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# Nursing Students' Self-Efficacy and Attitude: Examining the Influence ofthe Omaha System In Nurse Managed Centers

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## SCHOOL OF NURSING

## MASTER'S PROGRAM PROJECT OPTION (PLAN B)
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The project and manuscript have been successfully completed and meet the standards of the School of Nursing at San Jose State University. The project demonstrates the application of professional knowledge, clinical expertise, and scholarly thinking. An abstract of the project and two copies of the manuscript are attached.

_Daryl Canham_      _12/17/04_

**ADVISOR'S SIGNATURE**             **DATE**

_Chia Ling Mao_      _12/10/04_

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Nursing Students' Self-Efficacy and Attitude:

Examining the Influence of the Omaha System

In Nurse Managed Centers

December 16, 2004
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Abstract

Self-efficacy, or confidence, as an outcome behavior has been identified as influencing nursing job satisfaction and retention. Clinical learning environments and teaching strategies that build and support perceived self-efficacy are critical aspects of preparing new nurses for their entry and continuing role as professional nurses in today's information-intensive data-management healthcare environment. The purpose of this pre-test post-test study is to measure, using the C-scale (Grundy, 1992), nursing students' self-efficacy to perform patient assessment in Nurse Managed Centers (NMC) after one semester of using the Omaha System documentation framework. Nursing students' attitudes of preparation for using Standardized Nursing Languages (SNL) in the future was also examined. Bandura's (1977, 19986) theoretical model of self-efficacy provided the conceptual framework. Students' overall self-efficacy scores increased significantly over the 12 week study. Use of the Omaha System 'prepared a little' to 'very prepared' 90% of student nurses for future use of SNL. Continued use of the Omaha System documentation framework in Nurse Managed Center clinicals as a tool for understanding SNL is recommended.

## Introduction

As demographic forces widen the gap between the number of people needing care and the number of nursing staff available to provide care, recruitment and retention of new and experienced nurses has gained national focus (United States General Accounting Office [GAO], 2001; Roberts, Jones & Lynn, 2004). Self-efficacy, or confidence, as an outcome behavior has been identified as influencing nursing job satisfaction and retention (Murray, 1999; Smith & Crawford, 2003; Dillon, Landing, Crews, & Blankenship, 2003; Roberts, et al., 2004; National Council of State Boards of Nursing {NCSBN}, 2004). Because "job satisfaction is a primary reason cited for nurse retention problems...Job satisfaction may play a crucial role in determining the extent of future nursing shortages" (GAO, p.7-8). The relationship between job satisfaction and turnover is highly complex and there is a need for "a more comprehensive understanding of nurses job satisfaction to develop strategies aimed at affecting new RN satisfaction and ultimately turnover and retention" (Roberts, et al., 2004).

The continuing shift of high-acuity patients and healthcare services from acute hospital settings to community settings, in response to managed-care and reimbursement issues (Rosen, 2000; Nehls, Tipple, & Vandermause, 2001; Barger, 2004), with the rising use of information technology (IT) in care settings have increased employer demand for a higher skill mix of registered nurses (Elfrink, 1999; GAO, 2001). New nurses have expressed their lack of preparation for various aspects of practice (NCSBN, 2004; Cohen, Saylor, Holzemer, & Gorenberg, 2000). Identifying behaviors and competencies to increase nursing students' confidence is a critical aspect of preparing new nurses for their entry and continuing role as professional nurses (King, Smith, & Glenn, 2003). Selected clinical learning environments and

teaching strategies that build and support perceived self-efficacy are critical elements for preparing nursing students to enter and remain in the workforce (Merrill, Hiebert, Moran, & Weatherby, 1998; McNeil, Elfrink, & Bickford, 2003; Sloan & Delahoussaye, 2003). Nurse Managed Centers (NMCs) were developed by nurse educators as academic practice settings incorporating community-based care into baccalaureate nursing curriculum (Barger, 2004).

Nurse Managed Centers provide a collaborative community-based clinical experience by assisting students to synthesize the nursing role and develop clinical competencies in a more independent setting (Connolly, 1995). As a learning environment this experience prepares new nurses for their first job. "The first nursing position plays an important role in shaping perceptions of nursing's role in healthcare delivery, professional growth opportunities and in turn perceptions of job satisfaction" (Roberts, et al., 2004). Recently, 'service learning' clinical experiences emphasizing community partnerships, social justice, and health policy is driving nursing education philosophy and clinical design (Bailey, Rinaldi, & Harrington, 2002; Redman & Clark, 2004). As a strategy for preparing civically engaged professionals, it "empowers students by giving them autonomy in developing (programs) to provide health services to vulnerable and underserved populations" (Shimmons-Torres, Drew-Cates, & Johnson, 2002).

Patient care documentation has changed in response to payor demands for defined outcomes of care and healthcare demands for interdisciplinary communication (Martin & Scheet, 1992; Elfrink, 1999). Standardized Nursing Languages (SNL) are replacing problem-oriented narrative notes (Cohen et al., 2000; Elfrink, 1999; Sloan & Delahoussaye, 2003). A report from the Institute of Medicine states, "All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics" (Institute of Medicine, 2003, p. 3). Although

application of computer use in the "clinical and educational arenas needs to be emphasized for both management of patient data and nursing knowledge" (Sloan & Delahoussaye, 2003), integration of information technology skills and knowledge into nursing education has been slow with no consistent curricula existing in nursing education programs (McNeil, et al., 2003). As healthcare delivery systems become more information-intensive and data management becomes more complex, the need to integrate information technology into clinical practice increases (Elfrink, 1999; Elfrink, Davis, Fitzwater, Castleman, Burley, Gorney-Moreno, et al., 2003; Sloan & Delahoussaye, 2003).

There are currently 12 standardized languages recognized by the American Nurses Association (ANA) yet "less than one third of the nursing programs address the use of standardized languages or terminologies in their nursing curriculum" (McNeil, et al., 2003). These are skills today's nursing graduates need to function successfully in many of the entry-level community and acute care positions (McCannon & O'Neal, 2003; Sloan & Delahoussaye, 2003). A strategy to increase nursing student confidence and self-efficacy is to emphasize the practice importance of Standardized Nursing Languages.

The Omaha System provides a framework for students to identify and categorize problems, interventions, and outcomes (Martin & Scheet, 1992). Outcomes in client knowledge, behavior, and status are documented on a 5 point Likert type scale. The structure provides consistency in documentation and facilitates interdisciplinary team care which can result in greater confidence and perceived self efficacy (Elfrink, et al., 2000). Examining the influence of the Omaha documentation System on nursing students' efficacy in performing patient assessments in NMCs, and on attitudes towards future use of SNL, is worthy of study.

## Purpose of the Study

The purpose of the study was to examine the influence of a Standardized Nursing Language (SNL), a structured, interdisciplinary, documentation framework, on the self-efficacy of nursing students in performing physical assessments in academic Nurse Managed Centers, and to explore nursing students' attitudes toward preparation for future use of SNL as an entry nurse. The SNL chosen was the Omaha System.

## Research Questions

Does use of the Omaha System, a Standardized Nursing Language (SNL), as a documentation framework influence nursing student self-efficacy, as measured by the C-scale (Grundy, 1992) in the performance of a physical assessment, in Nurse Managed Centers? After using the Omaha System, how prepared do nursing students feel regarding future use of SNL?

## Theoretical Framework

Bandura's Self-Efficacy Theory (1986) was used as the theoretical framework for this study. Self-efficacy has been shown to be an accurate predictor of future behavior. Bandura's (1986) theory of self-efficacy is based on the concept that an individual's belief, or perceived confidence, for performing or carrying out a specific task or action influences whether a specific action is taken. This concept stems from Social Cognitive Theory which proposes that three factors, (a) environmental, (b) behavioral, and (c) cognitive, constantly interact with each other and comprise an individual's psychological capacity. The cognitive factor of psychological capacity is a direct function of efficacy expectations and outcome expectations.

Efficacy expectation is composed of the belief about one's ability to successfully engage in a behavior or action thereby effecting behavior change and maintenance. Efficacy judgment of expectations is derived from and influenced by four sources of information: a) performance

accomplishments, b) vicarious experience, c) verbal persuasion, and d) emotional arousal (psychological). Expectation judgments vary along the dimensions of magnitude, strength, and generality. Outcome expectations involve an individual's appraisal that a specific action will bring about a specific outcome. Although outcome expectations are important, the perceived efficacy expectations play a more crucial role in motivation and action (Holloway, 2002).

In this study, Bandura's (1986, 1997) theory was used to conceptualize self-efficacy as measured by differences in response scores before and after utilizing the Omaha System, a SNL, as a framework for patient care documentation. This theory does not imply that the use of a skill or confidence in performing that skill is equivalent to competence. However, the theory does imply that practice and supportive feedback over time is a strong information source of perceived self-efficacy judgment affecting efficacy expectation. "The level of performance experienced during training is likely to influence judgments of capacity to perform similar tasks in the future (Holloday & Quinones, 2003).

<div align="center">Literature Review</div>

*Self-Efficacy Theory*

The theory of self-efficacy has been examined in nursing education related to academic and learning performance (Andrew, 1998; Ofori, 2002), course effectiveness on confidence of assessment skills (O Farrell, Ford-Gilboe, & Wong, 2000), validation of Nurse Managed Centers as academic clinical sites (Canham, 1997) and how self-efficacy beliefs influence behaviors in various teaching-learning experiences of nursing faculty and students (Ford-Gilboe, 1997; Freiburger, 2002; Goldenberg, Iwasiw, & MacMaster, 1997; Laschinger, McWilliam, & Weston,1999; Madorin & Iwasiw,1999). Collins (1997) used regression analysis when investigating the relationship between academic self-efficacy and coping strategies, and between

clinical nursing self-efficacy and coping strategies with six groups of nursing students. There was a significant relationship between academic self-efficacy and problem-focused coping strategies and no significant relationship between clinical nursing self-efficacy and problem-focused coping. There was no change in academic self-efficacy, but a linear increase in clinical nursing self-efficacy over time: clinical nursing self-efficacy surpassed academic self-efficacy when students became seniors in the program. Collins study supported the importance of self-efficacy in the development of professional nurses.

Self-efficacy in community health clinicals was examined by Rosen (2000), using a comparative-descriptive survey design, to determine if final semester Associate Degree Nursing (ADN) and Bachelors of Science Nursing (BSN) students in community health clinicals perceived themselves as self-efficacious to work as community health nurses. Questionnaires were mailed to faculty liaisons of 34 randomly selected National League for Nursing (NLN) accredited schools in the United States. Both ADN and BSN students perceived themselves as self-efficacious to work with individuals and families, however, significant differences were found between the ADN and BSN students on perceived self-efficacy to work with communities as clients. It was found that performance accomplishments and vicarious experience contributed positively to a BSN students' perceived self-efficacy to work as a community health nurse.

Self-Efficacy expectations relating to Information Technology (IT) were examined (Dillon et al. 2003; McNeil et al. 2003). Babenko-Mould, Andrusyszyn, and Goldenberg (2004) used the Self-Efficacy for Professional Nursing Competencies Instrument to examine the effects of computer-based clinical conferencing on fourth year nursing students' self-efficacy in a pretest-posttest quasi-experimental control group design with a convenience sample of 42 students. They found a variety of sources of self-efficacy information emanated from online

discussions: performance accomplishment, verbal persuasion, and vicarious experience. Student participation in computer conferencing fostered a feeling of community through connection, support, learning, and sharing providing support for Bandura's (1997,1986) theory that sources of self-efficacy information can influence cognitive appraisal of confidence for carrying out specific actions.

*The Omaha System*

The Omaha System offers a holistic approach to healthcare practice (Martin, 1999; Cohen et al., 2000). Federally funded research conducted at diverse test sites has extended successful utilization of the Omaha System into almost every facet of nursing services (Martin, 1999). The framework fosters problem-solving and decision making, supports the nursing process, facilitates interdisciplinary communication, and includes a mechanism for measuring client outcomes (Martin & Scheet, 1992). Documented measures of client outcomes linked to nursing care interventions "provide the long sought evidence-based nursing practice" (Cohen, et al., 2000; Barrera, Manchanga, Connolly, & Yoder, 2003) that enhance professional nursing accountability.

Studies documenting nursing care outcomes were examined (Marek, 1997; Imdieke, 2001; Barrera et al. 2003). A conceptual model of an organizational framework to identify outcomes that community health nurses acknowledge as directly influenced by their interventions was described by Cohen, Saylor, Holzemer, and Gorenberg, 2000. The "Outcomes Model for Community-Based Settings" (OMCBS) incorporated the Omaha System, a framework for implementing and evaluating client care, to standardize nursing care and client outcomes. Documenting the link between nursing care interventions and the effectiveness of nursing care enhances confidence in outcomes, especially when maintenance of function is the goal.

The Omaha System in nursing education curriculum restructuring (Merrill, et al., 1998; McNeil, et al., 2003) and as a teaching strategy to include Information Technology (IT) into student clinical education experience (Elfrink, et al., 2002) was reviewed. Elfrink (1999) described use of the Nightingale Tracker Program, based on the Omaha System, for distance communication in a mobile clinical community environment. The framework and common set of terms kept students focused in assessment, planning, and delivery of care and allowed students to "succinctly and effectively communicate their findings with their faculty". Student orientation to data-driven interactions across time was emphasized as a foundation of learning to coordinate and communicate with interdisciplinary health care teams. Study findings indicated effective integration of IT and standardized nursing vocabularies can help prepare nurses for future challenges in automated healthcare data management.

*Self-efficacy and Job satisfaction*

The first nursing position influences new RN graduates' perceptions of the nursing role in healthcare delivery, professional growth opportunities, job satisfaction, and satisfaction with nursing as a career choice (Roberts, et al., 2004). Preparing nursing students for practice in the 21st century must include information technology (Elfrink, 1999). In a recent national survey it was noted "the most critical information technology skill involved knowing nursing specific software, such as bedside charting" (McCannon & O'Neal, 2003).

The competencies needed by new BSNs beginning a career was addressed by King, Smith, and Glenn (2003). Questionnaires of 24 identified entry-level competencies, requesting 'perceived' versus 'observed' status, were mailed to nurse administrators, experienced and recent BSN graduates, and to faculty in BSN programs in Tennessee with a return rate of 56.7%. Data on the perceptions of nurses and faculty regarding these competencies were collected. Nurses

rated several competencies lower than BSN faculty: critical thinking, using computer information systems, developing and implementing a care plan, and evaluating patient outcomes. Faculty rated four competencies higher than nursing administrators: cultural diversity and work within interdisciplinary teams. Nurse administrators rated four competencies higher than faculty: patient satisfaction, cost-effective care, and use of computer information systems. Interestingly, computer information systems 'importance' was low while 'observation' was high. Evaluation of BSN curricula's relevancy to clinical practice was stressed.

In search of the best way to prepare nursing students for clinical practice in the 21st century, Merrill et al (1998) described a curricula revision with emphasis on an interdisciplinary team approach using an SNL, the Omaha System, which focused on community based, rather than hospital based, care. The structure offered a framework for organizing and teaching nursing care with a holistic perspective, including the client's interaction with the environment, documenting patient outcomes. Merrill et al. found the majority of nurse educators are at the novice level of information technology and stressed the need to close the ever widening gap between education and practice by fostering innovations and new models of education that promote integration of information technology (IT).

Methodology

*Instruments*

The Confidence Scale (C-scale) presented by Grundy (1992) provided a valid and reliable data collection instrument. The accuracy of measures of the dependent variable was reflected in consistency, test-retest stability, as well as construct and concurrent validity of the C-Scale in the measurement of confidence associated with the performance of physical assessment. It is a five item Likert-type scale with five possible responses for each item. Subjects self-assess their level

of confidence to perform a client physical assessment with the maximum total of 25 (high confidence) to the minimum score of five (low confidence).

The C-scale, developed by O'Neill (1985), as stated in Grundy (1992), measured levels of confidence to perform dressing changes and is phrased for use in the measurement of any psychomotor skill. Confidence is viewed as a situationally specific trait rather than a general trait (Bandura, 1986) and Grundy continued testing this instrument to determine student confidence in performing physical assessment skills. Scores were correlated with a 100-mm confidence visual analog scale (C-VAS) and a confidence verbal descriptor scale (C-VDS) to support concurrent validity.

The C-VAS was a 100-mm long horizontal line with bipolar end anchors that read "not confident at all," and "as confident as I could be." The correlation coefficient for the C-scale with the C-VAS ranged form .58-.80 after repeated testing. The C-VDS asked the student to circle the number that gave the best descriptor of how confident they felt performing an assessment. The scale ranged from 1, "I do not feel confident at all," to 5, "I feel extremely confident." C-scale scores correlated with C-VDS from .73-.76.

Construct validity for the C-scales was established by nurses with a minimum of 1 year experience in a medical-surgical unit. Twenty-two nurses volunteered for recruitment to complete the instruments. The correlation coefficient for the staff nurse C-scale score (n=22) with the C-VAS and the C-VDS was .64 and .77 respectively.

Data reliability was evaluated for each of four C-scale instrument administrations. Cronbach's alpha for the student sample ranged from .84-.93, and was .85 for the staff nurses. Cronbach's alpha was not improved by deleting any of the five test items demonstrating internal

consistency. Test-retest correlation coefficients (n=31) using Spearman's rank-order for the C-scale was .89 for the 1 hour retest and was .84 for a second retest nine days later.

Each of the five items specifies a particular sociocognitive aspect involved with patient assessment. This level of specificity is congruent with Bandura's (1997) premise that the "item content of self-efficacy scales must represent beliefs about personal abilities to produce specified levels of performance and not include other characteristics" (p. 45). Confidence is viewed as a situational specific trait rather than a general trait. The C-scale "was constructed to focus on one specific skill at a time" (Grundy, 1992). In this study, the C-scale quantified measurements of self-assessed confidence to perform a patient physical assessment before and after using the Omaha System for patient documentation.

*Sample and Context*

Subjects were fourth year baccalaureate nursing students in a large, urban, northern California university. The first semester senior pre-licensure students were required to enroll in two clinicals, one of which was a psychiatric/mental health clinical located in community-based Nurse Managed Centers. Subjects had self-registered into four, of a possible nine, clinicals. It is to be noted that a short staff strike and physical relocation of two clinical affected study results as confounding factors with unknown impact.

The convenience sample was composed of 40 students (39 females, 1 male) enrolled in four academic nurse-managed centers using the Omaha System. Study volunteers (97.7% participation rate) represented about 50% of the nursing student target population Protection of human rights was addressed and a general standardized consent form was signed by each volunteer. Approval for the study was given by the Human Subjects Committee institutional

review board and the school of Nursing. Privacy was protected by using birthdates and locking paperwork in a file drawer accessible only to the researcher.

*Data collection protocol, the C-scale, Attitude Survey*

A pre/ post-test pre-experimental design was employed. Differences in nursing students' confidence, as measured by Grundy's C-scale (1992), to perform physical assessment before and after utilizing the Omaha System for documentation were examined. An Attitude Survey, created by the researcher, measured perceived attitudes of current use of the Omaha System and future preparation to use Standardized Nursing Languages. Validity and reliability were not tested prior to use in this study.

The study was announced to all seventh semester clinical nursing students. Clinical Professors using the Omaha System were approached and agreed to allow access to the respective clinical groups. Data were gathered by the researcher at four academic Nurse Managed Centers. A demographic questionnaire (Appendix A) and pre-test instrument measuring self-efficacy to perform a physical assessment, as measured by Grundy's C-scale, (Appendix B) were distributed at the start of the first clinical day at each of the clinical sites. The post-test, identical to the pre-test, and Attitude Survey (Appendix C) were distributed during the 12th academic week to the same subjects in the same clinicals.

*Statistical Analysis*

Data analyses were computed with SPSS software by the researcher and validated by a professional statistician also using SPSS software. The C-scale instrument used to quantify the dependent variable was examined for reliability with Cronbach's alpha on the pre and post-test responses. Group analysis was done on the 40 nursing students. Descriptive information by subgroups, regarding subjects and relevant variables, was evaluated. After assumptions were

satisfied, statistical significance of the main question was analyzed by paired samples t-test. Practical significance was evaluated with Eta squared.

Attitude Survey response reliability was analyzed with Cronbach's Alpha. Narrative responses were evaluated with inter-rater reliability by two Nursing Professors and tabulated as positive, neutral, or negative by number of adjectives and individual subjective perspective. Three bipolar themes were identified.

*Results*

Reliability analysis of pre and post-test data using Cronbach's alpha was .94 and .84 respectively indicating instrument stability (reliability) over time. Assumption for random sampling was supported as subjects had self-selected into clinicals prior to the study and represented approximately 50% of the target population. Scores were normally distributed. Variance of homogeneity was 1.73. Effect size was .95. The null hypothesis that self-efficacy pre and post-test mean scores would be equal was tested with a paired samples dependent t-test. The pre-test mean was 3.22 (sd = .82), and the post-test mean was 3.84 (sd = .47. A significant increase from pre-test to post-test was found *(t(39) = -5.20, p=.000). Confidence interval estimates were constructed at the 95% confidence level. The pre-test mean interval estimate was 2.96-3.48 and the post –test was 3.64-3.99. Confidence intervals did not overlap, so it is quite likely there is a true difference in mean scores. The null hypothesis was rejected and the alternative hypothesis that there is a difference in pre and post test mean scores was accepted.

Reliability analysis of the Attitude Survey had an Alpha of .68 indicating a moderately strong factor labeled 'Attitude to the Omaha System.' 85% of the students felt the Omaha System framework "assists a little' to 'assists greatly' in patient documentation and 97.5% stated 'assists a little' to 'assists greatly' regarding communication between care providers. Use of the

Omaha System during this clinical 'prepared a little' to 'very prepared' 90% of the students for future use of Standardized Nursing Languages.

Narrative responses by adjective were 26 positive, 34 neutral, and 37 negative. Responses by individual subjective perspective were 15 positive, 13 neutral, and 10 negative with two subjects not responding. Three bipolar themes focused on the structure and ease of using the Omaha System: thorough vs. restrictive, efficient vs. time consuming, and helpful vs. confusing.

## Discussion

This study contributes to knowledge of Bandura's theory as it relates to using the Omaha System for documentation of client assessments in Nurse Managed Centers. Regardless of prior exposure to the Omaha System, these senior baccalaureate nursing students demonstrated increased levels of confidence in performance of client physical assessments as indicated by the significant increase in measurement pre to post-test. It was noted Primary language did not significantly affect confidence. Although actual performance of behaviors was not measured in this study, according to Bandura's study (1986), self-efficacy would be expected to be related to performance. This study responds to the need for evaluation of nursing student clinical experiences, adding knowledge that substantiates Nurse Managed Centers as appropriate clinical sites. Teaching strategies supporting SNL performance accomplishments and emotional arousal may increase confidence as an outcome behavior. Findings indicate that Nurse Managed Center clinical practicum experiences using the Omaha System for nursing documentation augment students' beliefs in their abilities as "soon-to-be" nurses.

The perceived value of the Omaha System, as reflected in responses to the Attitude Survey, for client assessment documentation and as preparation for future use of SNL was

consistent with 85% to 97.5% of students responding positively. Bipolar themes exhibited the range of student experiences. Statements such and" "gives me more info about the client", "more convenient to use - less writing while addressing all my issues", "it allowed me to develop a care plan step by step" and " very quick and easy, not as detailed as narrative" supported use of SNL as a teaching tool. Negative attitudes stating "lacks critical thinking", "makes people fit a diagnosis", "ambiguous with rating scales", and "it is more confusing if using without prior instruction" strongly indicates the value of instruction prior to experience. Results suggest that students can develop self-efficacy related to using the Omaha System in a relatively short period of time given prior instruction and appropriate learning opportunities.

<div align="center">Limitations</div>

Lack of randomization is somewhat off-set by the large sample proportion representative of the population; nevertheless, findings are restricted to the context. The demand, maturation, and Hawthorne effects influenced bias. The small sample size and the pre/post-test design restricted power thereby limiting both internal and external validity. Sample characteristics, such as almost half of the sample speaking a primary language other than English and the small but significant (12.5%) proportion residing in the USA less than 10 years, are more common in large urban settings affecting generalizability of findings. "Life" experiences, such as the staff strike and relocation of clinical sites, are potential occurrences to be recognized. Lack of a control group limits findings.

The need to evaluate nursing student computer and technology skill levels is documented in the literature (Elfrink, 1999; Elfrink, et al., 2000; Roberts, et al., 2004). Attitude toward information technology has been documented as affecting confidence and readiness to use

clinical information systems (Dillon, et al., 2003). Prior computer literacy and/or attitude were

unknown in this nursing student population.

Recommendations

True randomization, a larger sample size, and a control group are recommended to

strengthen findings. What is apparent from this project is the need for a practice component in

the development of skills. Confidence will increase when opportunity for practice is provided.

These finding are consistent with Bandura's theory that performance is the strongest source of

self-efficacy. Evaluation of attitude and prior computer skills could clarify student efficacy

expectations and gaps in confidence needing attention. Incorporation of IT skills, specifically

nursing specific software, such as bedside charting is supported in the literature (McCannon &

O'Neal, 2003) and continued use of the Omaha System is recommended. The Omaha System as

framework tool for teaching the taxonomies of Standardized Nursing Languages is supported

(Elfrink, et al., 2002) and recommended in order to prepare nursing students for information

technology use at entry level nursing positions. Computer and technology literacy evaluation is

recommended early in nursing programs to better assess student needs for instruction. Attitude

evaluation toward IT is also recommended to maximize resources.

Conclusion

The C-scale (Grundy, 1992) is a valid measure of self-efficacy to perform client physical

assessments. Self-efficacy as an outcome competence for nursing students was enhanced with

the use of the Omaha System in Nurse Managed Centers. Confidence and positive attitudes

toward preparation to use SNL will assist new graduate nurses when moving into a decidedly

technical world at the time of entry into practice. Current and future use is supported as a critical

component of preparing nursing students for entry and retention in the healthcare environment.

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Appendix A

Demographic Questionnaire

1. Birth date (month, day, year: i.e. 1/22/74) _____

2. Have you used the Omaha System before?                Yes____ No_____

3. Do you think the Omaha System measures what is important?    Yes____ No_____

4. Is English your primary/native language?              Yes____ No_____

5. Have you lived in the United States more than 10 years?    Yes____ No_____

6. Predominant ethnicity: (Please circle your response)

    A. Asian   B. Black   C. Hispanic   D. White   E. Native American   F. Other

7. Type of previous education before beginning nursing courses: (Please circle one number)

    1. High School

    2. Community College

    3. University/College

    4. Mixed University/College and Community College

8. Are you currently employed as: (Please circle one number)

    1. Do not work       2.RN        4. Psych Tech        6. Nursing Assistant

                 3. LVN        5. Paramedic        7. Non-nursing job

9. Age: 21-25_____   26-30_____   31-40_____   40 or more years_____

10. Gender: Female_____ Male_____

Appendix B

The Confidence Scale

Self-Efficacy Instrument

Directions: Circle the number that best describes how you think or feel regarding your currant ability to perform a physical assessment on a client in the psychiatric/mental health community health setting. Make sure to encircle only one number.

|  | Not at all Certain | | Moderately Certain | | Absolutely Certain |
|---|---|---|---|---|---|
| 1. I am certain that my performance is correct | 1 | 2 | 3 | 4 | 5 |
| 2. I feel that I perform the task with no hesitation | 1 | 2 | 3 | 4 | 5 |
| 3. My performance would convince an observer that I am competent | 1 | 2 | 3 | 4 | 5 |
| 4. I feel sure of myself as I perform the task | 1 | 2 | 3 | 4 | 5 |
| 5. I feel satisfied with my performance | 1 | 2 | 3 | 4 | 5 |

Adapted from Grundy, S. (1992)

Appendix C

Attitude Survey

The Omaha System is a Standardized Nursing Language. Please share your thoughts and feelings about your experience using the Omaha System. Circle the number that expresses you most dominant thought or feeling.

Q1. What previous experience with Standard Nursing Languages have you had before     this current clinical?

1. none     2. theory only     3. theory plus case study/video     4. clinical     5. research

Q2. Regarding you experience with the Omaha System Standardized Nursing Language during this current clinical, how do you feel about the framework for documentation?  It was:

1. confusing     2. not helpful     3. a little helpful     4 somewhat helpful     5. very helpful

Q3. To what degree does the Omaha System Standardized Nursing Language assist communication between interdisciplinary health care providers?

1. Not sure     2. does not assist     3. assists a little     4. assists somewhat     5. assists greatly

Q4. How has using the Omaha System during this clinical prepared you for using Standardized Nursing Languages in the future?

1. not sure     2. did not prepare     3. prepared a little     4. somewhat prepared     5. very prepared

Q5. Write four adjectives expressing your thought or feelings about the Omaha System

_____     _____

_____     _____

Any comments about the Omaha System compared to narrative documentation?

_____

Table 1: Attitude Survey Response Themes by Number of Adjectives

*Bipolar Attitude Themes toward the Omaha System*

Summary of Attitude Themes and Response Number of Adjectives

| Positive Theme | Response number | Negative Theme | Response Number |
|---|---|---|---|
| Efficient | 16 | Time consuming | 19 |
| Thorough | 23 | Restrictive | 7 |
| Helpful | 21 | Confusing | 11 |

Table 2: Attitude Survey Overall Perspective

*Overall Perspective of the Omaha System by Number of Students*

| Overall perspective | Number of students |
| --- | --- |
| Positive | 15 |
| Neutral | 13 |
| Negative | 10 |

Note. Two subjects did not respond to the request for comments about the Omaha System as compared to narrative documentation.