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Self-Efficacy and Situated Learning in the Clinical Learning Environment

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SELF-EFFICACY AND SITUATED LEARNING IN THE CLINICAL LEARNING

ENVIRONMENT

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Abstract

A strong sense of self-efficacy, as claimed by Bandura (1986), increases performance, motivation and overall interest in the subject matter that will theoretically improve competency in student nurses. Situated learning and its social context, where theory is applied in authentic practice, is a critical component of nursing education. This article examines two social learning theories that are implicit in clinical nursing education. If educators can better understand the relationship between the two, they will be able to optimize the clinical learning experience that is such a crucial part of the education of our future nurses.

Keywords: self-efficacy, mastery, vicarious learning, verbal persuasion, anxiety, stress, situated learning, communities of practice, legitimate peripheral participation

Self-efficacy and Situated Learning in Clinical Nursing Education

Introduction

Nursing practice demands integration of skilled know-how, knowledge, clinical reasoning and ethical conduct (Benner, Sutphen, Leonard, & Day 2009). Rapid advancement of technology, and science, as well as increased patient involvement in their own care have changed the practice of nursing and increased the intellectual, mental, and physical demands on every nurse. The complex health care environment with increased patient acuity, changes in technology and informatics, increased staff matrices and diminished resources requires nurses entering the profession to possess strong self-efficacy to meet those challenges. In addition to increasingly complex health care, the nation is facing a nursing shortage that will be staggering in numbers. Because of this projected shortage, schools of nursing have made significant efforts to maximize the number of students graduating from their programs. This attempt to meet the need for more nurses quickly will likely result in nurses who are not adequately prepared intellectually or emotionally for their first job.

The effort to increase nursing student enrollment is being stymied in many ways and has created unintended worsening of the problem. For example, the increase in student numbers has created an overwhelming burden on healthcare facilities to provide clinical learning opportunities. This burden on healthcare facilities is diluting available educational resources by skewing instructor-student and staff-student ratios and creating a shortage of clinical sites and available clinical hours necessary for adequate preparation of competent nurses (Benner et al., 2009). Therefore, insufficient on-site clinical practice education presents a barrier to student nurses developing the competence necessary to manage highly complex patient care.

Clinical education is essential to any practice profession and is no less important to learning how to practice nursing. While nursing students gain much of their fundamental knowledge and theory in the classroom, the clinical practice environment experiences provide students the opportunity to draw on knowledge they have learned in school and to apply it to patient care within the authentic domain of a clinical practice (Benner et al., 2009). Importantly, participation in the authentic clinical environment gives nursing students the opportunity to develop self-efficacy required to solve clinical problems, communicate with other health-care team members, and utilize their skills (Benner et al., 2009). Ultimately, this insufficient on-site education undermines the students' ability to gain crucial self-efficacy required for effective nursing.

Acknowledging that nursing educators are challenged with teaching more in less time, and with fewer resources, it becomes imperative that faculty optimize the learning experiences. Education has traditionally been inundated with new ideas of teaching and learning and this holds true for nursing education as well. Thus effective teaching requires teachers to use, expand, construct or reconstruct emerging theories of teaching. This means nursing educators must identify and disseminate effective new methods of teaching, as well as tried and true methods. An examination of tested social cognitive concepts of learning is an imperative step in providing clinical nursing instructors guidance in refining their methods and creating optimal learning situations. In an effort to build a theoretic foundation to guide the strategies of teaching necessary to foster optimal and deep learning by nursing students, this article will investigate and synthesize two of the tested social cognitive theories of education - *self-efficacy* and *situated learning*.

Self-Efficacy

The concept of self-efficacy was defined by Albert Bandura (1994) as "the belief in one's own capabilities to produce desired effects by one's own actions." Self-efficacy is best understood in the framework of Bandura's social cognitive theory (1986), which explains human behavior in terms of continuous shared interaction between cognitive, behavioral, an environmental influences.

Self-Efficacy in Nursing Education–Literature Review

Using the term *self-efficacy*, the following databases were accessed in order to find applicable literature for this article: Science Direct, MeSH/PubMed and CINAHL. The results of the search revealed that *self-efficacy* has been examined and used extensively in psychology, education, and health care fields because of its application to learning and behavior change. A review of twenty one articles on self-efficacy in nursing education revealed that much of the current literature linking the theoretical concepts of self-efficacy to nursing education has addressed preparation of students *for* the clinical setting in the skills laboratory using simulation methodology (Burke & Mancuso, 2012; Cordoza & Hood, 2012; Haffer, & Raingruber, 1998; Kaddoura, 2012; Pike & O'Donnell, 2010; Thomas & Mackey, 2012; Wagner, Bear, & Sander, 2009). There is strong evidence in this same literature that suggests simulation helps in building student self-efficacy in psychomotor skill development, communication, and critical thinking (Burke & Mancuso, 2012; Cordoza & Hood, 2012; Haffer, & Raingruber, 1998; Kaddoura, 2012; Pike & O'Donnell, 2010; Thomas & Mackey, 2012; Wagner, Bear, & Sander, 2009). However, this search of literature on self-efficacy in nursing education indicated a lack of evidence specifically addressing the transfer of perceived self-efficacy from the simulation lab to

the real-life setting. In addition, there was a paucity of research regarding the acquisition of self-efficacy *in* the situated learning environment (the clinical setting).

The basic premise of self-efficacy theory is that belief in one's capabilities provides the most important indicator of what behaviors one will chose and how much effort will be expended in the face of challenging situations and obstacles. It must be noted that self-efficacy is not the same as self-esteem. Self-esteem relates to self-worth, whereas self-efficacy relates to an individual's *perception* of their ability to achieve their goals (Bandura, 1994).

Bandura (1994) proposed that self-efficacy is not an inborn trait, but one that results over time and through experiences from complex mental processes of "self-persuasion" within a specific domain. This important distinction means that outside influences will affect the mental processes. There are four sources of outside influence: *mastery experiences, vicarious experiences, verbal persuasion*, and influences from *physiological and emotional states*.

Mastery experiences.

Mastery experiences are the most influential outside influences on development of a strong sense of self-efficacy (Bandura, 1994). Successful performance and attainment of goals facilitate a strong belief in one's capabilities. This in turn motivates the learner to pursue more complex goals. The experiences, however, must be authentically challenging or the student may falsely expect success every time and then be unable to cope with failure. Bandura (1994) stressed that some setbacks and difficulties serve useful purposes to teach perseverance and sustained effort, but these should come after a sense of self-efficacy is established because individuals tend to avoid activities and situations that they believe are outside their abilities.

Vicarious experiences.

The second source of outside influence is through vicarious experiences or modeling. Individuals seek out expert models that have the competencies to which they aspire (Bandura, 1994). Seeing individuals' similar to oneself succeed by persistent effort raises observers' beliefs that they also have the capabilities to master similar experiences. The impact of the experience is strongly influenced by perceived similarities to the model, i.e. the greater the similarities the greater the influence will be, and the less similarities the less likely self-efficacy will be influenced.

Verbal persuasion.

Verbal persuasion, the third outside influence, strengthens an individual's belief that he or she has what it takes to be successful (Bandura, 1994). Individuals who are verbally encouraged through social interactions are more likely to be motivated to achieve goals and give sustained effort, even in difficult times (Bandura, 1994). Positive verbal persuasion plays an important role in the strengthening of a person's belief in his or her self-efficacy. Negative verbal persuasion, on the other hand, can work to defeat and weaken self-efficacy beliefs. Individuals whom are told they lack ability tend to give up easily, avoid challenging activities, and disengage from the learning situation (Bandura, 1994).

Physiologic or emotional states.

The fourth source of outside influence on an individual's belief in his or her self-efficacy is their own physiologic or emotional state. Physiologic/emotional feelings can affect how people perceive their capabilities and their self-efficacy to handle situations (Bandura, 1994). Somatic and emotional responses can range from extremely positive to negative feelings. Positive moods and a sense of mild anxiety or arousal can enhance perceived self-efficacy,

whereas negative moods diminish it. Bandura (1994) believed that it is not because of the intensity of the reaction but rather the individual's perception and interpretation of those reactions.

Situated Learning

The *situated learning* philosophy has made a significant impact on education since it was first developed by Brown, Collins, and Duguid (1989), in the late 1980's. This team argued that meaningful learning only takes place in the social and physical context in which it is used. They further proposed the idea of *cognitive apprenticeship,* a method that acculturates a student into authentic practices "through activity and social interaction" (Brown et al., 1989, p. 34). Lave and Wenger (1991) further developed the concept of situated learning and proposed that a critical aspect of the model is the notion of apprenticeship within a *community of practice*. Learners become acculturated into a community of practice where learning takes place within the framework of social participation rather than within the individual circumstance (Lave & Wenger, 1991). The central construct of the situated learning philosophy is that knowledge and skills are learned in the socio-cultural setting and these are applied in everyday situations within the community of practice (Lave & Wenger, 1991). They coined the term *legitimate peripheral participation,* as not an educational form or strategy, but as an analytical view of understanding how learning happens within the *community of practice* (Lave & Wenger, 1991, p. 40). In this article the term is used to describe how the learner progressively participates and is acculturated into the community (Lave & Wenger, 1991).

Literature Review - Situated Learning

A search of the databases of MeSH/PubMed, CINLAH, and Google Scholar located thirteen articles regarding situated learning in nursing education. From the review it is apparent

that while a great deal of nursing education has traditionally taken place within the clinical situated learning environment, there is not much research from schools of nursing in the United States demonstrating application of this model to the education of nursing students. Twelve of the thirteen articles reviewed were written by authors from the United Kingdom where there was a change in nursing education in the early 1990's called Project 2000 (Lord, 2002). Prior to Project 2000, nursing training in the UK was carried out within a hospital-based school of nursing where nurses carried out their studies and worked on the hospital wards. A push towards establishing nursing in a more professional light meant a more academic approach, which led to a move into higher education with nurses studying within a university setting. This is similar to the approach found in diploma schools of nursing in the United States before 1970 (Lord, 2002).

One of the strengths of the U.S. system of nursing education has been that students work directly with patients and other members of the health care team as part of their integrative nursing education (Benner et al., 2009). While most of the reviewed articles were from researchers abroad, their application is applicable to all nursing education today. The reviewed articles and material reported that situated learning has been effective in helping students engage, become competent, develop identity, and commit to professional nursing practice (Andrew, Tolson, & Ferguson, 2008; Andrew & Ferguson, 2008; Bahn, 2001; Benner et al., 2009; Cope, Cuthbertson, & Stoddart, 2000; Lisko, 2010; Melincavage, 2011; Spouse, 1998; Spouse, 2001; White, 2010). Benner et al. (2009) stressed that nursing education that stops short of effective student "formation" leaves the learner with only abstract knowledge that is not accessible in clinical situations (p. 88). In other words, nursing education must continue to effectively use the clinical site as a way to integrate theory and practice.

Active student involvement is crucial to learning the practice of nursing. Lave and Wenger (1991) coined the term *legitimate peripheral participation* to describe the process of a newcomer entering the world of knowledgeable experts and engaging in basic to increasingly complex activities while also acquiring an identity as a member of the community of practice. Modeling and mentoring by an expert of the community are fundamental to the process (White, 2010). When students move into the community of practice and social structure they begin to copy behaviors, learn the language of the group, and perform like the group (Melincavage, 2011). Benner et al. (2009, p. 25) redefined *apprenticeship* to mean integrative learning that gives learners, within the situated learning environment, the chance for coach-supervised practice in an authentic setting. This "yields the complex, open-ended, skilled knowledge required for learning" how to be a nurse (Benner et al 2009, p. 42).

Similar to Bandura's (1986) social learning theory, social interaction is a critical component of situated learning. Situated learning requires collaboration and active-learning teaching methods as the means of acquiring knowledge. Lave and Wenger (1991) proposed that learning should be centered on the whole person, as a result of interaction of three elements: identity, situation and active participation. The person is an active participant in the situated community and an active participant in the development of his or her own identity within the authentic practice environment (Wenger, 1998). Membership into the community implies a commitment to the domain and is a matter of mutual engagement that must be negotiated between individuals (Wenger, 1998).

A situated learning environment provides an authentic context that reflects real-life and its complexities (Brown et al., 1989). The practice of the community creates the "curriculum" where formal knowledge and practical knowledge become entwined and inseparable (Lave &

Wenger, 1991) and as such, subject matter develops from the situations and from dialog between members of the community. Lave and Wenger (1991) described the process of obtaining knowledge in the situation as the "way in" and "practice". The student observes the master first and then makes an attempt to solve the problem using theoretical concepts and knowledge, thus opening the door to membership in the community of practice. As the student refines and perfects the application of the acquired knowledge ("practice") they are transformed into a member of the community. Stein (1998) proposed that situational learning has four elements.

1) *Context* – the learning environment must be attuned to the outcomes the student must master and includes the situations, values, beliefs, struggles of the community.

2) *Content* – situated learning puts emphasis on higher-order thinking, which links theory to practice. The teacher, in dialog with the student, negotiates the meaning of content and reframes it in terms of the learning needs of the student.

3) *Community of practice* – the community provides the experiences and includes collaboration and the sharing of knowledge between all participants in the setting.

4) *Participation* – the interchange of ideas and knowledge and the interactions and engagement of the learner with others in the community. Education becomes a social process.

Recommendations for Facilitating Student Self-Efficacy in a Situated Learning Environment

The previous discussion illustrated the complexity of the situated learning environment. In order for this complexity to enhance the student learning environment there must be a framework that facilitates and optimizes the environment. This section will recommend ways that self-efficacy provides such a framework. The following discussion approaches the four

sources of influence discussed above as separate components. It is crucial, however, to note that the influencing sources do not exist in isolation of each other. Application of the findings from the reviewed literature on clinical simulation in the laboratory setting will be used in the synthesis of not only the two learning theories but also the influencing sources. This synthesis establishes successful strategies for enhancing students' confidence, metacognition, critical thinking, socialization and role development in the clinical setting. Figure 1 below represents this combination of Stein's (1998) proposed elements of situational learning with Bandura's four influences of self-efficacy (keeping in mind that no one element or influence is in isolation of the others). This figure depicts the student as center in the situation (the clinical setting) and demonstrates the ongoing interaction of the four concepts of situated learning (content, context, participation, community) with the four significant influences that can help a student develop a sense of self-efficacy (mastery, vicarious, verbal, psychosomatic) within it.
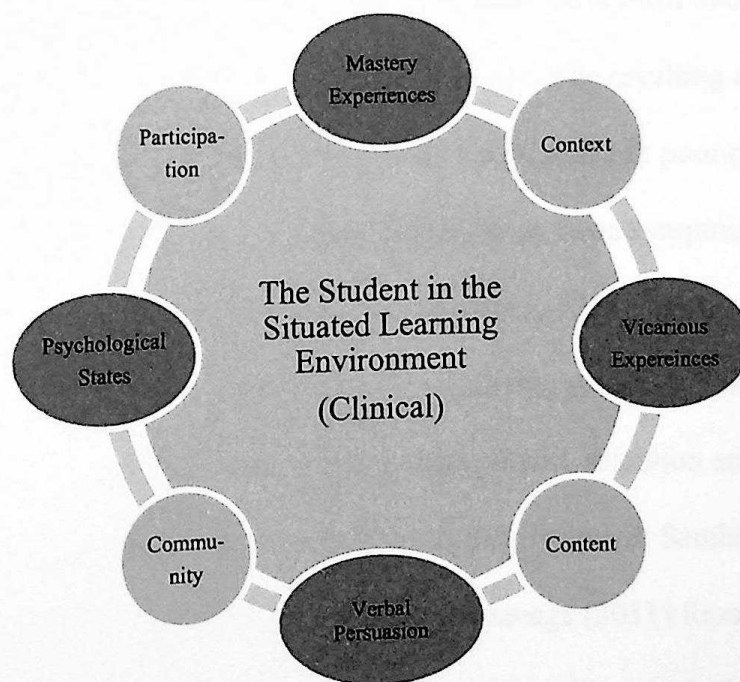

Figure 1. Graphic interpretation of the incorporation of Stein's (1998) proposed elements of situational learning with Bandura's four influences of self-efficacy.

Barriers to Student Development of Self-Efficacy in the Situated Learning Environment

Clinical education takes place in environments that are inherently stressful, demanding, and unpredictable causing nursing students to feel anxious, disempowered, and devalued (Bradbury-Jones, Irvine, & Sambrook, 2010; Melincavage, 2011; Moscaritolo, 2009). These emotional states can cause impaired recall of knowledge, disengagement, and decreased ability to learn and solve problems. When students are faced with the demands of a stressful environment, those with anxiety and self-doubt about their efficacy, become inconsistent in their critical thinking, lose their impetus and the quality of their performance deteriorates (Bandura, 1994). If failures weaken students' perceived self-efficacy, they become anxious about the demands of the experience (Bandura, 1993). Consequently self-efficacy can be severely diminished in the complex environment where critical situated learning takes place (Goff, 2011; Melincavage, 2011). Furthermore, students are left feeling less able to manage and control the anxiety (Bandura, 1994). A weak sense of self-efficacy to exercise control over stressors activates the autonomic system and the flight-or-fight response. The resulting tremors, dry mouth, sweaty hands, palpitations, and feeling ill or faint could result in poor performance (Bandura, 1994; Melincavage, 2011). The student may interpret these symptoms as signs that they are not capable of succeeding at a particular task (Bandura, 1994).

The nursing literature on the lived experiences of nursing students in the clinical setting demonstrates that there are many stressors that effect engagement, retention and performance (Bradbury-Jones, Sambrook, & Irvine, 2011; Bradbury-Jones, Irvine, & Sambrook, 2010; Melincavage, 2011; Goff, 2011; Moscaritolo, 2009). Melincavage (2011) found that many students have feelings of powerlessness and vulnerability within the community of practice, which included being uncertain about personal ability, fear of being exposed, and concern about

being abandoned and left to fend for themselves. Stressful relationships existing between students and staff can exacerbate the stress. Melincavage (2011) wrote that students reported being demeaned, belittled, and humiliated in the clinical setting. These feelings can lead to depression, lack of motivation, anxiety, and lack of direction (Levett-Jones & Lathlean, 2008). The study by Melincavage (2011) on student anxiety in the clinical setting told of student experiences with staff nurses that were overly critical, rude, or that did not engage the students. This behavior is not only offensive, but it can have long term effects on self-efficacy and may result in the future nurse mistreating students in the same fashion when he or she becomes a staff nurse (Melincavage, 2011). In reality, the lack of acceptance and incivility serves to fuel a downward spiral resulting in low self-efficacy and increased anxiety making learning difficult.

Lave & Wenger (1991) suggest that acculturation into the community of practice depends on acceptance of the "newcomer", but several of the articles reviewed suggest that this necessary acceptance does not always happen. Staff may be unable or unwilling to bring nursing students into the community for a variety of reasons (O'Connor, 2006). Levett-Jones & Lathlean (2008) discuss a study by Nolan (1998) that described the need of students to "fit in" and to feel included and accepted by staff as a preface to their learning and participation. Conversely, social exclusion impedes cognition. Although a level of anxiety is expected because of the unknown environment, the feelings may be compounded when the student also perceives a lack of inclusion (Levett-Jones & Lathlean, 2008). The short-term nature of a clinical course can also make it difficult for students to feel like a part of the team. This can cause feelings of isolation and powerlessness, further damaging student feelings of self-efficacy (Cope, Cuthbertson, Stoddart, 2000; Melincavage, 2011). The unfortunate reality is students may not be automatically

welcomed into a community of practice and this in turn impacts their ability to fully participate in the practice.

Several studies also suggest that stressful relationships with mentors or faculty can also result in poor performance and lowered self-efficacy (Del Prato, Bankert, Grust, & Joseph, 2011; Goff, 2011; Haffer & Raingruber, 1998; Melincavage, 2011). In the study by Del Prato et al. (2011) students ranked relationships with faculty as their fourth greatest stressor. Nursing students in the same study reported faculty incivility, which led to negative learning experiences. Bandura (1977) suggested that positive feedback from experts and authority figures strongly influences an individual's sense of self-efficacy. Sadly, the evidence shows that faculty incivility in the clinical environment is negative feedback that can impede the development of a nursing student's efficacy and performance.

Setting the Stage For Student Development of Self-Efficacy

Clinical nurse educators are under a tremendous amount of pressure to teach an increasing amount of information in a short time and to ensure that nursing students utilize this knowledge in a safe and effective manner when learning to care for patients (Benner et al., 2009; Del Prato et al., 2011; Goff, 2011). However, learning cannot take place in an unsuitable environment; Bandura (1997) posited that self-efficacy beliefs, and influence of the learning environment on shaping those beliefs, ultimately influence behavior. At the end of the day, it is the educator's responsibility to ensure that students are learning in the best environment possible.

Nursing research has found that learning environments that are empowering increase student motivation, confidence and promote self-directed learning (Livsey, 2009). Before any attempt at increasing student self-efficacy in clinical learning, faculty ascertain the site can provide sufficient opportunities for learning, that there are staff that are willing to teach, and that

there is support for students and their learning (Burke & Mancuso, 2012; Livsey, 2009). Effective communities of practice involve collaborative working where there should be opportunities for academics and clinicians to work together to generate practice based knowledge and *to* integrate that practice with theory (Andrew & Ferguson, 2008; Levett-Jones & Lathlean, 2008; Wenger, 1998, 2002).

Because the situated learning experience plays such a critical role in the development of nursing students, schools of nursing need to ensure clinical educators have not only the required skills, but also that they actively demonstrate positive leadership (Livsey, 2009). Wenger (1998) stressed that educators are part of the community of practice and constitute learning resources for all participants. Clinical nurse educators that model leadership behaviors provide an element of structural empowerment, which gives strength to the relationships of the participants and increases student motivation and perceived self-efficacy (Livsey, 2009). Livsey (2009) also stated that the clinical educator's interpersonal relationship skills were the most important factor of whether students' perceived the instructor as effective of ineffective (p. 3). It is therefore necessary for nurse educators to understand the impact of not only the social and environmental factors, but also the direct influence of their behaviors on the students learning experiences within the situated learning setting.

Physiologic/Emotional States

Some student anxiety is expected because of the unknown environment inherent to clinical experience (Levett-Jones & Lathlean, 2008). It is vital for clinical educators to be aware of the anxiety students have in the situated learning environment. It is equally important that educators monitor the effects of anxiety on students' ability to participate in a safe manner (Moscaritolo, 2009). The student, faculty, and staff nurses must take intentional action to help

the student manage feelings of fear and anxiety, especially when symptoms begin to affect performance and participation. Nursing students, who are able to manage their anxiety when confronting stressful situations, will develop a stronger sense of self-efficacy towards the tasks and will have a better chance at reaching their clinical goals (Bandura, 1993, 1994; Thomas & Mackey, 2012). By guiding anxious student nurses towards stress reduction strategies and positive coping mechanisms, the clinical nurse educator can help them feel supported and capable of meeting the challenges of entering the community of practice as a newcomer Melincavage, 2011).

As noted previously, a major source of stress and anxiety for nursing students is unsupportive staff and faculty. A respectful, accepting attitude from community participants helps students feel more valued, helps alleviate anxiety in the clinical setting, and helps promote self-efficacy (Bradbury-Jones et al., 2011, Del Prato et al., 2011; Melincavage, 2011; Ousey, 2009). The relationship between the student and staff nurses is not only essential for support and teaching, but also facilitates the move from the periphery into the community (Ousey, 2009). The newcomer that is helped to engage, be assertive, and encouraged to participate, feels empowered and motivated to become part of the group (Melincavage, 2011). A caring environment engages students, mentors and faculty in learning through mutual respect (Del Prato et al, 2011). Caring environments can impact new graduates' ability to function in a caring manner (Livsey, 2009). Student/staff/faculty relationships require collaboration, support, good communication and rapport, through a humanistic approach for positive outcomes of student learning and self-efficacy in the situated learning environment.

Verbal Persuasion

Bandura (1977) proposed that verbal persuasion from others who are perceived as experts exerts influence on the student's sense of self-efficacy, self-esteem and competence. The style and content of the feedback is important. Effective feedback includes timely identification of work that the student is doing correctly, as well as specific changes necessary for improvement, while at the same time provides opportunities for guided practice (Margolis & McCabe, 2004). Bandura (1994) proposed that feedback which compliments the skill, rather than just focusing on the effort, develops higher self-efficacy and learning. This concept can be illustrated by a nursing instructor who reinforces the effort and encourages persistence by linking new challenges to recent successes in a timely manner (Lundberg, 2008). Teaching students to attribute success to the skill, and lack of effort to failure, results in higher expectations for future skill development. Students are able to cognitively evaluate their progress when feedback is specific, genuine, and earned. Positive and corrective feedback not only informs, it also motivates (Bandura, 1997).

Successful efficacy builders do more than just give praise; they raise students' beliefs in their own capabilities, and structure situations that foster future success (Bandura, 1994). The feedback clinical faculty provides to nursing students should be conveyed in a respectful, straightforward and honest manner that encourages the student to corroborate and clarify the meaning (Espeland & Shanta, 2001). Gaberson and Oermann (2010) suggested that nursing students have fluctuating needs for amounts of feedback and positive reinforcement at different times in their education. In the beginning of practice, or with new experiences most students need frequent, specific feedback. As students progress and become more competent, the goal is for each to become responsible for self-assessing performance. Reinforcing positive performances, and problem solving, increases the likelihood that students will be motivated to

repeat the same behaviors and feel empowered (Bandura, 1994; Espeland & Shanta, 2001; Melincavage, 2011).

Several of the reviewed articles, as well as Benner et al. (2010), discuss the clinical instructor's role as "coach" rather than "teacher" (Cope et al, 2000; Espeland &Shanta, 2001; Spouse, 2001; Tilley, Allen, Collins, Bridges, Francis, & Green, 2007). A good coach can help students overcome anxiety and help them take control of their own learning (Benner et al, 2009). An effective coach helps the student relate clinical experiences to past experiences and helps the student develop realistic expectations of her/his clinical skills. Teaching and encouraging students to ask questions is an important step for students to take to engage in the community of practice. Asking questions can create collegiality, opportunities for mutual growth and create opportunities for critical reasoning (Espeland & Shanta, 2001; Konradi, 2012; Benner et al., 2009). Questions give the clinical instructor opportunities to verbally encourage the student to delve into the subject material and highlight its importance (Benner et al., 2009).

Engaging students through questioning promotes higher-level problem solving, increased-use of evidence for practice, transfer of classroom knowledge to clinical, and discloses assumptions and anxieties (Konradi, 2012). The educator is crucial to student learning through dialog within the situated environment, because it is the educator who ensures the students are "framing" meanings and linking theory to practice (Roberts, 2012; Tilley et al., 2007). The role of the instructor, as coach within the clinical experience includes letting the student make incorrect decisions during the dialog, but guiding them through the gaps in clinical judgment to reach the correct decision. It is this important process of dialoging about the decision-making process that builds student self-confidence in their clinical judgment.

Another significant finding related to verbal persuasion from the self-efficacy literature is the importance of debriefing and reflection (Burke & Mancuso, 2012; Lundberg, 2008; Spouse, 1998; Tanner, 2006; Thomas & Mackey, 2012). There was agreement amongst the studies that debriefing promotes student learning by focusing on self-diagnosis, or self-reflection, which allows critical examination of the student's interactions and interventions. Reflecting or debriefing after a skill is performed, or in post-clinical conferences, requires student responsibility for connecting actions with outcomes (Tanner, 2006). Reflection, either by journaling or debriefing, can also provide the clinical educator with a tool to assess student anxiety as well as self-efficacy (Lundberg, 2008). These types of verbal persuasion provide the backdrop for the second source of influence, vicarious experiences in which students move to learning through observation.

Vicarious Experiences

Self-efficacy is also developed through vicarious experiences within the situated environment. Bandura (1977) considers modeling as one of the most powerful means of transmitting patterns of thought; and through vicarious learning, students gain cognitive skills and behaviors. "Most human behavior is learned observationally through modeling; from observing others, one forms an idea of how new behaviors are performed, and on later occasions this could serve as a guide for action" (Bandura, 1977, p. 22).

To create a community of practice, students must be acculturated into practice setting. Facilitating student enculturation into the community of practice enables a deeper understanding of some of the cultural norms, which provides the means to be part of the collaborative process within the practice environment (Andrew & Ferguson, 2008; Andrew, et al, 2008; Bahn, 2001; Brown, Collins, Duguid, 1989; Spouse, 1998; White, 2009). A collaborative approach to learning

in the clinical environment is accomplished through the aid of mentors and models. The aim of role modeling is to allow students the opportunity to observe the health care team, as well as learn about the attitudes and interactions involved in dealing with patients and each other (Ousey, 2009; White, 2010). Nursing students assimilate information by observing, listening, problem solving, and reflecting and therefore learn vicariously through modeling of the healthcare team and faculty.

Students are motivated to develop skills similar to those possessed by the people they admire (Bandura, 1994). However, observation is not sufficient to develop the skills necessary for nursing practice. Benner et al. (2009) described several instances of how situated learning has always been the hallmark of nursing education (p. 41), but they stress that it is almost impossible to limit learning to observation and peripheral participation (p. 26). Nursing students who are not necessarily skilled enough to play a central role in care teams are still given authentic responsibilities, which are peripheral to the situation, and this creates opportunity for learning through legitimate peripheral participation (White, 2010; Lave & Wenger, 1991). The sponsorship of the co-assigned nurse, or "expert", is fundamental to the developmental process of the nursing student. Students are given opportunities to contribute to the day-to-day activities of hospital unit. As the students become more competent, they are challenged with more skills and learning opportunities (Burke & Mancuso, 2012). The students move from legitimate peripheral participation towards full participation as they become more capable and self-efficacious, The level of participation should always take into account the students' readiness and abilities to learn (Bandura, 1994).

The review of literature demonstrated that nursing students also develop stronger self-efficacy through vicarious experiences with their peers and clinical faculty (Lundberg, 2008;

Moscaritolo, 2009; Roberts, 2010; Thomas & Mackey, 2012). Students reported that working with peers was effective in promoting their learning (Sinclair & Ferguson, 2009). Peer models can be very effective because of shared similarities; "the impact of modeling on perceived self-efficacy is strongly influenced by perceived similarity to the models" (Bandura, 1994, p. 73). The use of peer modeling has been shown to be an effective motivational tool as well, i.e. "if he can do it, I can too".

Clinical faculty also serve as models, collaboration is central to situated learning in the community of practice. "Coaches" help empower students through vicarious experiences by modeling good teaching, effective problem-solving, collegiality, and constructive coping mechanisms (Benner et al., 2009; Espeland & Shanta, 2001; Livsey, 2009; Tilley et al., 2007). When faculty model respectful communication, students learn to do the same and they maintain accountability for the information that is exchanged (Espeland & Shanta, 2001; Melincavage, 2011).

A high-stakes learning environment that is facilitated by experts from the community can create the problem solving opportunities and the awareness of the importance of active and critical reasoning (Benner, 2009). The level of student participation expands as learning progresses through vicarious experiences. With budding knowledge and competence emerging the student is prepared to enter into mastery experiences in the situated learning environment of the clinical setting.

Mastery Experiences

The final and most influential source for positive self-efficacy is the mastery experience. Self-efficacy is most malleable in the early stages of mastery and becomes more set as

experiences get more difficult (Lundberg, 2008). With guided practice complex behaviors are created (Bandura, 1986) and students become more confident in their abilities and knowledge.

The literature links the concept of scaffolded teaching to situated learning and it is applied for the purposes of this article as that "guided practice", which Bandura (1986) attributed to mastery of the material (Burke & Mancuso, 2012; Cope et al., 2000; Spouse, 1998; Tilley et al, 2007). Scaffolding enables students to solve problems, perform skills, and/or achieve goals, which would otherwise be beyond their unaided efforts (Cope et al., 2000). As the student successfully accomplishes tasks and gains self-efficacy, the foundation is strengthened. As the foundational competence becomes established, the instructor or mentor can begin to withdraw direct support and transfer more responsibility to the student (Benner et al. 2009; Burke & Mancuso, 2012; Cope et al., 2000; Tilley et al., 2007, Spouse, 1998). In this way, nursing students move towards autonomy. Mastery experiences are most effective when structured in ways that help students build coping skills and instill beliefs of control over events that affect their learning (Bandura, 1994).

Gradually transferring responsibility to students is essential to developing self-efficacy in the situated learning experience. On the other hand, allowing unprepared nursing students to try critical skills before they are ready can lead to frustration or failure and a decreased sense of self-efficacy (Lundberg, 2008). The scaffold approach to mastery experience is, therefore, essential to learning in the situated learning environment of the clinical unit. Learning begins with modeling by clinical experts from the particular unit to create the foundation of scaffolded learning within the community (Wenger, 1998). Central to the process of situated learning and development of self-efficacy is the opportunity for the novice to learn from experts of the community. As the students' learning advances, they become more self-efficacious in their skills and problem

solving, which results in feeling more valued and empowered as part of the team (Bradbury-Jones, et al., 2010). After students learn that they have what it takes to succeed, they can persevere in the face of adversity and quickly recover from setbacks (Bandura, 1994).

Conclusion

Without timely and authentic practice, the meaning of knowledge gained in the classroom remains abstract and vague. A sense of self-efficacy evolves from the situations, activities, and relationships in which the nursing student has engaged while learning in the clinical setting. A large part of how students learn to understand what it means to be and think like a nurse is through the interactions and experiences within authentic nursing environments. While there are a few issues that may negatively impact the development of a student's self-efficacy within the community of practice, an involved and supportive nurse educator, acting as a coach, can help optimize the learning environment and help the student find a "way in" and "practice". The study of literature related to both *self-efficacy* and *situated learning* demonstrated the value of applying both to clinical nursing education. The clinical nurse educator is in a prime position to narrow the practice-theory gap by ensuring that nursing students are developing into competent and self-efficacious nurses. The consequence of a strong sense of self-efficacy may be nursing students and new nurses that have the confidence and resiliency to face the challenges in the high-stakes hospital setting.

References

Andrew, N.; Ferguson, D. (2008). Constructing communities for learning in nursing. *International Journal of Nursing Education Scholarship*. 5(1) *Article* 24

Andrew, N; Tolson, D.; Ferguson, D. (2008). Building on Wenger: Communities of practice in nursing. *Nurse Education Today*. 28: 246-252

Bandura, A. (1997) *Self-Efficacy: The Exercise of Control*. New York: Freeman and Company

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.) *Encyclopedia of human behavior* (Vol. 4, pp. 71-81) New York: Academic Press, 1998.

Bandura, A.(1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*. 28(2): 117-148

Bandura, A. (1986). Social foundations of thought and action: a social cognitive theory. Englewood NJ: Prentice-Hall.

Bandura, A. (1982) Self-Efficacy mechanism in human agency. *American Psychologist*. 37(2): 122-147.

Bandura, A. (1977) Self-efficacy: Toward and unifying theory of behavioral change. *Psychological Review*. 84(2): 191-215

Bahn, D. (2001). Social Learning Theory: its application in the context of nurse education. *Nurse Education Today*. 21: 110-117

Benner, P.; Sutphen, M.; Leonard, V.; Day, L. (2009). *Educating Nurses: A Call for Radical Transformation*. Jossey-Bass.

Bradbury-Jones, C.; Sambrook, S.; Irvine, F. (2011). Empowerment and being valued: A phenomenological study of nursing students' experiences of clinical practice. *Nurse Education Today*. 31: 368-372

Bradbury-Jones, C., Irvine, F., Sambrook. (2010). Empowerment of nursing students in clinical practice: Spheres of influence. *Journal of Advanced Nursing*. 66(9): 2061-2070.

Brown, J. S.; Collins, A.; Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*. 18(1): 32-42

Burke, H.; Mancuso, L. (2012). Social cognitive theory, metacognition, and simulation learning in nursing education. *Journal of Nursing Education*. 51(10): 543-548

Cope, P., Cuthbertson, P.; Stoddart, B. (2000). Situated learning on the practice placement. *Journal of Advanced Nursing*. 31(4):850-856

Cordoza, M; Hood, P. (2012). Comparative study of Baccalaureate nursing student self-efficacy before and after simulation. *Computers, Informatics, Nursing*. 30(2): 142-147

Del Prato, D.; Bankert, E.; Grust, P.; Joseph, J. (2011). Transforming nursing education: a review of stressors and strategies that support professional socialization. *Advances in Medical Education and Practice*. 2: 109-116

Espeland, K. & Shanta, L. (2001). Empowering versus enabling in academia. *Journal of Nursing Education*. 40(8): 342-346

Field, D. (2004). Moving from novice to expert – the value of learning in clinical practice: A literature review. *Nurse Education Today*. 24: 560-565

Gaberson, K.; Oermann, M. (2010). Clinical teaching strategies in nursing, 3rd Edition (Kindle Locations 1441-1443). Springer Publishing. Kindle Edition.

Goff, Anne-Marie (2011). Stressors, academic performance, and learned resourcefulness in Baccalaureate nursing students. *International Journal of Nursing Education Scholarship*. 8(1).

Haffer, A.; Raingruber, B.J. (1998). Discovering confidence in clinical reasoning and critical development: Baccalaureate nursing students. *Journal of Nursing Education*. 37(20: 61-70.

Kaddoura, M. (2010). New graduates nurses' perception of the effects of clinical simulation on their critical thinking, learning and confidence. *J Contin Educ Nurs*. 41(11): 506-516

Konradi, D.B. (2012). Learning to think like a nurse: A critical questions strategy. *Journal of Nursing Education*. 51(6): 359-360

Larew, C.; Lessan, S.; Spunt, D.; Foster, D.; Covington, B. (2006). Application of Benner's theory in an interactive patient care simulation. *Nursing Education Perspectives*. 27(1): 16-21

Lave, Jean; Wenger, Etienne (1991). *Situated Learning, Legitimate Peripheral Participation*. Cambridge,

UK: University of Cambridge Press

Levett-Jones, T.; Lathlean, J. (2008). Belongingness: A prerequisite for nursing students' critical learning. *Nurse Education in Practice*. 8: 103-111

Levett-Jones, T.; Lathlean, J.; Higgins, I.; & McMillan, M. (2009). Staff – student relationships and their impact on nursing students' belongingness and learning. *Journal of Advanced Nursing, 65(2),* 316-324. doi:10.1111/j.1365-2648.2008.04865.x

Lisko, S.A.; O'Dell, V. (2010). Integration of theory and practice: Experiential Learning Theory and nursing education. *Nursing Education Perspectives*. 31(2): 106-108

Livsey, K.R. (2009) Structural empowerment and professional nursing practice behaviors of Baccalaureate nursing students in clinical learning environments. *International Journal of Nursing Education Scholarship*. 6(1): Article 26

Lord, M. (2002). Making a difference: Implications for nurse education. *NursingTimes.net*. 98(20): 38. Retrieved from: http://www.nursingtimes.net/making-a-difference-the-implications-for-nurse-education/206457.article#

Lundberg, K. (2008). Promoting self-confidence in clinical nursing students. *Nurse Educator*. 33(2): 86-89

Margolis, H.; McCabe, P. (2004). Self-Efficacy: a key to improving the motivation of struggling learners. *The Clearing House*. 77(6): 241-249

Melincavage, S (2011). Student nurses' experiences of anxiety in the clinical setting. *Nurse Education Today*. 31: 785-789

Moscaritolo, Linda (2009). Interventional strategies to decrease nursing student anxiety in the clinical learning environment. *Journal of Nursing Education*. 48(1): 17- 23.

O'Connor, S. (2006). Developing professional HABITUS: a Bernsteinian analysis of the modern nurse apprenticeship. *Nurse Education Today*. 27: 748-754

Ousey, K. (2009) Socialization of student nurses – the role of the mentor. *Learning in Health and Social Care*. 8(3): 175-184

Pike, T.; O'Donnell, V. (2010). The impact of clinical simulation on learner self-efficacy in pre-registration nursing education. *Nurse Education Today*. 30: 405-410

Robb, M. (2012). Self-Efficacy with application to nursing education: A concept analysis. *Nursing Forum*. 47(3). 165-172.

Roberts, D. (2010). Vicarious learning: A review of the literature. *Nurse Education in Practice*. 10: 13-16

Sinclair, B.; Ferguson, K. (2009). Integrating simulated teaching/learning strategies in undergraduate nursing education. *International Journal of Nursing Education Scholarship*. 6(1): *Article* 7

Spouse, J. (2001). Supervisory relationship – a sociocultural perspective. *Journal of Advanced Nursing*. 33(4): 512-522

Spouse, J. (1998). Learning to nurse through legitimate peripheral participation. *Nurse Education Today*. 18: 345-351

Stein, Eric (1998). *Situated learning in adult education. ERIC Digest* No. 195. Retrieved from: http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED418250

Taylor, H; Reyes, H. (2012). Self-Efficacy and resilience in Baccalaureate nursing students. *International Journal of Nursing Education Scholarship*. 9(1):

Thomas, C.; Mackey, E. (2012). Influence of a clinical simulation elective on Baccalaureate nursing student clinical confidence. *Journal of Nursing Education*. 51(4): 236-239

Tilley, D.S.; Allen, P.; Collins, C.; Bridges, R.A.; Francis, P.; Green, A.(2007) Promoting clinical competence: Using scaffolded instruction for practice-based learning. *Journal of Professional Nursing*. 23(5); 285-289

Wagner, D.; Bear, M.; Sander, J. (2009). Turning simulation into reality: Increasing student competence and confidence. *Journal of Nursing Education*. 48(8): 465-467

Wenger, E. (1998). *Communities of practice: learning, meaning, and identity*. New York, NY: Cambridge University Press

Wenger, E.; McDermott, R.; Snyder, W. M. (2002). *A Guide to managing knowledge: Cultivating communities of practice*. Boston, MA: Harvard Business School Press.

White, C. (2010). A socio-cultural approach to learning in the practice setting. *Nurse Education Today*. 30: 794-797