease continued to progress she went on hospice and that was it. I guess palliative care would be if she needed treatment for a bowel obstruction because of the tumor. The treatment would not cure the disease, but help manage the symptoms.

Another student, Laura, also commented on her preconceived thoughts about the difference between patients that are in curative treatment and palliative care.

Before I thought it [becoming a palliative patient] was the patient giving up, that they were given treatment options but just that their mindset is that they are not willing to try. Now I realize it is more about acceptance and trying to gain quality of life. I see these patients are probably at the point where there were no other treatment options and they have come to terms with that and just want pain relief.

Similar to Debra and Laura, during class discussion at the beginning of the course, some students indicated they thought that patients who were in palliative care were “giving up”. Others wrote in their reflections that they saw these patients as “lazy” or “lacking initiative”, but by the end of the semester their opinion changed and they were able to understand that these patients were not giving up; they were accepting the stage of life they were living. From my professional experience I know this is often hard for students in the prime of their life to conceive without having experienced it.

It is evident that the students were learning class concepts in a more meaningful way than when they just role-played or theorized in class. The students had the opportunity to express their opinions freely in class; they were able to confront their own biases and learn about themselves and the experiences provided through the engaged scholarship project. In addition, the students had a chance to better grasp the stages of grieving and understand that the majority of patients do end up accepting their disease and prognosis which is part of the process of dying.

Critical Event 2: Patient Identification

As I walked in the classroom, I heard Margaret telling the class about an issue she had encountered on her first visit. I documented in my field notes her experience:

I went to the admissions desk and asked to be directed to my hospice patient room. The admissions clerk typed in the name and no match was found. She told me that there was no such patient. I was confused and so I then asked if there was someone else with whom I could check. I was directed to two nurses who told her that the patient was in fact there and they took me to see her.

After a thirty minute conversation with this patient, I was feeling really good and enjoying the visit when the patient said something that made me question the patient's identity. After asking the patient her name I discovered this was not the correct patient and she had been misidentified by two nurses at the facility. I was shocked that this could happen!

This example constitutes a critical event because it fit in perfectly with our class discussion on the importance of patient identification, ways to ensure as a healthcare professional you have the correct patient, and how easy it was for a patient to feel like a number instead of a person if healthcare professionals did not take the time to truly know them. Margaret said this experience, "made me realize that I really need to check to make sure I have the correct patient, because people are going to respond to the wrong name...everybody just needs to be checking things and double checking things."

When I talked about the importance of patient identification in past classes, students thought treating the wrong patient in radiation therapy was impossible; however it is a problem that unfortunately happens frequently. By having one of the students personally experiencing and telling the class how it happened and how three healthcare providers all gave her wrong information, the students saw it as a much more feasible problem and helped us have an in depth discussion in the classroom. In linking this experience to the

students learning, through reflection and discussion, students were forced to critically evaluate situations they were placed in and apply those to scenarios they could be placed in as future radiation therapists, which is the most important role experience plays in education (Merriam, Caffarella, & Baumgartner, 2007).

Critical Event 3: Proper Documentation of Medical Care

As this is the first course in the radiation therapy program, the topic of documentation and quality assurance must be addressed. Accurate recordings of each patients radiation treatment is essential and part of the patients treatment chart, which is a legal document. If a treatment is recorded inaccurately or on the wrong patients treatment chart, serious consequences can occur such as the patient receiving an overdose, under dose, or dose to the wrong part of the body.

Throughout this study, students were required as hospice volunteers to record each visit with their patient accurately on a volunteer log and send it in to Kathy so it can be recorded into the patients' chart which is also a legal document. Students had to accurately fill out the patients name, patient ID number, date of visit, reason for visit, and write comments on what they did during the visit. The students also had to sign and date the form accurately.

Before the semester began I was unaware that this would be a teachable moment in this project. I saw the forms and they seemed simple and self-explanatory. Kathy however called me after the first week of visits and I documented in my field notes her concern:

The students are struggling with filling out the forms accurately which is a huge concern for me because if the state auditors come in and the visits are not

documented properly we can be cited and lose funding. The students are misspelling the patients' name, or not putting the patients name on the form at all. They are not putting the correct date on the forms, and some of them are also forgetting to sign the form all together. I am going to have to send all of the incorrect forms back and have them redone.

Kathy sent me a pile of incorrectly written volunteer logs. As I brought them into the students they initially complained at having to rewrite the forms for something they felt was petty such as the wrong date. I decided to use this as a teachable moment to explain the importance of documentation. I told them in class:

These forms are the same as your radiation patients charts. What would happen if on their treatment chart you put the wrong date, or the wrong dose, or put the treatment in the wrong patients chart? Once when I was working in the clinic I had a partner that would fill in the whole treatment for that day during the first field. One day, the machine broke after the third out of 15 fields. In the panic, we got the patient down and had to send him home because the machine was broken for the rest of the day. Well, we forgot to edit the chart that was already filled in and so it appeared he had received his whole treatment. This mistake was not found until the patient finished his whole course of treatment and physics did the check the day after. We then had to call the patient back in and have him come to finish those fields that we had missed that day the machine broke. This caused the patient confusion and disappointment and left him worried about the quality of care he received.

We continued to discuss other ways they could see problems occurring because of inaccurate documentation in the patients chart for that class period. After this, the students seemed more aware of the level of detail in their volunteer logs. There were still other instances where the wrong information was filled out, however, when the forms were returned the students acknowledged the mistake and corrected it without complaint.

Critical Event 4: Confidence in Communicating and Addressing Death and Dying Topics Professionally

In the students first reflection, the majority of them stated that they were nervous about the thought of being asked about death, or if patients wanted to talk about the end of life. The majority of them indicated that they felt unconfident simply because they had never had the experience and it was an uncomfortable subject matter. Karla wrote in her first reflection, *I currently feel unconfident in talking to a patient about end of life concerns. I am always a good listener but I am unsure what I will say when they look to me for answers.* As the instructor and researcher, I had read the students first reflections prior to the volunteer orientation; I asked Kathy to speak on this subject and help alleviate some of the students' fears. During the first day of orientation Kathy said, and I wrote in my field notes:

Patients who are struggling to accept their prognosis and their phase of life are primarily the ones who are going to talk to you about this subject matter. Most of the time, they simply want someone to listen to their concerns. They know that you don't have the answer because there is no right answer, so don't be anxious with thinking you should have this magical phrase that will solve their concerns.

Just listen to their concerns, talk to them about their life, and if they seem truly distraught contact us and we will refer them to the Chaplin.

This discussion seemed to relieve the anxiety the students had in thinking they needed to have the right words to say. Kathy went on to say:

Most of the patients you will be encountering during your volunteer time are not focused on death. Yes they are terminal; however you will see that they are accepting of this and so tend to spend their time and energy thinking about the past and happy times in their life, those will be the topics they want to discuss with you.

Understanding that terminally ill patients do not simply want to discuss their illness or their fate seemed to alleviate many of their fears and was the experience most of them had with their hospice patients. For example, Debra talked about this in her individual interview; she said:

Coming into this project, I thought the patients were going to be sad and depressed all of the time, and the topic of death would come up a lot. I was surprised when Kathy discussed in volunteer orientation that many of the patients just want to focus on the positive, but that is what I experienced with my patient. She wanted to talk to me about her family and her past and she just lived on a day to day basis and tried to make the most of each day. In a way towards the end I wanted to be able to discuss her feelings about death with her, but until she brings it up I will not say anything. This has led me to being more comfortable with the topic though, I think if and when she does bring it up I will not be worried about what to say, I think it will come naturally.

Through this experience Debra learned that the needs of terminally ill patients are not centered on discussing their disease and prognosis, often they simply want to reminisce on the past and have companionship. In being in close proximity with this person however, even though they were not discussing death, Debra indicated she felt more comfortable about the topic.

In addition, Karla had a similar situation and expressed in her individual interview that:

Every time I saw my patient we only discussed happy topics about their past and what they did that day. I am sure since I am planning on continuing to visit with him even after the semester it will come up at some point, but I am not uncomfortable about it anymore. I don't know why because I have still never experienced talking about death and dying, but I guess just during my time working with the hospice I have become more comfortable with the topic and it doesn't seem as scary anymore.

This vignette illustrates that the students comfort levels with the topic of mortality were increasing despite the fact that they were not openly discussing the topic with their patients.

During this project, students did not necessarily have the experience of their hospice patient asking them about concerns of death and dying. Students learned that many patients are accepting of their prognosis and so choose to focus on the positive. It appeared however, and that is why this is a critical event, that just working within the hospice environment and speaking openly about the subject of death often, students comfort levels increased and they no longer had anxiety about the topic.

Critical Event 5: Patient Passing Away

As a healthcare professional, there is always a risk of losing a patient, especially when working in the oncology field. Rich (2005) and Stillion and Papadatou (2002) indicate that individuals working closely with patients who have a terminal illness diagnosis are affected personally by the losses, and need to be educated on how to resolve feelings of grief and sadness in order to reduce the risk of depression, stress and job burnout. Rich (2005) further explains that the death of a patient has been shown to affect the healthcare practitioner in three ways: it can be a painful reminder of personal losses, create anxiety related to their own fears of personal losses, and heighten awareness of one's own mortality. Through this experience, students were put in the situation where they had the potential to experience the loss of a patient but if it occurs it will be in a controlled setting where counselors and bereavement specialists can talk them through their grief, helping to come to terms with loss in a health manner.

Throughout the semester the project was carried out, no hospice patients assigned to the students passed away. Many of the students however, continued to volunteer over the Christmas break and into the spring semester. Several of the students' patients did pass at this time. During the second semester, as I was still teaching these students during this semester and Kathy as well as the students came to me to talk, I was able to collect data on their experiences. Kathy called me after the passing of Leila and Sharlas' patient and I documented the conversation in my field notes.

I just wanted to let you know that Leila and Sharlas' patient passed away this morning. The students are handling the situation amazingly. When I called them the night before to tell them he was actively dying in case they did not want to

witness that, they both made the effort to go and visit him that last day. They brought gifts for his wife, and even attended the funeral service.

Leila was the student who stated during the volunteer orientation:

I don't know how I will react to the death of my patient. I have never really experienced this and the idea of it is unsettling. I knew entering the field of radiation therapy that was a possibility but it is definitely the aspect of the field I am not excited about.

The way Leila and Sharla both professionally acted after the death of their patient exhibited growth from the beginning of the semester. These students were respectful and caring to the patients' wife, they mourned him properly both speaking to the Chaplin and receiving advice on how to not take the death of patients personally. Sharla explained during an office visit with me after her patients' death:

It was definitely sad, but I guess I am just glad that I got to be there for him and show him that he was loved up until the end. I think this has made me see that I can't take life and people in it for granted so if anything it makes me want to be more aware of this in my own life.

In experiencing the death of a patient while in the educational setting, these students benefited as they were surrounded by people with whom they could discuss their grief and get advice on how to continue being a productive healthcare provider knowing that the passing of the patient is plausible.

Summary

This Chapter focused on offering description of the context of the study in order to provide answers to the research question: What does the implementation of an engaged

scholarship partnership with a local hospice look like within the boundaries of an undergraduate Radiation Therapy Program? Throughout this chapter, we learned that when students are provided with appropriate learning experiences, they are able to critically reflect on what they are learning and deepen their knowledge of the course material. The volunteer orientation was a pivotal moment that laid the foundation for the students learning, and so topics that were influential in students gaining confidence in their abilities to be a volunteer were discussed.

I identified critical events that were experienced during this project which led to a deeper understanding of important topics throughout the course; becoming more engaged in their own learning, palliative vs. curative care, misidentification of a patient, importance of documentation, end of life communication skills and properly grieving the passing of a patient. All of these topics are important aspects in the field of radiation therapy and students had exposure to these topics as a result of this project.

The following Chapter will report the address answers to the final two research questions: How does this experiential learning project influence the students' view of the role of the radiation therapist? And how does this experiential learning project impact the development of communication and empathy skills in the radiation therapy students?

CHAPTER FOUR

ROLE OF THE RADIATION THERAPIST: DEVELOPING COMMUNICATION SKILLS AND GAINING EMPATHY

This Chapter documents the students' transition to a more patient-centered viewpoint. Through participation in the hospice-based engaged scholarship project students had the opportunity to examine their preconceived notions of the roles of the radiation therapist. Specifically, this chapter attempts to answer the final two research questions: How does this experiential learning project influence the students' view of the role of the radiation therapist? And how does this experiential learning project impact the development of communication and empathy skills in the radiation therapy students? As a result, findings document the impact this project had on students and how they plan to use the learning that took place due to participating in the engaged scholarship project.

Initially I wanted to organize study findings under the tenets of engaged scholarship as defined by Boyer (1990) since this is the theoretical framework guiding the study. I quickly realized that the tenets of engaged scholarship (providing a service to the community, reflecting and discussing in order to enhance student learning, teaching civic responsibility, and supporting community development) are interwoven. There is not a clear cut distinction among the tenets allowing for me to organize study findings in this manner. Therefore, this Chapter will present the themes that emerged from the data and include: Students learning to communicate with a unique population; patient needs

and professional practice; students gain a more empathetic viewpoint; understanding the unique needs of terminally ill patients; reframing view of terminally ill patients.

Students Learning to Communicate with a Unique Population

In order to provide excellent healthcare, it is vital to be an excellent communicator. In the field of radiation therapy, patients must understand what is expected of them to ensure a successful treatment, possible side effects of treatment, and the basic steps in their treatment protocol, in order to be an active participant in their treatment. According to the American Society of Radiologic Technologists (ASRT), (2009), it is also very important that the radiation therapist and patient build a trusting relationship. Building a trusting relationship is important as it allows the patient to feel comfortable communicating to radiation therapists about issues they are having with the treatment or at home. As the radiation therapist is the member of the oncology team that sees the patient on a regular basis, he or she is the healthcare provider that can most readily address patients' issues or find outside support for the patient.

In a study by Oflaz et al. (2010), oncologic nurses identified that while they felt confident in communicating with terminally ill patients about their treatments, they felt unprepared to address their emotional needs. Increasing students' confidence in communicating with patients and addressing their emotional needs was a goal of this project. However, because the students participating in this project were new to the field and had little previous experience communicating in a professional setting, they indicated that they felt underprepared for both communicating about the technical aspects of the field, as well as addressing the emotional needs of the patients.

Many of the students stated at the beginning of the semester that they had trouble initiating conversations with individuals who they felt they had little in common with both in the hospice experience and in their clinical practice. Debra stated in her first reflection,

I have no personal or professional experience with individuals who have been diagnosed with a terminal disease. In thinking about having to talk to these individuals, I feel uncomfortable and am not sure what to say to make them feel better.

Similarly, Laura stated in her second reflection that,

It's not easy relating to or communicating with someone at a different stage of life and this can leave me feeling awkward, which is a feeling I am not exactly fond of or welcome with open arms, so this experience puts me a bit out of my comfort zone.

When the semester first began students indicated that they struggled with initiating conversations, however by the end of the semester, increased levels of confidence in communications skills were identified as students stated feeling more comfortable talking to patients after the completion of this project. Laura said in her individual interview,

This experience has helped me talk to patients in therapy a little bit easier, you know just asking questions and making them feel at home and comfortable. Sometimes now I have learned that if they don't talk, I will just start talking about something random like about my dog and going to the park and then they will add something like oh I have a dog too what kind do you have and then we have a conversation just by a random comment that I made. Previously I would have

thought we had nothing in common, but now I see there are plenty of topics that individuals from all generations share interest of.

Likewise, Debra stated in her interview,

Before this experience I had never been put in the situation to understand how I would react in communicating with a terminally ill patient. Now, after this project, I don't think that I would feel uncomfortable speaking about the possibility of dying. I know see that there is no right answer; I am just there to listen and to offer support.

By the end of the semester, students stated that they felt more confident in speaking with individuals in a professional manner on all topics including death and dying. This was beneficial to them not only in their work at Caring Hands Hospice, but also in the radiation therapy clinic. Karla explained in her final interview,

I think I have learned how to talk to an older generation. Instead of just asking a basic question like "how is your day" or "how are you feeling" I can now get to know them better, talk about their families or what they like to do. This way we have more than just the basic stuff to talk about while we are setting them up for their treatment.

In the students first reflections students demonstrated the findings Henderson, Xiao, Siegloff, Kelton and Patterson, (2008), and Välimäki, Haapsaari, Katajisto, and Suhonen, (2008) all identified in their research; that college aged students had negative perceptions of older generations. This became evident as the students stated in their second reflection that they had feelings of anxiety about talking to an older generation, and felt they had

little in common with them, which was a barrier to them feeling confident in their communication with this demographic. Karla wrote in her second reflection,

When thinking about visiting my patients for the first time I was fairly nervous that they simply wouldn't like me or be rude, but I think I was just letting anxiety get the best of me. I have honestly never met very many rude old people so I don't know why I think that just because they are on hospice that they would be mean, but that is the first thought that came in my head.

Likewise, Margaret wrote in her second reflection,

I had a lot of anxiety about my first visit with my patient. I wondered how the conversation would go and if we would have anything to talk about. In the past when speaking to individuals who are older than I am, the hardest part was to jump the generation gap and find things in common to talk about, so that is what I was most nervous about.

Before this engaged scholarship study, most students felt they had little in common with older patients, and many had never been put in a situation where they needed to communicate with an elderly person who was not a family member. According to the American Cancer Society (2010) however, the major demographic of patients diagnosed with cancer are elderly, and so, learning to confidently speak to patients of an older generation is a necessity in the field of radiation therapy. This hospice-based community engagement project gave them the students the opportunity to befriend an individual from a different stage of life which alleviated many of their fears. The students gained an appreciation for, and a feeling of commonality with, a person of an older generation which increased their communication skills and effectiveness in the clinical setting by

enabling them to feel more at ease, and see the patient as a person and not someone from another generation. This new feeling of comfort in communicating with the elderly was demonstrated in the student's reflections. Leila wrote in her final reflection,

The difference in age was a concern before starting this project. I am not a shy person, but I have tended to feel uncomfortable trying to communicate with the elderly or with children. I am not really sure why...as this project comes to an end however, I have to say that it wasn't always the most comfortable thing, but then I grew more affluent, I realized our patients just want someone to talk to and feel connected and important in the world. They appreciate us taking the time to get to know them, and I enjoyed it as well. I will use this experience moving forward in my work as a radiation therapist.

As the semester progressed and students continued visiting with their patient regularly and building their relationship, they noticed that the communication between their hospice patient and the healthcare professionals was not always conducive to building a relationship. Laakkonen, Pitkala, and Strandberg, (2004) identified that a major source of disappointment among terminally ill patients was the lack of a meaningful relationship building between themselves and their caregivers. During this project, students gained firsthand experience with how the lack of a trusting and caring relationship between a patient and their healthcare provider can impact their quality of life and leave them in despair. This was evident in the way their healthcare providers communicated with them and listened to their needs, and provided students with examples of how to better build a trusting relationship with their patients.

A patient does not feel comfortable and at ease with an individual simply because they are a healthcare professional in any medical profession including radiation therapy (Holmström & Röing, 2010). In order for patients to feel confident communicating needs and expressing personal concerns according to Alrubaiee and Alkaa'ida (2011) healthcare professionals must first build a trusting relationship, and students realized this as the semester progressed. A trusting relationship according to the findings of Alrubaiee and Alkaa'ida, are based on the patients perceptions of the healthcare providers reliability, responsiveness, assurance, and empathy.

This learning experience enabled the students who typically only see patients from the perspective of a healthcare provider, the opportunity to witness healthcare professionals from the patient's perspective. Many indicated that being given this opportunity will affect the way they communicate and treat patients in the future, because they witnessed how rushed and harsh communications impact the patients feeling of control and self worth. Seeing the patient from a non-clinical perspective was the most important aspect in increasing students' communication and empathy skills, and this topic was reflected upon in class and discussed in great detail in students' reflections and their final interviews. Sharla talked about her experience within the nursing home during a class discussion,

I think that healthcare providers that work with terminally ill patients all the time, sometimes lose their compassion and interest in the patients. My patient didn't really have a buddy or anyone there to make him feel special or alive. I want to change that for my patients. Not only do I want to be there for them

professionally; I want to be there emotionally as well. I want them to see me, and just feel that sense of ease in sharing information with me.

As the hospice patients were living in nursing home facilities, students were able to witness the interactions between nurses within the facility and their hospice patients. Many students reported that often the healthcare providers in the facilities were not spending the time with these patients and often treated them as a job. Laura indicated in her final reflection that her patient,

Said he would voice needs and they would never be addressed. He was not getting the attention he needed in regards to his concerns, it was like they pushed them to the side. It taught me that what may seem like a small concern to a healthcare provider can be extreme for the patient. Never look past a patient's concerns, always address them.

In personally experiencing the complacent attitude many healthcare workers acquire over time, and the frustration it brought to the patient and the patients loved ones, the students' views of their radiation therapy patients began to change. Laura explained in her individual interview,

I want to always think that every patient could be my mother, father, sister, or brother and treat them accordingly. This person laying on my table is someone's loved one and if it was mine I would want them treated with the upmost care possible and this is exactly what I should give them 100% of the time. My patient's wife had died, and the only other contact he had besides me were the nurses and the doctors. From my observation, it did not seem like they recognized this and they saw him as their job.

Students witnessing the effect that complacent healthcare service had on their patients forced them to reevaluate the care they were giving in the radiation therapy clinic. They began understanding that the patients rely on their healthcare providers much more than they initially thought, and so they now want to rise to the patients' expectations.

Patient Needs and Professional Practice

Students also quickly realized their patients had little to no family visiting on a regular basis and many of them were confined to bed and had little interaction with the outside world. Healthcare providers or they, as hospice volunteers, were often their patients' source of joy. While students initially worried about having little to offer their patients, they soon discovered that simply being present and actively listening to them was what the patient truly desired. Debra stated in her interview how frustrated she was that her patient's family never saw her and yet she constantly talked about wanting to see them,

My patient was always talking about her family and they live far away so she didn't really get to ever see them...I mean there was nothing I could do about that, but at least I could be there. She even asked me if I would come and have dinner with her on Thanksgiving if I didn't have any plans because she was going to be all alone. This made me sad, but then I began to understand that when in a situation like this where you are all alone, you look for comfort in anyone and that is oftentimes a healthcare provider.

Debra understood that even though she was not a substitute for her patient's family, as a hospice volunteer, she filled a void for that patient, and made her realize the importance

of developing a relationship with patients as a radiation therapist. In her interview Debra stated,

Our cancer patients may be going through similar situations, they might be all alone if they have traveled long distances for their treatments, or they may be widowed with no family nearby. In those situations, I could be a support system for the patient because when going through aggressive treatment, you need to have someone you can count on.

Through the experience, students witnessed firsthand what Lakkonen, et al, (2004) found in their research on the need of terminally ill patients from their healthcare providers to form close relationships. Since many patients have little to no family, the healthcare provider is often needed to fill that void and the patient desires to form a close relationship. In order to develop trusting relationships as a healthcare provider however, students began to understand that it is not all about holding a conversation and having things in common. Sometimes the most important way to build a relationship is through listening.

As the students progressed through the semester, they often witnessed healthcare providers brushing off the needs of their hospice patients. The students indicated that in seeing this they gained a better understanding of the importance of listening to patients within the radiation therapy clinical setting in order to build a more trusting relationship. Laura stated in her interview that this experience helped her not only start conversations but build relationships not through talking but through listening.

As a therapist, when I go to get a patient out of the waiting room, it is a long walk back to the linear accelerator where the patient receives their treatment. Before

this experience, if the patient was quiet, I would not know what to say and the walk was silent and uncomfortable. This experience has helped me be able to start the smallest conversation so there is not that awkward silence and I think it helps out asking small questions and making gestures and going from that. I also think this experience has helped me to gain a more trusting relationship with my [radiation therapy] patients. I now listen to little things that they say and when I mention them the next time, they realize that I was listening...so the fact that I am remembering things they say from one day to the next shows them I care and then they feel more open to tell me things or they become more trusting of you.

Listening was a shortcoming that many students identified caused frustration with their hospice patient. They indicated that healthcare providers seemed short, rude or non-responsive to the needs expressed by their hospice patient. Debra was bothered by the way the nurses at her patients' retirement home seemed to not take complaints seriously. She wrote in her third reflection,

My patient complained about her mattress to the staff and they came to check on the complaint during our visit. Personally, it seemed to me like they were taking her complaint for granted. They spoke in somewhat abrupt tones and didn't really try to find the issue. I can imagine how difficult it is to work with elderly patients that can make heedless complaints, but it is also important to take patients seriously, regardless of their state.

This topic was discussed in class after many students' reflections depicted that healthcare providers were not taking care of their hospice patients' needs adequately. Consequently, I had them reflect to see if they observed similar behavior in the radiation therapy clinic.

Debra, who seemed particularly bothered by the way her hospice patient was being treated, also had some issues with the lack of concern the therapists with whom she worked, displayed for their cancer patients needs. She stated in class and I documented in my field notes,

I guess sometimes I feel like my therapists could be doing more than they do right now...a lot of times they ask how the patient is feeling and he or she says not well and they just say “oh I’m sorry”, and I want to jump in and say well what do you mean, what’s wrong, what doesn’t feel good, do you have a fever, are you going through chemo...I just think there were things that could have been asked or researched a little bit more that were just blown off by them and they would just give typical responses.

During the class discussion, students discussed witnessing radiation therapists appearing complacent when hearing that patients were not feeling well and brushing it off. These students indicated that because of this experience they saw how important the relationship between patient and healthcare provider is, and they gained an appreciation for the magnitude of stress a cancer diagnosis and treatment places on an individual. In Debra’s final interview she stated,

This helped me realize that to them, [the radiation therapy patients] this is a huge deal. Even though to us we understand that a stage one or stage two disease is highly treatable and the patient is probably going to be fine, to them, they don’t work with this on a daily basis like we do and cancer has such a bad connotation that when patients hear the word they think the worst. And so we have to realize that you can’t just brush it off when people are discussing their concerns with you

because we need to bring ourselves to their level and think about what they are going through.

Students were then able to relate this new knowledge gained from this experience to their work with cancer patients. Laura said that this experience, “helped me observe every little thing” not just what the patient was saying but the way that it was being said and recognizing if the patients actions didn’t fit the words. She noticed in her interactions with her hospice patient that sometimes he would not express his needs to her and the healthcare providers because he didn’t want to be a burden. This made her reflect on her radiation therapy patients in her final reflection,

I began to notice the smallest things [in working with the radiation therapy patients] and listening to the patients about needs that they are not wanting to come right out and say, or if they are having a struggle and they need someone to help them out, you know we have resources they may not know about.

Laura relayed this knowledge into her clinical experience. She discussed in her interview an incident that happened within the radiation therapy clinic. Laura said there was a patient in the clinic that when she asked how the patient felt, the patient initially responded that she felt fine. Laura probed further because she knew she was acting differently by the way she walked and by the fact that she wore glasses that day which was atypical. Laura explained,

She had glasses on this day, and as soon as she walked into the room I could just tell there was something different, so I asked her if she was sure she was okay today and she immediately broke down...she told us that basically that she was overwhelmed and not having her family there and not having anybody to help

take care of her, she didn't even have energy to get up and go get food. Well she wasn't aware of the resources with the American Cancer Society and some other resources, so after speaking with her, I wrote down all the numbers for her to get into contact with the different resources and I asked her if it was okay if I let them know her name and I asked you to call them...I called to check later if she did get in contact with them, and she did. They are now providing her with transportation and getting her food and all of those little things you don't think about.

The engaged scholarship experience allowed Laura to personally see how her hospice patient is alone and needs her support as a volunteer because of lack of family support. This made her more empathetic to cancer patients who may also struggle to take care of themselves alone while managing the side effects of their cancer treatments. It also gave her the confidence in her communication skills to know that she had resources that were beneficial to the patient and so she acted appropriately providing excellent care for her patient.

This opportunity of communicating with patients from a side other than a healthcare professional appeared as the most beneficial to the development of communication skills that the students will utilize later in their career and also demonstrated that experiential learning had taken place. Experiential learning as described by Kolb (1984) occurs when students have a concrete experience, they then reflect on that experience and make meaning of it, and finally utilize the tools learned from the experience in other situations. Through this experience, students witnessed healthcare provider's interactions with patients, and the needs of a terminally ill patient, reflected on their actions both positively and negatively and then described how they will

use that knowledge while working in the field of radiation therapy to better care for their patients.

Through this experience, students gained an appreciation for the relationship between patient and healthcare provider and began to understand how the healthcare provider often fills a void in the patient's life as they may feel alone, or physically be alone, while going through treatment. Holmström and Röing, (2010) identified that patients felt most in control and satisfied with their treatment and disease if caregivers; 1) paid attention to biological, psychological and social aspects of patients health, 2) understood the patient was a person and that the illness has a personal meaning to each individual, 3) shared the power and responsibility with the patient, 4) shared common goals and developed a relationship around this commonality, and 5) patients acknowledgement that the healthcare provider is also a person. Through this project, students grasped these concepts of patient-centeredness which will enable them to build a trusting relationship with their future radiation therapy patients.

The students learned that in building this patient-centered relationship, they needed to do more than physically be present, but that they must really listen to their patients needs and acknowledge their feelings. They need to acknowledge that the disease and treatment affect each patient differently, and that as the healthcare provider, they are in a mutual partnership with the patient to provide the highest quality of care.

In providing service to their hospice patients, the students also built meaningful relationships with a demographic with whom they previously indicated they had nothing in common. The students then reflected upon how they will use the skills learned

through this project and begin building relationships and confidently communicating with their radiation therapy patients.

Students Gain a More Empathetic Viewpoint

In addition to increasing the students' confidence in their communication skills through the implementation of this engaged scholarship project at Caring Hands Hospice, students developed a more empathetic viewpoint of patients with a cancer diagnosis.

Kubler-Ross (1969) identified that the needs of cancer patients, as well as terminally ill patients, are unique. These patients are struggling to cope not only with their treatment, but with the idea that their life is permanently altered at the time of diagnosis, and extra care and compassion is often needed while they are working towards acceptance of the disease. In forming a close relationship with a terminally ill patient, students gained a greater understanding of the struggles patients were enduring, which had the potential to impact them permanently through their career, encouraging them to remain empathetic healthcare practitioners.

This experience allowed Karla to truly understand the magnitude a terminal diagnosis carries for a patient. In her individual interview she stated,

I always think that I have felt bad for people who are terminally ill, but it makes a difference when you realize that they have a family and all of that. Whenever you actually meet people who are terminally ill and realize that they do have a personality and a past it just makes it more real. It's like you can read in the papers that someone is sick or dying and you think, that is sad, but whenever you know someone personally who is terminal, you think about it differently....so I guess it made it more real for me and it made that word [terminal] mean

something more because now I now know someone personally who is in that situation. Because of this, the experience helped me better understand what our patients are going through.

Karla's time with her patient made her reexamine how she was interacting and displaying empathy towards her patients in the clinic as well. As her hospice patient became embarrassed when he needed help going to the bathroom and tasks that most healthcare professionals see as their job, she realized that to the patient these were not jobs, but a loss of independence and dignity. In her final reflection she said,

I will be more considerate of patients' feeling after realizing how easily some patients get embarrassed about their urinary catheter, dentures or when talking about symptoms such as diarrhea. It seems normal for radiation therapists to talk about these topics openly, but that is only because we are around them all day. The patients however, may still feel embarrassed and not want us talking in such a blunt manner.

As healthcare professional it is easy to become accustomed to talking about sensitive subject matter, and no longer understand that topics can be embarrassing to patients. A study by Leo et al., (2009) indicated that healthcare provider's lack of empathy was a major source of disappointment in the oncology field. As Karla recognized how the bluntness of healthcare providers affected her hospice patient, she will now intentionally act more empathetically to patients within the clinic and allow them to maintain their dignity while still obtaining the information needed.

Forming a relationship with a terminally ill patient with a cancer diagnoses also allowed Margaret to gain a better understanding of why the general public is so fearful of

a cancer diagnosis. This made her realize that the patients she encounters in the clinic are scared and stressed and so it is her job as a radiation therapist to ease those fears. In her individual interview, Margaret stated,

This project made me see patients more as a whole person and realize that for them their battle with cancer doesn't end when they finish treatment with me, but it will be a lifelong battle. The experience of getting to know a terminally ill patient allowed me to see the other side and see that not everybody is going to be okay after treatment. I always knew that some people are going to pass away from cancer, but this experience made it more real and now I understand that patients have every right to be stressed and ask questions that we as therapists see as insignificant because we are around this all of the time. I saw in clinic that this one patient was so stressed out about where and when to put the skin cream on and if it was going to affect her treatment and she would ask the therapists every single day of treatment. The therapists seem annoyed and would tell her to just put it everywhere, but this experience has made me see that to her the treatment is a huge burden and her concern is not insignificant, and we should empathize more with our patients' circumstances.

Just as Karla gained a more empathetic viewpoint while witnessing healthcare from the patients' viewpoint, Margaret now better understands why patients ask questions over and over even after the answer has been given. Margaret now sees that while the process of radiation therapy treatment is repetitive to radiation therapists, it is a new experience to the patients she is working with, and so she will now be more patient and reassuring instead of dismissive and abrupt.

The majority of healthcare providers enter into the field because of their internal desire to help others, however as their career becomes a job, workload and stress often interferes with the quality of care provided to patients. Research on caregivers of terminally ill patients by Laakkonen, et al., (2004) and Oflaz et al., (2010) indicated that because of ever increasing workloads, care is often resorted to getting the work done as opposed to caring for the patient's non- physical needs. In research specifically on the field of radiation oncology, Ballo (2011) indicated that in order to truly care for cancer patients' needs, the physical as well as psychological, social, spiritual and economic needs must be addressed. In order for radiation therapists to address all of these needs, they need to begin focusing on the patient more and less on getting the job done.

Initially, the time commitment was a great concern of many of the students. They worried about how they were going to fit visiting for an hour each week with their patient into an already full schedule of class and clinic time. Increased workloads and shortage of staff has been identified as a catalyst to healthcare professionals not having the time to invest in their patients other than the time they are physically needed, which Laakkonen, et al., (2004) and Oflaz et al., (2010) indicates diminishes the quality of their interactions. Through this experience, however, students saw that the personal reward they gained from spending extra time on someone in need offset their personal sacrifice. This knowledge, when translated to the clinic, has the potential to impact the students allowing them to realize the importance of taking the time to care for each patient regardless of the time constraints. Debra, who had to drive over 30 minutes each way to visit her patient, stated in her final interview,

I always wondered if I would have time to go to see my patient because she lived so far away, but when I did, I never regretted going. I always felt good that I went...you know she doesn't expect anything from me and I don't expect anything from her and it is just casual conversation. I feel like that rarely ever happens these days, you know every time you have a conversation with somebody it has a purpose, it's like I need this from you or you need this from me, so I feel like rarely do people just sit down and talk about things and it was nice to experience that.

Debra recognized that the personal sacrifice of time was offset by the feeling of satisfaction she received from her patient, and the experience to forget about a schedule and take the time to really get to know another person is an amazing skill to possess when utilized in the radiation therapy clinic. Leila was also initially concerned with how taking an hour out of her week to visit with her patient was going to impact her grades, but she soon realized that the time spent with the patient was worth the sacrifice. Leila wrote in her second reflection,

I was completely over my apprehensions after my first visit; my patient was so thrilled with visitors you could just see how much joy it brought to his day. I brought in a music player so we could listen to his favorite country music and brought in crafts to decorate his room...I plan to continue with that trend during visits, maybe hanging holiday themed decorations every month and bringing him allowed holiday goodies, like pumpkin pie... it feels good to bring him happiness.

This same patient once asked Leila if she visited a lot of patients at the facility. When she said no, that he was the only one, Leila said in her third reflection,

He was so excited because he felt wanted and loved and you know that means something and I was able to bring that to him.

As the students were realizing that placing the patients' needs over their own was rewarding and part of their job both as a hospice volunteer and as a radiation therapist, they began to reflect on how the radiation therapists within the clinics exhibited this same behavior. Kim indicated in her final reflection,

I would see the therapists running behind on the machine and they would be so stressed out they would hardly look at the patient. I heard one say, "let's just treat this patient really fast and then go to lunch", and I mean they don't take the time and really talk to the patients if they need it; they are more worried about themselves. This experience has taught me to be there more for the patient, and put my needs second.

Similarly, Debra indicated that in her clinical experience, she also has witnessed radiation therapists focusing more on staying on schedule than quality time with the patient. In her individual interview she stated,

I feel like the therapists I am working with right now could do more for the patient. I realize it is stressful when the machine is behind schedule, but that doesn't mean that the patients' time should suffer. What if that is the day they are in need of someone to talk to? I mean that is why I wanted to get into this field, to really make a difference. Sometimes I see therapists and oncologists just coldly asking the typical questions and I want to ask the patient how this is affecting them emotionally and if they need any support, not just how their side effects are being managed.

Working in the field of radiation therapy, running behind schedule is inevitable. Many times, the machine will break, or patients will run late. Learning, however, to maintain professionalism and a sense of empathy and compassion towards patients is important in order to meet the needs of patients on a daily basis. The worst day for a therapist may be the same day a patient is in great need of someone to listen to him or her, and through this experience, students realized that focusing on the patient and sacrificing their personal time pays off through feelings of personal reward.

Throughout this project, students reflected on their experience and will utilize that knowledge in their work as future radiation therapist, which Merriam, Caffarella, and Baumgartner (2007) describes as the goal of experiential learning. The students recognizing the lack of empathy many healthcare providers displayed to their hospice patients made them reevaluate the type of care they wish to provide to their future patients.

As students traversed through the experience, they learned valuable tools that increased their communication and empathy skills not only with the hospice patient, but in their work in the clinics as well. They began to realize that very small gestures and personal sacrifice are impactful to someone who is terminally ill, as well as to patients undergoing radiation treatment for cancer. This is a very well known idea; however, in the healthcare field and specifically in the field of radiation therapy, Leo, et al., (2009) and Warren (1991) explain that the increase in technology and output often outweighs the human element of healthcare, and it is time to realign our priorities to better meet the unique needs of terminally ill patients and patients struggling with a cancer diagnosis. In incorporating an experience that emphasized communication and empathy into a

classroom, students understood that these skills are just as vital to their development into a superior radiation therapist as the technical skills.

Understanding the Unique Needs of Terminally Ill Patients

The literature review studies by Field and Cassal (1997) as well as Stillion and Papadatou (2002) identified that terminally ill patients often have different needs from healthcare professionals, and each of these studies identified that in order to improve the nature of care provided to palliative patients' healthcare providers needed to be more present. Students who participated in this project learned for themselves that not only do terminally ill patients have unique needs; they also learned that the needs of the patient do not always match up with their expectations of the relationship. Some patients wanted to sit and have conversations and others wanted someone there primarily for comfort and security, not necessarily friendship.

When working with terminally ill patients, especially as a volunteer, the students learned during the volunteer orientation that it is the volunteers' duty to meet the patient where he or she is in order to meet those needs, putting aside personal expectations. While this was trying for many of the students, this lesson will allow them to improve their communication and empathy skills to all patients within the radiation therapy clinic and provide a better treatment environment for the patients of the future.

Throughout this project, students learned that the needs of hospice patients differed from their own personal expectations for the relationship and that the caring relationship as described by Field and Cassal (1997) that is imperative for terminally ill patients to have with their caregivers means different things to different people. Students

were forced to acknowledge that as the volunteer or healthcare provider, they have to sacrifice their own desires to meet the needs of the patient.

Students entered into the project with many expectations of the partnership. Kim stated in her second reflection, “I hoped she would be the sweet grandmother I once had.” Christi expected, “a new friendship that would teach me a whole new way to look at life,” however the needs of the patients did not always match up with the students wishes which left some of them disappointed, while it taught others that often when working with terminally ill patients you have to meet them where they are.

Christi’s patient was mostly unresponsive and so while she wanted to gain a new friendship, her patient’s needs lay more in just knowing someone was there if she needed her instead of spending an hour talking and getting to know her as a person. This frustrated Christi as well as the other students who had this patient; however, it taught them that all patients are unique and have different needs from healthcare providers and so they need to learn to adapt to the temperament of the patient instead of pushing their own agenda. By the end of Christi’s experience she came to terms that while she values going out and verbally communicating, she explained in her final reflections,

Some patients are content to mainly rest all of the time, and that makes them happy...it doesn’t take a whole lot for them to find happiness in life other than resting and peace. In the beginning of this experience, it was hard for me to understand why my patient was so accepting of a sedentary lifestyle. What I have come to realize is that everyone has different phases of life and as long as they are happy with where they are then that is a reason to live. As a healthcare professional I will not treat patients preferably simply because I have more in

common with one over another, they all deserve to be treated in the manner that best suits them.

Just as Christi was frustrated with the lack of verbal communication her patient was able to offer, other students realized the different effects that declining health has on people, such as loss of memory, and how not to take that personally when working with these patients. While initially students were frustrated when patients did not remember them or what they discussed, by the end they understood that the lack of memory did not mean they were not having an impact.

When Ann first began visiting her patient, she was frustrated that her patient didn't seem to recognize her from visit to visit. She stated in her second reflection,

She kept asking me if I am going to come back and see her again, which is funny because when I come back to see her she doesn't really remember who I am.

Ann at first felt that since the patient couldn't remember the visits she shouldn't even bother, because the time commitment was burdensome, and the patient did not appear to be benefitting from it. However, by the end, Ann's patient did start to remember her, and in her final reflection she stated,

Even though she tells me the same story over and over, I don't mind because it seems to make her happy, and that is why I am there. During the third month of visiting she started to recognize me and seemed excited when she saw me. This made me feel good and I plan to continue visiting with her through the Christmas break.

Hospice patients' needs depend on the disease in which they are suffering as well as the stage of grieving they are in according to Kubler-Ross (1969). Some of the patients had

dementia, advancing Alzheimer's or other memory depleting diseases which initially made the students wonder why they even took the time visiting if the patient could not remember the visit. Others had patients who had been battling their illness for so long they had achieved all stages of grieving identified by Kubler-Ross and were now in the acceptance phase and seemed content which puzzled many students. However, the lack of ability to remember or communicate does not eliminate the need all individuals have for human contact and interaction. As Kathy discussed in volunteer orientation,

touch is a powerful way to connect as human beings, and hearing is the last sense to go before death, so even if a patient cannot communicate, the soothing presence of another person can bring great peace. All patients are deserving of care and find peace in knowing that there is someone in the world that thinks about them.

Similarly, within the radiation therapy clinic, radiation therapists will find a variety of needs from cancer patients. Some patients have a huge support system at home and so have little need in forming bonds with their radiation therapist. Others are traveling long distances and are all alone in a new city and the daily interaction with the radiation therapist is a bright spot in the day. Through this project it became evident that students recognized companionship as one of the greatest needs of their hospice patients and planned to use that information in their future clinical practice as well.

Reframing View of Terminally Ill Patients

At the beginning of the semester students were extremely concerned that in working with terminally ill patients, this project was going to be depressing and they were going to do nothing more than talk about death for the entire visit. Much to their

surprise, the students reframed their view of terminally ill patients, their circumstances are grim, but that does not mean that they dwell upon it. Karla wrote in her second reflection,

When I decided to become a hospice volunteer I was a little worried about how I would handle answering questions about death and I assumed that is what we would be talking about. After meeting my patient, my misconceptions were revealed, she was happy to see me, we had a conversation about her life and her children and there wasn't anything depressing about it. I guess just because someone is terminal doesn't mean that they don't want to enjoy life while they are still here and so they are not always focused on the gravity of their disease.

She demonstrated growth in her final reflection as she talked about her experience and how she now better understands how to meet the needs of her patients, Karla said,

I am very happy that we were assigned volunteer work with hospice patients this semester. I can tell how happy this relationship has made my patient, she tells me stories and I am fascinated by her life. Sometimes she talks for a long time and then apologizes because she thinks that she is being rude for not letting me talk but I always tell her I love hearing her stories. I can see that in telling her stories she is being brought back to a happier place. Now that we are at the end of the semester, I am no longer worried about talking with others about their feelings. Previously when people would tell me about their personal feelings, especially if they were sad or depressing, I didn't really know what to say, but after spending a semester visiting with my patient, I feel like I know the right things to say or simply when to be quiet.

Likewise, Leila's experience also focused primarily on the patients' happy times and providing companionship, and conversations were not centered on the disease. She wrote in her third reflection,

We have not discussed any serious subjects so far which is surprising to me, it seems like he wants to talk about his past and let us get to know him better. It has been rewarding to watch him laugh hysterically while telling a story, though I wouldn't mind if he wanted to discuss more serious subjects. I am leaving it up to him. I am perfectly comfortable with just chatting and hanging out with him; as long as I can contribute by bringing him happiness and comfort I consider our visits a success.

Karla and Leila, through this experience, both realized that terminally ill patients often want to spend their time reflecting on the good instead of focusing on the negative. This relieved their anxiety as a volunteer as well as in the clinic as they became less focused on knowing the right things to say and began focusing on forming a caring relationship. They began to see what Field and Cassal (1996) state as the way to increase patients' satisfaction, which is to strengthen both the quality and quantity of communication by healthcare workers with patients and families.

Radiation therapists work with a variety of patients with unique needs. Patients who are non responsive or cannot communicate because of their disease are present, as well as patients who are forgetful or have little family. In order to become a compassionate radiation therapist, students must learn that each patient has unique needs, just as their hospice patients, and it is their job to provide excellent care and address both their physical and emotional needs. The students discovered that displaying empathy

and providing comfort was more than just talking and visiting with patients. It was about fulfilling the type of companionship their patient needed. In discovering this so early in their career, these students are better prepared to meet the needs of more patients in the future, patients that may also have unique needs or circumstances that inhibit them from communicating in the traditional way.

Summary

This chapter discussed the students' experience learning to communicate with a unique population; they learned about patient needs, gained a more empathetic viewpoint and reframed their view of terminally ill patients. The students revealed their knowledge gained through personal and in-class reflections, and during individual interviews. I used the researcher's log and field notes in order to provide insight into the students' responses throughout the implementation of the project.

The following chapter, Chapter Five, addresses the main findings of the study; It provides a graphic representation of the changing viewpoint of the role of the radiation therapist. This final Chapter also explores emerging tensions as the project unfolded; provides pedagogical implications and avenues for future research. Finally, the last section of the chapter attempts to provide closure to the reader by coming full circle revisiting the main goal of the study when I embarked on this journey as a teacher-researcher a year ago.

CHAPTER FIVE

WRAPPING UP AND COMING FULL CIRCLE

This qualitative case study examines the implementation of a curricular intervention within the boundaries of a radiation therapy program. Specifically, the study explores the experiential and transformational learning that takes place when a hospice-based engaged scholarship project is incorporated into a radiation therapy course. Ten students enrolled in the *Introduction to Radiation Therapy* course volunteered to participate in the project: Ann, Christi, Debra, Jayme, Kim, Karla, Laura, Leila, Margaret, and Sharla (all pseudonyms). The research questions guiding the study include: How do radiation therapy students respond to the implementation of an engaged scholarship partnership with the local hospice in relation to educational gains, experiential learning, transformational learning, and professional growth? This question is supported by the following sub-questions:

- a) What does the implementation of an engaged scholarship partnership with a local hospice look like within the boundaries of an undergraduate Radiation Therapy Program?
- b) How does this experiential learning project influence the students' view of the role of the radiation therapist?
- c) How does this experiential learning project impact the development of communication and empathy skills in the radiation therapy students?

Answers to the research questions were addressed in Chapters Three and Four. As Boyer (1990) indicated, all four tenets of engaged scholarship; (a) providing a service to the community, (b) reflecting and discussing in order to enhance student learning, (c) teaching civic responsibility, and (d) supporting community development, played an insurmountable role in the incorporation of this project, and the successful completion of the course objectives. This engaged scholarship project provided learning through experience that took the students out of the classroom and placed them in a unique situation which assisted them to become independent learners. The students' journey and knowledge gained from the experience were reflected upon both in private and in the classroom enhancing the learning of all participants.

Throughout this project, the radiation therapy students were engaged in a learning experience that broadened their knowledge of terminally ill patients, and how to best meet their patient's physical, emotional and psychosocial needs as future healthcare professionals. As a result of participating in the engaged scholarship project students are better equipped to enter into the workforce, and develop greater confidence in themselves and their abilities to appropriately and professionally communicate with this demographic.

In Chapter One I introduced the study, the research questions and statement of the problem; I also provided a review of the literature identifying the gap in the literature supporting the need for exploring new teaching strategies for developing students' communication and empathy skills in the field of healthcare and radiation therapy.

In Chapter Two I described the overall research study design in detail, including data collection and data analysis procedures. Next, in Chapter Three, I provided a

description of the context of the study in order to address answers to the research question: What does the implementation of an engaged scholarship partnership with a local hospice look like within the boundaries of an undergraduate Radiation Therapy Program? Throughout this chapter, we learned that when students are provided with appropriate learning experiences, they are able to critically reflect on what they are learning and deepen their knowledge of the course material. The volunteer orientation was a pivotal moment that laid the foundation for the students learning, and so topics that were influential in students gaining confidence in their abilities to be a volunteer were discussed.

In addition, in Chapter Three I identified critical events that occurred during the implementation of the engaged scholarship study. These critical events led to a deeper understanding of important topics throughout the course and included: becoming more engaged in their own learning, palliative vs. curative care, misidentification of a patient, importance of documentation, end of life communication skills and properly grieving the passing of a patient. It is important to emphasize that all of these topics are important aspects in the field of radiation therapy and students had exposure to these topics as a result of this project.

Finally, in Chapter Four, I focused on providing answers to the last two research questions: How does this experiential learning project influence the students' view of the role of the radiation therapist? And how does this experiential learning project impact the development of communication and empathy skills in the radiation therapy students? In addressing answers to these questions I discussed the students' experience learning to communicate with a unique population; they learned about patient needs, gained a more

empathetic viewpoint and reframed their view of terminally ill patients. The students revealed their knowledge gained through personal and in-class reflections, and during individual interviews. I used the researcher's log and field notes in order to provide insight into the students' responses throughout the implementation of the project.

The Chapter highlights the main findings of the study; it also provides a graphic representation of the changing viewpoint of the role of the radiation therapist. This final Chapter also explores emerging tensions as the project unfolded; provides pedagogical implications and avenues for future research. Finally, the last section of the chapter attempts to provide closure to the reader by coming full circle revisiting the main goal of the study when I embarked on this journey as a teacher-researcher a year ago.

Notable Findings

This hospice-based engaged scholarship project was implemented in order to overcome an identified deficit in the course plan. That is to say, the Introduction to Radiation Therapy Course has been designed to deliver course content and lessons within the boundaries of the classroom; the instructor is expected to provide the students with activities such as role play, scenarios, lecturing and discussion. However, for this group of students in the Introductory Course of Radiation Therapy, it is very important to provide real life hands on experiences working with patients struggling with end of life issues. Through the implementation of this project, students' empathy and confidence in their communication skills addressing end of life issues increased. Their views of the role of the radiation therapist were altered as a result of their experience with their hospice patient.

Figure 1 below illustrates the elements that contributed to assisting the students into changing their viewpoint of the role of the radiation therapist. These elements include critical reflection, communication, and empathy. Figure 1 represents a Venn diagram of three circles overlapping and contained within a larger circle. The three circles represent the three critical elements needed for students to be able to come up with a new viewpoint of what their job as a professional in Radiation Therapy should look like. The three elements are communication, empathy and critical reflection. The large white circle containing these three elements represents the course in which the research project was implemented. At the bottom of the large circle is the foundational framework, engaged scholarship, which informed the entire experience implementing a Hospice-Based Engaged Scholarship Project. All of the elements present in the diagram are equally important and are reflected in the study findings.

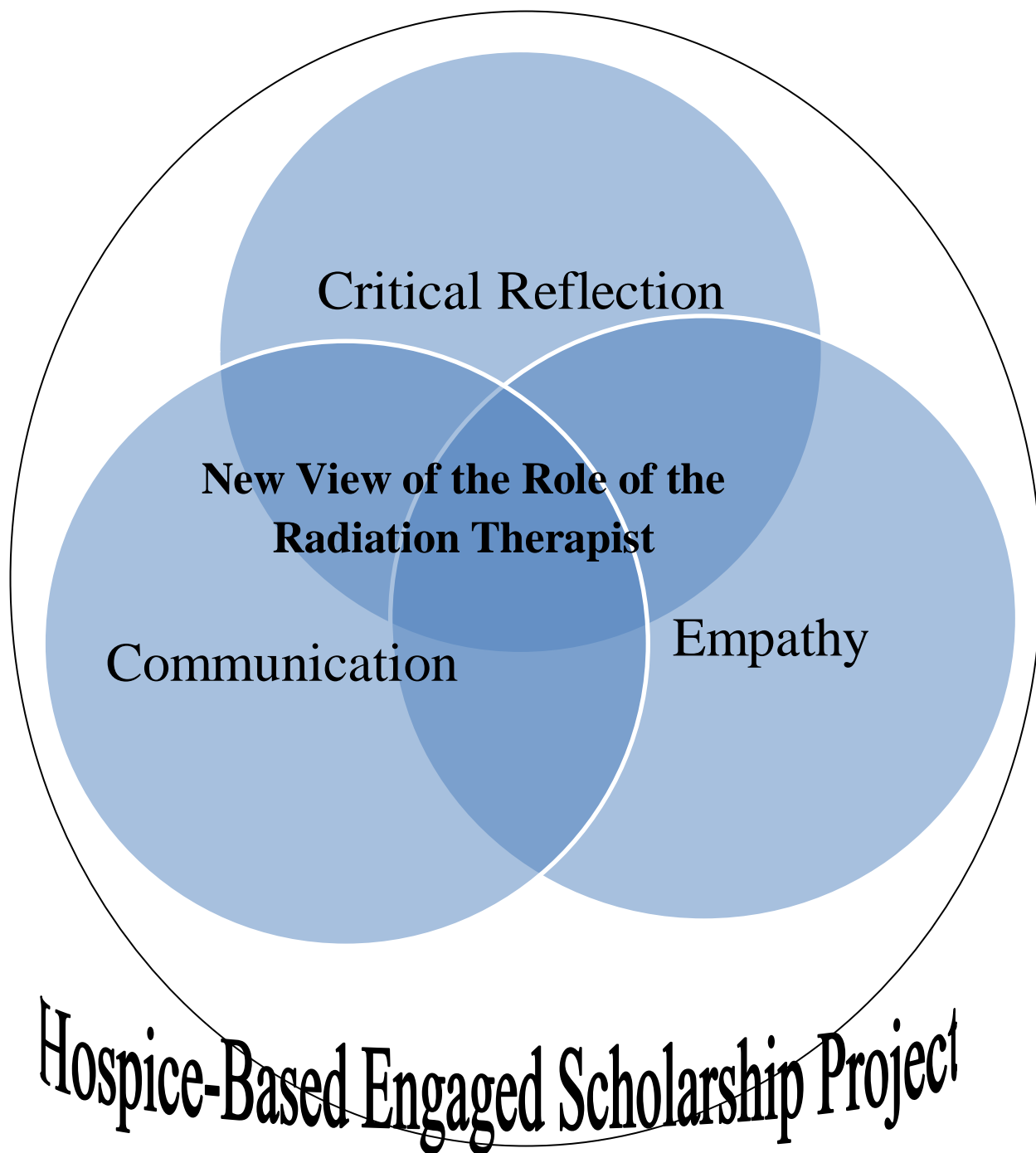


Figure 1. *New Viewpoint of the Role of the Radiation Therapist.*

Communication

As reflected by the findings presented in Chapter Three, communication refers to exchanging messages from one person to another. For example, during the volunteer orientation, Kathy, the volunteer coordinator, and the guest speakers introduced a discussed variety of verbal and non-verbal forms of communication. In addition, students indicated gaining a broader understanding of the meaning of communication to include listening, touch, and sustaining a conversation with another human being regardless of the label of “patient”.

Students’ ability to confidently communicate in a professional setting is a notable gain that students obtained while participating in this project. The majority of medical professional standards, including the American Society of Radiologic Technologists (ASRT, 2009), indicate the importance of building trusting relationships between patients and healthcare providers in order to effectively communicate with patients and provide optimal care. The literature showed however little evidence that this was being addressed in a meaningful way through education. Oflaz et al., (2010) identified that even practicing professionals in the field of oncology felt underprepared to address the emotional needs of their patients. Because of their lack of confidence, healthcare professionals often revert to caring for physical needs over emotional needs. This experience allowed the participating students to gain a greater understand of the true needs of terminally ill patients, and see from the patients perspective their desire to gain a more involved relationship with their caregiver. Because of this, these students are more open to developing these trusting relationships with their cancer patients, and gained

confidence in their abilities to communicate professionally on a variety of topics including mortality.

Students also gained an appreciation and respect for the skill of listening. Through this experience, students recognized that the way to build a true patient centered relationship was not only in how confidently they communicated with their patients, but that taking the time to truly listen was equally important. Many students witnessed healthcare providers brushing off their hospice patients' needs, neglecting to deliver on services promised or worse misidentifying patients all of which leads to unsatisfactory care and possible neglect and mistreatment of patients. Students learned through experience that listening to the patients needs no matter how petty they feel to the healthcare provider, greatly enhances the patients feelings of satisfaction of care.

Empathy

Specifically in Chapter Four study findings reveal that the students developed a more empathetic viewpoint of patients with a cancer diagnosis. As illustrated by the data presented, empathy is the ability to recognize and consider the feelings and special circumstances that a person, in this case the patient, is going through and at the same time be able to identify with these feelings as if they were their own. The participating students reflected on their patients' feelings about losing their independence and dignity as human beings in need of assistance to be able to complete the most basic daily functions. They talked about their realization of the need to look at the patient as a whole person and the importance of building trusting relationships and showing compassion.

As Kulber-Ross (1969) identified, terminally ill patients have a unique set of needs from their healthcare providers which are similar to the needs of cancer patients.

Oncology patients are struggling to accept their diagnosis and according to Leo et. al., (2009) the lack of empathy displayed amongst healthcare providers often leads to a further increase in feelings of loss of control and dignity in patients' lives. In developing a one on one relationship with a terminally ill patient, students began to see their hospice patient, as well as the patients they were working within the clinic, as whole people and not just a patient to be treated. Students identified demonstrations of lack of empathy from radiation therapists, and critically reflected on how they plan to use this information to display more compassion to their patients in the future. I know this experience will remain with the students and will keep them focused on the patients needs making them more compassionate and empathetic caregivers.

Critical Reflection

Throughout this project critical reflection played a central role stated in the Methodology Chapter. The students' reflected in writing and through class discussions with their peers, the hospice volunteer orientation session, and individually with me the instructor through informal meetings and exit interview for the project. Critical reflection is the act of examining the underlying beliefs and assumptions that we hold and that effect the way we make meaning of an experience. In this case, professionally, it also refers to the ability to self-examine one's practice providing healthcare services. This was an important piece missing in the Introduction to Radiation Therapy Course prior to the implementation of this project. For example, the students were asked to reflect based on artificial scenarios and role play conducted within the classroom. They did not have the opportunity to critically examine a real life scenario like the ones they encountered at Caring Hands Hospice. Chapter Four provides several examples supporting this finding.

Through critical reflection of their experiences within the hospice, students' gained a new perspective of their role as a radiation therapist, and explained how they were planning on implementing these ideas into their future practice.

New View of the Role of the Radiation Therapist

This is represented by the intersection formed by the three critical elements discussed above, critical reflection, communication, and empathy. Prior to the incorporation of the hospice-based engaged scholarship project the students had a preconceived idea of what their role as a radiation therapist would be. This role focused primarily on the technical aspects of the field and friendly but shallow relationships with the patients. The new viewpoint is more patient-centered; in other words, as described in Chapter Three, the students gained a better understanding of the complexity of the patient's life. They realized that their patients are not just a job but they are people who have preoccupations, desires, need for affection, make decisions, and are going through their own individual journey.

The students acknowledged that patients undergoing treatment for cancer are a unique population similar to hospice patients. They understand that these patients have many needs that the healthcare provider can assist them fulfill. Through building trusting relationships with their patients, they will also be able to help the patient undergo their treatment regimen. The students participating in the research project learned that the time spent with a patient in need is more important than running behind schedule and their job as radiation therapists was to tend to both their physical and the emotional needs of their patients.

To sum up, the students became engaged and invested in this project; they remained excited even after its completion. Four out of the ten students continued to volunteer regularly through the Christmas break and into the following semester. Through this project, Caring Hands Hospice gained ten enthusiastic and eager volunteers who had a lot to bring to their patients. All total, each student volunteered at least nineteen hours. Together as a class, the radiation therapy students provided Caring Hands Hospice with over 190 hours of volunteer work service.

Emergent Tensions as Project Unfolded

The main purpose of this section is to acknowledge and explain tensions that took place during this project. While there were many educational benefits to the implementation of this engaged scholarship project, there were also a few challenges. For example, as a major data source, the students written reflections were vital to understanding and reporting on their experience, and in students gaining deeper meaning of their interactions with the hospice patients (Turesky & Wood, 2010). As many of these students had never participated in a class project such as this, there was a learning curve on my expectations about the reflection entries. The students wanted specifics on page lengths and word count, and when I left it up to them to just write what they felt, some of the students submitted superficial reflections that looked more like an account of the activities they performed visiting their patient. I learned that it was necessary to better explain the purpose of the reflection and while there was no length minimum, they needed to be insightful and not simply a list the topics they discussed with their patient. With practice and prompt feedback on my part, the students became better at reflecting both in writing and during class discussions.

The volunteer orientation sessions were another challenge for me and the students due to the amount of information provided and the substantial time commitment. However, the volunteer orientation was insightful and educational as we learned in Chapter Three. The students reported feeling frustrated because they wanted to meet their patient and begin developing that relationship as soon as possible. They also reported on appreciating the important information provided during these sessions and made reference to this newly acquired knowledge several time throughout the semester. As a matter of fact, the State requires the orientation process to be a specific amount of time and cover a large list of topics. The students and I had a conversation and came to terms about the importance of fulfilling the requirements and respecting the needs of our community partner.

Maintaining this balance between the students' needs and the hospice coordinator's expectations was ongoing even after the volunteer orientation. For instance, she required email interaction after the students visited each time, along with written documentation of the visit, and sometimes a phone call to discuss the patient's needs. The students complied with all of these requirements even though it added to their workload and as the course instructor I was worried that they could become overwhelmed. Fortunately, it worked to the benefit of the students who realized these are also duties of a professional in radiation therapy. It is important to maintain good record of patient's treatment and care.

Pedagogical Implications

This study was implemented in order to fill an identified gap in the literature on adult education and to explore innovative methodologies that better prepare radiation

therapy students to confidently and professionally discuss and address issues of mortality with cancer patients and their family members. Literature by Matzo, et al., (2003) and Shapiro, Rucker, and Robitshek (2006) has shown that lecture is the primary teaching methodology used to enhance student's communication and empathy skills in the medical professions. This has been proven to be ineffective for adult learners, as they primarily gain new knowledge through experience and testing out that knowledge in new scenarios (Dewey, 1938).

The American Society of Radiologic Technologists (2009) recognizes that the development of communications and empathy skills in radiation therapy education is imperative, yet there were no examples in the literature as to how to best develop these skills. This study investigated a unique curricular intervention into the radiation therapy classroom. It documents that in incorporating engaged scholarship projects into the curriculum, radiation therapy students' communication and empathy skills are successfully increased and they become more patient centered healthcare professionals. This teaching methodology also supplies the students with an experience that allows them to critically reflect on how patients are treated in the clinic in order to better meet the needs of patients in the future.

Throughout this engaged scholarship project, students critical reflections were key in their development of new knowledge of the role of the radiation therapist. Students witnessed firsthand positive and negative interactions of healthcare workers in the hospice setting. The guided written reflections offered them the space to document what they saw and how they felt this affected the patient. Through dialogues in class and in

the individual student interviews, students stated how they plan to use what they saw in the future to ensure high quality of care is given to their patients.

The findings of this study can be successfully transferred to many other classrooms where instructors have identified a knowledge deficit that can be successfully filled by developing a partnership within their community who has a specific need. In using the methodology laid out in this study, students can begin to have valuable learning experiences while learning the necessary course objectives and simultaneously fulfilling an important need within the community. The following are recommended steps when considering the implementation of an engaged scholarship project:

Identify an educational need, or a subject matter that needs to be taught in a more meaningful way to the students. This could be a classroom subject that is vitally important to the field; however the importance is not fully understood when taught in the classroom.

Investigate community resources that are available that have the potential to better meet the students' educational needs. Nonprofit organizations, community schools, and churches often have projects that are in need of university resources.

Meet with community partner to discuss proposed project and if this project would be beneficial to them.

Work with community partner to ensure project meets both of your needs and is well organized before implementation.

Create course syllabus and determine how the engaged scholarship project will fit into curriculum, grade, and timeline. Also create alternative assignment for students who choose not to participate.

Create room for reflection to happen, and leave them open to revisions as the semester progresses and students needs or experiences change.

Establish goals for the project. Determine what you want the students to gain from its implementation as well as the community partner.

Evaluate project at completion to identify if students learning needs and community needs were met. Evaluate methodology and look to see how project should be altered in the future to improve outcomes.

Future Research

This study has shown that implementing engaged scholarship projects into the radiation therapy course curriculum is an effective teaching methodology that engages the students and provides them with a unique learning experience. I plan to continue implementing engaged scholarship projects into my courses as the students responded well and gained a deeper understanding of the knowledge as opposed to learning through memorization and lecture. After completing this project I have found that it is imperative that engaged scholarship projects be well thought out and organized in order to be effective. There also must be open communication of needs between the instructor and community partner in order to ensure that both benefit from the partnership. I have also learned that evaluation at the end of the semester is imperative as it allows for changes and improvements in subsequent years.

As I move into my next project I will constantly look for ways to improve my methodology. For example, next year when implementing this same project I will ask that students that are paired with non communicating patients also have a communicating patient so that they receive the full experience. I also will evaluate the student

demographics of next year's cohort. If there are male students, or students older than this sample, I will look to see how their experience differs than this group in order to identify learning needs amongst a wider demographic.

Implementing this engaged scholarship project has also motivated me to continue looking for other avenues where this teaching methodology could be useful, and I hope readers of this research feel motivated to implement engaged scholarship projects for their own classrooms. Another aspect that is currently not being addressed in cancer education that could be benefitted by implementing engaged scholarship projects is cancer education to the general university population. A study by Estaville, Trad, and Martinez-Ramos (2012), identified that there is a severe lack of education on cancer amongst university students who are not health professionals majors. The study showed that the majority of college aged students felt cancer was synonymous with death and identified that they learned little to nothing about cancer during their college years in the classroom, or from friends and family.

An engaged scholarship project could be implemented by any program learning about cancer risks, detection and prevention where students learn about the different types of cancers and then engage in Cancer Awareness Days where they educate other university students as part of their course. This would supply a population of students with vital information, while engaging students in learning course content and gaining confidence in their knowledge and communication skills.

The following are ideas for other researchers interested in the topic in the field:

Implement a similar research project that includes the perspective of the male student in Radiation Therapy; make sure to invite a variety of potential participants from diverse cultural and ethnic background.

Another suggestion is to implement a study examining the perspective of the patient receiving healthcare and hospice service within the framework of engaged scholarship. In addition, consider including key informants from family members of the patient. Besides design a research question exploring what the participating students learned from the practices of the families of the patients in relation to family dynamics and cultural expectations.

Final Thoughts

My personal experience as a researcher and teacher throughout this project has been transformational. This project has given me a greater respect for my students and transformed my views of how to educate this new generation. Many educators are struggling to adapt the way they educate in an age very different to their own (Tagg, 2008). Tagg notes that educators are remaining the same while the students are drastically changing, and so we must begin to alter our teaching methodologies to better suit this new generation. Before this project I was struggling with this same concept.

Through the incorporation of this engaged scholarship project however, I witnessed students excited about learning and engaged in the course and classroom material. I learned that when students of this generation question why they are asked to learn something for a course, it is not because they do not want to learn it, but because they have a genuine necessity to understand the relevance and usefulness of the concept and topic. As adults the students in my class are goal oriented and self-directed learners and I

should keep this in mind at all times when designing the lessons and in my daily practice as a radiation therapy instructor. This project has forced me to reevaluate how I teach each of my classes and I will strive to develop a format for each that better suites the learning needs of the students.

The goals I set out to accomplish during this project were accomplished. I was able to engage the students in a learning experience that captured their attention and exposed them to opportunities to develop and increase their capacity as professionals to feel compassion and empathy toward their patients. As the teacher-researcher, this project enabled me to get out of the classroom and truly see that there are needs within the community in which our university lies, and understand how incorporating engaged scholarship projects into the classroom allows the students to get involved and give back to the community while simultaneously fulfilling the course objectives. It also gave me professional and personal satisfaction knowing that I was not only enhancing the learning and lives of my ten students, but that the effort was multiplied as these students were enhancing the lives of their hospice patients and the radiation therapy patients within the clinic.

Personally as this project comes to an end, my family finds itself a little over one year from the devastating diagnosis of cancer. My husband has now been deemed cancer free for a year after enduring surgery and chemotherapy, and now looking back we are grateful for what we learned through the experience. We know we are lucky that we had the knowledge and insight to detect the cancer early and a passion has been sparked in us to ensure others possess that same knowledge. We have also learned not to take each

other or any day for granted. To be thankful for what we have, and to hope that someday soon a cure is found for this devastating disease.

APPENDIX A
COURSE SYLLABUS

Course Number: RTT 3301

Type of Course: Lecture/ Service Learning

Course Title: Introduction to Radiation Oncology

Prerequisites: Approval from Program Director

Course Description:

This course provides an overview of radiation oncology and the role of the radiation therapist. Presentations will orient the student to the physical and biological basis of radiation equipment, procedures, tumor pathology, and patient interaction. This course has been approved by Academic Affairs as a **writing intensive (WI) course**. The teaching strategies emphasize the development of the student's skills in writing, vocabulary, composition, and critical thinking.

Course Rationale:

The course objective is to introduce different elements of the radiation therapy profession to the new student. The student is exposed to and accountable for learning basic principles relating to cancer care, patient interaction, aspects of technology, and the historical perspectives leading to current practices of cancer management. Instructional strategies in addition to lecture presentations include a literature research and writing assignments, end-of-chapter written essay assignments, video viewing and post-video written assignments, service learning projects, and formal examinations.

Course Objectives:

After the completion of this course, the student should be able to:

1. Understand and apply radiation oncology terminology.
2. Discuss the routes of spread for cancer.
3. Assess psychosocial aspects of the patient as related to the disease
5. Review the operation of radiation therapy treatment machines.
6. Differentiate between the three major treatments for cancer.
6. Review cancer warning signs.
7. Discuss cancer prevention and detection.
8. Gain a knowledge base of the modalities of cancer treatment
9. Gain a knowledge base of the national and global history of radiation.
10. Develop and practice appropriate professional communication skills
11. Understand stages of grieving and the process of death and dying.

Teaching Strategies:

Teaching methods will include guided lecture/ overhead visual/discussion, video presentations, community service projects, independent reading assignments, written assignments.

Required Texts:

Washington, C. & Leaver, D. (2009). *Principles and practice of radiation therapy:*

Introduction to radiation therapy (3rd ed). St. Louis, Missouri: Mosby-Year Book.

Class Activities and Assignments

Documentary Film Series:

The student will be required to view and study a scheduled film series. The purpose of this exercise is to gain knowledge of events leading to the development of current standards, policy, practices, and beliefs regarding radiation exposure and the impact on the individual and societies. This exercise is also meant to support the understanding of textbook material by providing background on topics that the textbook merely mentions when introducing new material. This assignment is relevant for several courses throughout this program. The student will be required to complete an assessment posted on Blackboard or TRACS for each video presentation. Deadlines for the completion of the assessment and electronic de-activation will be posted.

Assignments:

The purpose of the quizzes is to assess student comprehension and to provide incentive for the student to stay on schedule with the textbook reading material. Assignments may consist of homework or off-site presentations and tours.

Major Exams (4) and Final:

A major exam will be provided after each unit. The final exam will be comprehensive and may be optional to the student achieving a major exam average of 90 or above. Exams will consist of a combination of objective, short answer, and essay questions.

Service Learning Projects

Cancer Detection, Risk and Awareness Day

This class will conduct an actual Awareness Outreach Project for the Texas State University Campus.

1. Students will be grouped in groups of 2 or 3.
2. Groups will be assigned a type of cancer.
3. Groups will be responsible for:
 - A. Learning information regarding detection and risks for all populations for their specific cancer type.
 - B. Consulting with Cancer Organizations to obtain brochures and pamphlets for distribution on campus.
 - C. Consulting with Cancer Awareness Organizations to borrow or use any teaching models, computer screening programs, short videos and charts available. Consulting with the department for needed funding.
 - D. Learning as much as possible about the treatments available.
 - E. Participate in a class presentation.
 - F. Conduct an Awareness Day Project on campus.

Hospice-based engaged scholarship project:

Students will undergo orientation to become a hospice volunteer with the Caring Hands hospice of Austin. After completion of orientation, students will be matched with a hospice patient and become their hospice volunteer for the remainder of the semester. Students will be expected to volunteer three hours per month during the fall semester, complete written reflection assignments.

*Students who choose not to participate in this project will complete an alternative assignment writing a literature review on the health professional's role in

working with terminally ill patients and doing an oral presentation in class during the last week of classes. This paper will include a minimum of twenty references and be fifteen pages in length. These references should come from credible and reputable sources in the field and be no older than ten years. In addition, a fifteen-minute oral presentation during the final day of class is expected.

Mandatory Attendance

The instructor encourages class attendance by taking role promptly at the beginning of each class session. Attendance will impact your final grade as follows:

3 absences – grade lowered one letter grade

4 absences – grade lowered two letter grades

5 or more – failure of class

Grading Policy

90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D; BELOW 60 = F

Evaluation

The final course grade will be determined as follows:

30% - Risk and Detection Project

10% - Documentary Learning Assessment

30% - Hospice-based engaged scholarship project*

30% - Major exams / Final

Deadlines for submission of assignments will be posted. Failure to comply with the established deadlines will result in a grade reduction for the tardy submission. Makeup's will be granted at the instructor's discretion and will be essay.

Academic Honesty Statement:

Expectation: We expect students to do their own work on all graded material submitted for all departmental course requirements.

Department Policy:

Students guilty of knowingly using, or attempting to use, another person's work as though that work were their own, and students guilty of knowingly permitting, or attempting to permit, another student to use their work, will receive a grade of "F" for the course. Such conduct may also constitute grounds for dismissal from the University. Students who are unfamiliar with the University's policy on plagiarism should consult the most recent edition of the student handbook. Students who are uncertain regarding what actions constitute plagiarism should consult the instructor.

APPENDIX B

HANDOUT PROVIDED AT VOLUNTEER ORIENTATION

Things a volunteer cannot do:

Even though the resident may request your help with the following situations, liability and resident safety dictate that you please refrain from assisting residents in these areas:

- d. Never assist a resident in or out of the bed or their chairs. You can put their call light on for them or ask a staff member to help
- e. Never assist a resident to the bathroom
- f. Please do not feed residents or bring gifts of food without first checking with nursing staff
- g. Never discuss a resident outside of the hospice; confidentiality is a must!!
- h. Volunteers may not take the resident from the facility grounds
- i. Never give medications of any kind

Things a volunteer can do

- Greet the patient with a pleasant tone
- Initiate conversations with a greeting, smile and a compliment
- Do speak clearly
- Do ask if they have any needs you can assist with
- Provide personal care that is not medicinal

REFERENCES

- Alrubaiee, L., & Alkaa'ida, F. (2011). The mediating effect of patient satisfaction in the patients' perceptions of healthcare quality- patient trust relationship. *International Journal of Marketing Studies*, 3(1), 103-127.
- American Cancer Society. (2010). Cancer Facts and Figures, Retrieved from <http://www.cancer.org/acs/groups/content/@epidemiologysurveillance/documents/docum ent/acspc-026238.pdf>
- American Cancer Society. (2009). Radiation therapy, what it is, how it helps. Retrieved from <http://www.cancer.org/Treatment/TreatmentsandSideEffects/TreatmentTypes/Radiation/ RadiationTherapy-WhatItIsHowItHelps/index>
- American Society of Radiologic Technologists (ASRT). (2009). *Radiation Therapy Professional Curriculum*. Retrieved from https://www.asrt.org/content/Educators/Curricula/RadiationTherapyRTT/therapy_curriculum.aspx
- Ballo, M. T. (2011, February 21). The cancer journey and the road to wellness [Web log post]. Retrieved from <http://www2.mdanderson.org/cancerwise/2011/02/by-matthew-t-ballo-md.html>
- Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: Carnegie Foundation.

- Boyer, E. L. (1996). The scholarship of engagement. *The Journal of Public Service and Outreach*, 1(1), 11-20.
- Bureau of Labor Statistics. (2010-2011). Radiation therapists. *United States Department of Labor*. Retrieved from <http://www.bls.gov/oco/ocos299.htm>
- Butin, D. (2007). Focusing our aim: strengthening faculty commitment to community engagement. *Change*, 34-37.
- Charmaz, K. (2006). *Constructing grounded theory*. Thousand Oaks, CA: Sage.
- Connelly, F., & Clandinin, D. (1999). *Shaping a professional identity: stories of educational practice*/F. Michael Connelly, D. Jean Clandinin, editors; with Sheila Dermer Applebaum...[et al.]. New York: Teachers College Press.
- Cooper, S. T. (2010). Radiation biology case studies and student empathy. *Radiation Therapist*, 19(1), 9-17.
- Creswell, J. W. (2007). *Qualitative inquiry & research design: choosing among five approaches* (2nd ed). Thousand Oaks, CA: Sage.
- Cutcliffe, J. R. (1998). Hope, counseling, and complicated bereavement reactions. *Journal of Advanced Nursing*, 28(4), 754-761.
- Cranton, P., & King, K. P. (2003). Transformative learning as a professional development goal. *New Directions for Adult and Continuing Education*, 98, 31-37.
- Crotty, M. (1998). *The foundations of social research*. Thousand Oaks, CA: Sage.
- Denzin, N. K., & Lincoln, Y. S. (2000). *Handbook of qualitative research*. 2nd ed. Thousand Oaks, CA: Sage.

- Denzin, N. K., & Lincoln, Y. S. (2005). The discipline and practice of qualitative research. In N. Denzin & Y. Lincoln (Eds.), *The sage handbook of qualitative research 3rd ed.* Thousand Oaks, CA: Sage.
- Dewey, J. (1938). *Experience and education.* West Lafayette, IN: Kappa Delta Pi.
- Domangue, E., & Carson R. L. (2008). Preparing culturally competent teachers: service-learning and physical education teacher education. *Journal of Teaching in Physical Education, 27*, 347-367.
- Eberest, R. M. (2007). The future of health professions education: challenges and recommendations for a new framework. *The Health Educator, 39*(2), 79-84.
- Estaville, L., Trad, M., & Martinez, G. (2012). University student understanding of cancer: analysis of ethnic group variances. *Journal of Cancer Education*, DOI 10.1007/s13187-012-0356-x.
- Fein, J. E., Quinonez, R. B., & Phillips, C. (2009). Introducing infant oral health into dental curricula: a clinical intervention. *Journal of Dental Education, 73*(10), 1171-1177.
- Fenwick, T. (2003). *Learning through experience: Troubling orthodoxies and intersecting questions.* Malabar, Florida: Krieger.
- Field, M. J., & Cassel, C. K. (1997). *Approaching death: improving care at the end of life.* Washington, D.C: National Academy Press.
- Fiddler, M., & Marienau, C. (2008). Developing habits of reflection for meaningful learning. *New Directions for Adult and Continuing Education, 118*, 75-85.
- Glesne, C. (2011). *Becoming qualitative researchers: An introduction.* Boston, MA: Pearson Education, Inc.

- Greathouse, G. F., & Dowd, S. B. (1996). Using critical thinking to teach empathy. *Radiologic Technologist*. Retrieved from http://findarticles.com/p/articles/mi_hb3387/is_n5_v67/ai_n28677196/
- Henderson, J., Xiao, L., Siegloff, L., Kelton, M., & Patterson, J. (2008). 'Older people have lived their lives': First year nursing students attitudes toward older people. *Contemporary Nurse*, 30, 32-45.
- Holmström, I., & Röing, M. (2010). The relation between patient-centeredness and patient empowerment: a discussion on concepts. *Patient Education and Counseling*, 79, 167-172.
- Howell, R. T. (2008). Road to success: service learning enhances tech ed experience. *Techdirections*, 14-16.
- Jarvis, P. Holford, J., & Griffin, C. (2004). *The theory and practice of learning (2nd ed)*. Sterling, VA: Taylor & Francis.
- Jensen, S. V., & Burr, K. L. (2006). Participation and learning relationships: a service-learning case study. *Journal of Industrial Teacher Education*, 43(3), 6-28.
- Keen, C., & Hall, K. (2009). Engaging with difference matters: longitudinal student outcomes of co-curricular service-learning programs. *The Journal of Higher Education*, 80 (1), 59-79.
- Kincheloe, J. L. (2003). *Teachers as researchers: Qualitative inquiry as a path to empowerment*. (2nd ed). RoutledgeFalmer. London.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.

- Kolb, D. A., & Fry, R. (1975). Toward an applied theory of experiential learning; in C. Cooper (ed.) *Theories of Group Process*, London: John Wiley.
- Knowles, M. S., Holton, E. F., & Swanson, R. A. (2005). *The adult learner: the definitive classic in adult education and human resource development*. Burlington, MA: Elsevier.
- Kubler-Ross, E. (1969). *On death and dying*. New York, NY: Scribner Classics.
- Laakkonen, M. L., Pitkala, K. H., & Strandberg, T. E. (2004). Terminally ill elderly patients experiences, attitudes, and needs: a qualitative study. *OMEGA*, 49(2), 117-129.
- Leo, F., Radice, D., Didier, F., Carvalho, F. B., Spacca, E., Madini, M., Esposito, C., Agnello, M., Meneghin, S., & Spaggiari, L. (2009). Does a personalized approach improve patient satisfaction in thoracic oncology? *The American Journal of Managed Care*, 15(6), 361-367.
- Love, A. W. (2007). Progress in understanding grief, complicated grief, and caring for the bereaved. *Contemporary Nurse*, 27, 73-83.
- Maciejewski, P. K., Zhang, B., Block, S., & Prigerson, H. G. (2007). An empirical examination of the stage theory of grief, *JAMA: Journal of the American Medical Association* 297: 716–723.
- MacLean, M. S., & Mohr, M. M. (1999). Teacher-researchers at work. National Writing Project.
- Matzo, M. L., Sherman, D. W., Lo, K., Egan, K. A., Grant, M., & Rhome, A. (2003). Strategies for teaching loss, grief, and bereavement. *Nurse Educator*, 28(2), 71-76.

- Merriam, S. B. (2001). Andragogy and self-directed learning: Pillars of adult learning theory. *New Directions for Adult and Continuing Education*, 89, 3-13.
- Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood (3rd ed)*. San Francisco: Jossey-Bass.
- Merriam, S. B. (2009). *Qualitative research: a guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Miettinen, R. (2000). The concept of experiential learning and John Dewey's theory of reflective thought and action. *International Journal of Lifelong Education*, 19(1), 54-72.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.
- Mezirow, J. (1997). Transformative learning: theory to practice. *New Direction for Adult and Continuing Education*, 74, 5-12.
- Mezirow, J. (2000). Learning to think like an adult: Core concepts of transformation theory. In J. Mezirow & Associates, *Learning as transformation: Critical perspectives on a theory in progress (pp. 3-33)*. San Francisco: Jossey-Bass.
- Moon, J. A. (2004). *A handbook of reflective and experiential learning: theory and practice*. London: Routledge Falmer.
- Newsome, B. R., & Dickinson, G. E. (2000). Death experiences and hospice: perceptions of college students. *Death Studies*, 24, 335-341.
- Noddings, N. (2007). *Philosophy of education (2nd ed)*. Boulder, CO: Westview Press.

- Oflaz, F., Arslan, F., Uzun, S., Ustunsoz, A., Yimazkol, E., & Unlu, E. (2010). A survey of emotional difficulties of nurses who care for oncology patients. *Psychological Reports, 106*(1), 119-130.
- Patterson, L., & Shannon, P. (1993). Reflections, inquiry, action. In L. Patterson, C.M. Santa, K.G. Short, & K. Smith (Eds.), *Teachers are researcher: reflection and action*. Delaware, NY: International Reading Association.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods*. Thousand Oaks, CA: Sage.
- Rich, S. (2005). Providing quality end-of-life care. *Journal of Cardiovascular Nursing, 20*(2), 141-145.
- Rudestam, K. E., & Newton, R. R. (2007). *Surviving your dissertation* (3rd edition). Thousand Oaks, CA: Sage.
- Saldaña, J. (2009). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage.
- Sandlin, J. A. (2005). Andragogy and its discontents: An analysis of andragogy from three critical perspectives. *PAACE Journal of Lifelong Learning, 14*, 25-42.
- Sanner, M. A. (1997). Encountering the dead body: Experiences of medical students in their anatomy and pathology training. *OMEGA, 35*, 173-191.
- Savicevic, D. (2008). Convergence or divergence of ideas on andragogy in different countries. *International Journal of Lifelong Education, 27*(4), 361-378.
- Schön, D. A. (1983). *The reflective practitioner*. New York, NY: Basic Books.

- Seifer, S. D., Hemanns, K., & Lewis, J. (2000). Creating community- responsive physicians. [Monograph]. *AAHE series on service learning in the disciplines*, 18-26.
- Shapiro, J., Rucker, L., & Robitshek, D. (2006). Teaching the art of doctoring: An innovative medical student elective. *Medical Teacher*, 28(1), 30-35.
- Sharma, S., Monsend, R., & Gary, B. (1997). Comparison of attitudes toward death and dying among nursing majors and other college students. *OMEGA*, 34, 219-232.
- Sivesind, D., Parker, P. A., Cohen, L., DeMoor, C., Bumbaugh, M., Throckmorton, T., Volker, D. L., & Baile, W. F. (2003). 'Communicating with patients in cancer care; What areas do nurses find most challenging?', *Journal of Cancer Education*, 18: 4, 202 -209.
- Stillion, J. M., & Papadatou, J. (2002). An examination of psychosocial issues in children and adolescents with terminal illness. *American Behavioral Scientist*, 46(2), 299-315.
- Tagg, J. (2008). Changing minds in higher education: student's change, so why can't colleges. *Planning for Higher Education*, 37(1), 15-22.
- Taylor, E. W. (2007). A learning model for becoming interculturally competent. *International Journal of Intercultural Relations*, 18(3), 389-408.
- Taylor-Powell, E. & Renner, M. (2003). *Analyzing qualitative data*. Madison, WI: Cooperative Extension Publishing Operations.
- Turesky, E. F., & Wood, D. R. (2010). Kolb's experiential learning as a critical frame for reflective practice. *Academic Leadership*, 8(3): 116-129.
- Turley, C. (2009). Fostering reflective practice. *Radiation Therapist* 18(1): 66-68.

- Välimäki, M., Haapsaari, H., Katajisto, J., & Suhonen, R. (2008). Nursing students' perceptions of self-determination in elderly patients. *Nursing Ethics, 15*(3), 346-359.
- Warren, V. L. (1991). The 'medicine is war' metaphor. *IIEC Forum, 3*(1), 39-50.
- Washington, C. M., & Leaver, D. (2010). *Principles and practice of radiation therapy education*. St. Louis, Mo: Mosby.
- Webster, D. (2010). Promoting empathy through a creative reflective teaching strategy: a mixed methods study. *Journal of Nursing Education, 49*(2), 87-94.
- Whitmore, K. F., & Crowell, C. G. (1994). *Inventing a classroom: Life in a bilingual whole language learning community*. York, ME: Stenhouse.
- Winefield, H. R., & Chur-Hansen, A. (2000). Evaluating the outcome of communication skill teaching for entry-level medical students: does knowledge of empathy increase? *Medical Education, 34*, 90-94.
- Woods, P. (1993). Critical events in education. *British Journal of Sociology of Education, 14*(4), 355-371.

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