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Competencies for rural nursing practice

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COMPETENCIES FOR RURAL NURSING PRACTICE

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ABSTRACT

This study sought to identify nursing competencies most associated with good nursing practice in Critical Access Hospitals. The Delphi panel for this study consisted of seven rural health nurse experts who were currently employed as a Director of Nursing in a Critical Access Hospital.

A survey instrument was developed for each of the three Delphi rounds. The Round One instrument consisted of two open-ended focus questions. The four classification headings used for the identified competencies included Clinical/Technical Skills, Critical Thinking Skills, Communication/Interpersonal Skills, and Management/Organizational Skills. The Round Two survey instrument was a compilation of the competencies received from the Round One instrument. The panelists were asked to rate the competency utilizing anchored scale. The Round Three survey instrument was dissimilar for each participant. The panel member was asked to rate the competency within one scale interval of the median or place their unique Round Two rating in this column and indicate why they believed their rating was more realistic.

In the first round, a total of 149 competencies were submitted by the panel. These competencies were consolidated into 101 unique competencies. At the completion of the Round Two survey, one item was added and two competencies were combined into one competency. The third and final round resulted in a group consensus ranging from 71% to 100% on a total of 102 competencies.

This research identified competencies unique to the Critical Access Hospital rural environment utilizing the Delphi approach. Nurses practicing in the rural setting are viewed more as generalists as opposed to specialists. Specific nursing areas including

hospital nursing administration and nursing education can utilize the results of this study in planning for and promoting competent nursing practice in the rural environment. The researcher recommended additional studies that would further exemplify the uniqueness of rural nursing.

CHAPTER 1

INTRODUCTION

According to the United States Census Bureau 2004 estimates, approximately 60 million people or 21% of the United States population live in rural areas (United States Census Bureau, 2004). Rural areas are defined as areas not classified as urban or with populations of less than 2,500 people. Specific characteristics of the rural area include a higher number of elderly and children, more unemployment, and a higher percentage of health uninsured and underinsured individuals (National Rural Health Association, 2005). Winstead-Fry, Tiffany, and Shippee-Rice (1992) stated that rural areas have a higher concentration of children under 18, as well as a higher rate of infant mortality. According to Rogers (2001), the rural population is aging due to a higher number of young adults migrating to urban areas and a larger number of elderly migrating from metropolitan areas to rural communities. In addition, the rural elderly are more likely to be in poorer health and live in poverty as compared to their urban counterparts. Agricultural work which involves working with complex machinery is considered one of the most dangerous rural professions. Respiratory disease is also a major health issue due to the repeated exposure to pesticides and chemicals used in farming.

Health care delivery systems in rural areas face many challenges in meeting the needs of the community. The United States Department of Health and Human Services (1997) defined hospitals located in rural areas as small, with 25 to 100 beds. At times the decreased number of hospital beds in rural hospitals can pose a dilemma, especially during the annual flu season or in the event of a local disaster. As compared to urban hospitals, rural health facilities are often unable to provide specialized health services to

the population. Transportation can be an issue for rural individuals, particularly the impoverished, in need of specialized health services provided only in the urban area.

Rural nursing is considered a demanding as well as rewarding area of nursing practice. Historically, research and publications pertaining to nursing practice focused solely on the urban setting (Bushy, 2000). It has only been within the past few years, primarily since the middle 1990's, that articles pertaining to rural nursing have been published. Nurses employed in urban health care settings normally specialize and care for clients from one particular population, such as pediatrics. They may also work in areas where the clients have similar diagnoses, such as in a cardiovascular intensive care unit. In contrast, nurses employed in rural health care settings must provide care to individuals of all ages with a multitude of illnesses. For example, a nurse in a rural hospital may function in the morning as a scrub nurse in the outpatient surgery department and in the afternoon work as a trauma nurse tending to a severely injured client in the emergency department. Nurses employed in rural settings must be clinically proficient in a number of specialty areas in nursing (Bigbee, 1993; Bushy & Bushy, 2001; Drury, 2005; Winstead-Fry et al., 1992). These nurses must assume multiple roles, adapt quickly to change, be creative, and possess the ability to think critically.

Rural nurse managers must ensure that a qualified nursing staff is available to meet the variety of health care needs of the rural community (Kramer 1996). In order to meet this demand, the manager must evaluate the individual nurse's ability to perform competently in the clinical setting. If a nurse demonstrates a deficiency in a certain area of practice, then the nurse manager must address these deficiencies and devise a plan for competent performance by the nurse. Currently, the majority of research studies related to

evidenced-based clinical nursing practice and competency assessment has taken place in the urban setting (Olade, 2004). Therefore, there exists a true need to further explore research topics particular to rural nursing. Rural nurse managers can utilize the information obtained from a research study which identifies rural nurse competencies to evaluate nursing performance. Furthermore, findings obtained from such as study can serve as a teaching/learning tool that nurse managers can incorporate into the development of facility educational programs. Finally, the most important reason for identifying competent nursing practice in the rural setting is to ensure the delivery of optimal patient care.

Problem Statement

The primary purpose of this study was to identify nursing competencies most associated with good nursing practice in Critical Access Hospitals as perceived by a Delphi panel of rural nursing experts. The research objective was accomplished utilizing a Delphi panel of rural health nurse experts who are currently employed as a Director of Nursing in a Critical Access Hospital.

Specific Objective

To identify the nursing competencies most associated with good nursing practice in Critical Access Hospitals as perceived by a Delphi panel of rural health nursing experts.

Significance of the Study

This study sought to identify nursing competencies most closely identified with good nursing practice in a rural setting. In view of the unique characteristics and the diverse needs of the rural population, it is of utmost importance that the health care needs of this population are met to the fullest capacity. In order for this to occur, health care delivery

to this population must be performed in a competent manner. The nurses providing this care must exercise a level of proficiency that is in keeping with quality patient care. In order to ensure the delivery of quality health care, nursing must identify those competencies needed by nurses to practice effectively in the rural setting.

Definition of Terms

The following terms were operationally defined for use in this study.

1. Nursing competencies – Competencies are defined as the identification of the skills, knowledge, and attitudes needed to foster successful performance in a job or profession (Zemke & Zemke, 1999). Nursing competencies are specific to the profession of nursing.

2. Rural health nurses – Nurses employed in health care facilities located in areas with a population of 2,500 or less.

3. Good nursing practice – The delivery of complete and comprehensive nursing care which encompasses the biological, psychological, and physiological needs of the patient.

4. Critical Access Hospital – A hospital designation created by the Rural Hospital Flexibility Program of the Balanced Budget Act of 1997 which allocated funds to assist rural areas in meeting the health care needs of the population. The Critical Access Hospital is a 25-bed capacity hospital located in a rural setting which provides acute inpatient, skilled and emergency services.

5. Rural nursing expert – A nurse who is currently employed as a Director of Nursing in a Critical Assess Hospital.

CHAPTER 2

REVIEW OF LITERATURE

A review of relevant literature regarding the identification of competencies in rural health nursing will be presented in this chapter. Background information on rural hospitals and characteristics of the rural population will be presented. The challenges and demands of nursing practice in a rural area will be discussed. The concept of nurse competency will be defined from the perspectives of various researchers. A discussion of research utilizing the Delphi technique and methodology will be included.

The Rural Population

Every population has a unique culture and various characteristics which set it apart from other groups. Bigbee (1993) stated that rural residents are best characterized as more conservative, traditional and work-oriented. They also have a tendency to place more trust in services provided by local versus urban establishments including health care institutions. A rural community shares norms and cultural beliefs that may impact the health and well-being of its residents.

The 2001 Rural Task Force created by the Department of Health and Human Services found that the rural population experiences poorer health outcomes than the urban population. Areas with the greatest disparities are mental health care, dental care, substance abuse, and public health care. Other problems identified in rural populations were poor health insurance coverage, a lack of accessibility to care, and a lack of health care providers. State and federal governmental agencies have added to these problems through inappropriate utilization and dispersion of federal and state funds, and a general lack of knowledge among policy makers on the needs of rural residents. Rural areas have

a higher proportion of senior citizens and children, higher rates of chronic illnesses, more medically uninsured, higher poverty rates for the elderly, higher infant mortality rates, and increased occupational risks associated with the farming, mining, and timber industries (Bigbee, 1993; Lee & Winters, 2004; Rogers, 2001). Currently, more elderly are leaving the urban areas and migrating to the rural setting (Rogers, 2001). According to Bigbee (1993), rural residents are less likely to engage in health promotion or illness prevention programs as opposed to urban residents.

Lee and Winters (2004) examined how a rural population perceives health care and health care needs in a rural setting through a series of interviews conducted over a period of one year. The participants defined health in terms of being physically, mentally, and emotionally fit. Distance, access to care, the availability of specialists, the timeliness of response to emergencies by local ambulances, and a lack of confidentiality of health care information were voiced as concerns among the rural participants in the study.

Mason (2004) viewed the personality of rural individuals as one of self-reliance and independence, thus these individuals often delay seeking health care assistance. When finally seeking health care, these people's needs were often more acute and critical. Distance, isolation, and a lack of transportation were other factors that affected the rural individual's seeking health care. Also some rural patients, who were in need of an urban specialist's care, sometimes exhibited a lack of trust toward the specialist and chose to seek care only from a rural provider who may not have had the necessary skills to provide adequate care.

Cudney, Craig, Nichols, and Weinert (2004) discussed the difficulty in recruiting individuals from rural settings to participate in research studies. They used, as an

example, four different research studies conducted in communities with less than 20,000 people and more than 25 miles from a major commerce city. Through their research in rural settings, these authors emphasized the importance of the researcher understanding the uniqueness of the rural culture and how this culture can vary among rural settings. Since the researchers were considered "outsiders" by the rural participants, it was imperative that the researchers established a rapport with the community leaders, keeping them abreast of the benefits and progress of the study. Ensuring that the study did not interfere with the rural individual's work cycle was noted as extremely important.

The Origination of the Critical Access Hospital

In the 1980's rural hospitals began to suffer economically. The Medicare Diagnosis Related Group Prospective Payment System (PPS) of 1983 provided reimbursement of predetermined fixed rates for certain groups of illnesses (Johnson & Barba, 1992). The purpose of this legislation was to decrease the cost of health care and decrease the length of the patient's hospital stay, thus minimizing government spending for health care. Urban hospitals were able to collect and receive more money than rural hospitals for the same services provided, thus creating limited profits for rural hospitals. In the fourth year of PPS, 60% of rural hospitals did not break even financially. Between 1980 and 1990 approximately 300 rural hospitals closed.

The health care needs of the rural population had been overlooked until 1997. Critical Access Hospitals (CAH) became a reality through a federal program designed to address the financial problems of rural hospitals and improve access to health care for those living in rural areas (Bushy & Bushy, 2001). This federal initiative was entitled the Medicare Rural Hospital Flexibility Program created by the Balanced Budget Act of

1997. The method of reimbursement changed for rural hospitals. Critical Access Hospitals became cost-based reimbursed on a fee for service rate as opposed to Medicare DRG PPS reimbursed. In order to qualify as a CAH, the average length of patient stay must not exceed 96 hours. Twenty-four hour emergency services must be provided by the facility. The maximum number of inpatients allowed in a CAH is 25, excluding patients being cared for in outpatient surgery areas or in the emergency department.

Issues Faced by the Rural Hospital

The issues faced by rural hospitals in addressing the health care needs of the community are many. Because of the limited size of the rural hospital, different types and levels of health care are often provided in the same areas. This is unlike the urban hospital that has specific areas designated in the hospital to treat certain types of illnesses or conditions (Johnson & Barba, 1992).

According to Bushy and Leipert (2005), rural hospitals face the huge challenge of attracting nurses to practice in rural areas. Rural hospitals can not compete financially with urban hospitals to attract nurses, offer a limited variety of work schedule alternatives, and have few specialty areas such as high level intensive care units. Trossman (2001) reported that recruiting nurses to work in the rural environment is becoming increasingly difficult and will only become more difficult with the nursing shortage. She noted that the majority of nurses who contract for services prefer to work in urban hospitals. Furthermore, contract nursing is often too expensive for the rural hospital to fund. Other issues associated with recruiting nurses to the rural environment include major lifestyle differences compared to urban areas, and few job opportunities for spouses. It is also important to note how differently the lack of available staff impacts the

rural hospital. Normally only 1-3 registered nurses are assigned per shift in a rural hospital, so the loss of one nurse due to absenteeism or other reasons may be consequential to providing adequate health care.

Rural hospitals must be accountable for the competency level exhibited by all hospital employees including the nursing staff (Kramer, 1996). Problems with competency can place the hospital in legal jeopardy, not to mention the personal effects of incompetent care on the hospital patient's well-being. In order to foster competency among hospital staff, hospital administration must budget monies for educational programs. Quality assurance programs must be in place to monitor the effectiveness of education programs. Unfortunately, the availability and number of staff knowledgeable in education and quality assurance regulations poses a problem for many rural health institutions.

Finally, the amount of nursing research conducted in the rural hospital setting has been limited in contrast to the urban setting (Johnson & Barba, 1992). According to Johnson and Barba, rural hospitals are more reflective of the culture and diversity of the rural community, unlike the urban hospital which may not portray an adequate picture of the population it serves. Rural hospitals must be viewed as vital to the overall health of the rural community. The issue of promoting research activities in rural settings must continued to be addressed.

The Face of Rural Nursing

One major term emerged in the literature as descriptive of rural nursing practice. That is the nurse must function as a generalist in the rural setting (Bigbee, 1993; Bushy, 2000; Bushy & Bushy, 2001; Bushy & Leipert, 2005; Crooks, 2004; Drury, 2005; Eldridge & Judkins, 2003; Huttlinger, Schaller-Ayers, Lawson, & Ayers, 2003; Kenny & Duckett,

2003; Kramer, 1996; LaSala, 2000; Lee & Winters, 2004; Long, Scharff, & Weinert, 1997; Rosenthal, 2005). In other words, nurses in rural settings must be cross-trained and possess the ability to perform competently in two or more clinical areas. Rural nurses are expected to demonstrate excellence in clinical decision-making and function in a more independent, generalized fashion. Specialization in the areas of nursing practice is not possible in the rural setting.

Several authors expounded on the meaning of generalist practice in the rural hospital. Mason (2004) described rural nurses as "critical thinkers, steadfast, patient, skillful, and knowledgeable" in their role as a rural nurse (p. 10). Kramer (1996) stated that rural nurses must demonstrate clinical competence, exercise good judgment, modify patient care plans depending on the situation, and be able to function beyond protocol guidelines. Rural nurses must demonstrate the ability to function autonomously, take more responsibility for decision-making, and possess excellent physical assessment and technical skills (Eldridge & Judkins, 2003). Bigbee (1993) defined the rural nurse as a generalist with multiple roles and expectations. These nurses must be independent, self-directed, creative, flexible, organized, adaptable to change, and confident. In fact, according to Bigbee, rural nurses need to be proficient in all areas and must be considered the "best and the brightest" (p. 139). Excellent critical care skills, strong teaching abilities, and a knowledge of pharmacy, respiratory therapy, and nutritional services are other characteristics of rural nurses. Also rural nurses have a tendency to be more involved in administrative duties than urban hospital nurses, thus adding another dimension to rural nursing practice. Finally, it is important for rural nurses to understand

the organizational, political, and economic structures of health care in a rural area to ensure the population receives quality care (Long et al., 1997).

Bushy and Bushy (2001) wrote that there are many demands placed on nurses employed in rural facilities such as Critical Access Hospitals. They stated that rural nurses "must be geriatric nurses in the nursing home, trauma nurses in the emergency department, and acute care nurses in a CAH. Their knowledge base must be broad to deal with a wide range of situations" (p. 306). In addition, these nurses often function in situations without a physician or specialized physician such as a pediatrician.

With the huge demands obvious in rural nursing, why would a nurse choose such a challenging work environment? Bushy and Leipert (2005) sought to determine what factors influence a nurse's decision to practice in a rural setting. They found that those having life experiences and connections in small communities were more likely to choose rural nursing. These nurses knew the community culture and norms and were more comfortable in caring for a population that they truly understood. Also, nurses who practice in rural hospitals, normally have a spouse employed in the community or have succumbed to urban burnout (Trossman, 2001). Finally, according to the National Rural Health Association Issue Paper (2005) nurses employed in rural settings are normally well-respected and more appreciated by the population than urban nurses. This would certainly add a positive aspect to practice as a rural nurse.

Besides functioning as a generalist, cross-training rural nurses is necessary because of its many advantages to the rural hospital (Snyder & Nethersole-Chong, 1999). The positive aspects of cross-training include broadening nurse competencies, increasing job flexibility, unifying staff, and increasing cost effectiveness for the institution. Fluctuating

censuses are often characteristic of a rural hospital, and cross-training can avoid staffing cuts and layoffs during the periods of low hospital census.

The rural nurse must meet three types of needs in order to deal with the demands of rural nursing (Mason, 2004). These needs are defined as personal, community, and professional. The personal needs for the rural nurse include the presence of social contacts in the community with similar interests, and the existence of family support for the nurse. Employment opportunities for spouses, adequate child care, and a strong educational structure for children must also be present. Next, the rural nurse has community needs, which means the nurse must understand the culture of the community in order to communicate and provide appropriate health care to the rural residents. Lastly, rural nurses must have professional needs which are met through adequate ongoing continuing education programs.

Rural Nursing Practice Issues

The rural practice environment has many unique characteristics which govern how nurses practice differently from urban nurses (Eldridge & Judkins, 2003). Certain factors inherent in the rural population are a larger number of uninsured, higher rates of poverty, more participation in high risk behaviors such as cigarette smoking and excessive alcohol intake, and more obesity. Homicide rates are lower but deaths due to suicide and accidents are higher in rural areas. Rural nurses are often faced with working with older and outdated equipment, have to spend more time teaching due to illiteracy problems in the rural community, and have to deal with a lack of patient privacy and confidentiality in the small rural community. Rural hospitals also have fewer baccalaureate-prepared nurses and have a lower ratio of registered nurses to licensed practical nurses.

The most prevalent rural nursing issues cited in the literature were the lack of anonymity and professional isolation (Bigbee, 1993; Bushy & Liepert, 2005; Eldridge & Judkins, 2003; Lee & Winters, 2004; Rosenthal, 2005). The lack of anonymity meant that the majority of rural dwellers knew the individuals employed at the local health care facilities, particularly the nurse. It was perceived as common practice for the rural nurse to be called upon for health care advice outside of the hospital setting. The rural nurses also often felt professionally isolated from the current nursing trends, practices, and techniques only found in the more specialized urban hospital. Other researchers such as Bushy and Liepert (2005) wrote that rural nursing practice is challenging because of the geographical distance between the health care facility and the individual seeking health services. Rural people do not always seek health care in a timely manner because of this distance, so they are often more ill when entering the health care delivery system.

Bigbee (1993) listed the lack of patient confidentiality, limited social activities, job stress, difficult working conditions, a lack of available educational programs, and a lack of job flexibility as the most important rural nursing practice issues. Other challenges to rural nursing included the lack of available formal social services and other resources in the rural community for the patient, an increased hospital patient work load, and the issues inherent in caring for a large number of uninsured patients.

In an exploratory descriptive study conducted by Rosenthal (2005), a group of rural nurses were interviewed and asked to share their experiences of working in a small rural hospital. The nurses relayed stories of how they would provide care for a trauma victim in the emergency department prior to the arrival of the physician, develop a nursing plan for a newly admitted hospice patient, and then function as an obstetrical nurse assisting in

the delivery of a newborn baby, all on the same day. Rosenthal viewed the rural nurse's shift as replete with struggles, dilemmas, opportunities, and threats that were only found in the rural health environment. Several themes emerged from these interviews which included the rural nurse's role of filling non-professional roles as well as professional roles. Fears and incidents of rule-breaking or practicing outside of the scope of nursing, the need for strong teamwork, and the need to possess a wide range of clinical experience were also viewed as practice issues.

Drury (2005) interviewed mental health nurses employed in rural and remote areas. Five major themes emerged as characteristic of nursing in the rural environment. These included the importance of practicing holistic care, which was defined as the rural nurse's need to not only care for the client but the community as well. The ability to practice in an autonomous manner due to the isolation of the rural setting was the second major theme. A lack of professional development, status recognition and supervision prevailed as the third theme of rural mental health nursing. Nurses believed that formal training and orientation to policies and procedures in a rural environment was often limited. Continued supervision was a problem because of the fewer number of nurses scheduled each shift. Educational support was viewed as the fourth major theme whereby students seldom had the opportunity to experience clinical in a rural setting while pursuing a nursing degree. Upon graduation, these students had a lack of knowledge related to what rural nursing actually entailed. Lastly, caseload numbers and composition were also an issue because nurses in rural areas were assigned patients irrespective of experience. This was in contrast to urban settings where caseload assignment was based on the complexity of the case and the nurse's level of experience. Drury believed that these

interviews substantiated that the role of the rural nurse can only be viewed as extremely complex.

Kenny and Duckett (2003) conducted a qualitative descriptive study that examined the issues that affect the ability of the rural health care institution to provide quality health care. Findings revealed that there were many issues that concerned the nurses employed in the rural setting. These concerns included a lack of medical support for nurses practicing in rural environments, an aging rural workforce, ensuring that rural nurses had the knowledge and skills necessary to practice in this type of setting, and a lack of baccalaureate-prepared nurses practicing in the rural hospital. The overall concern was that rural nurses were expected to fill multi-skilled roles in the hospital but were not academically prepared by schools of nursing for rural practice. According to these researchers, policymakers internationally did not have an understanding of rural nursing practice nor did they acknowledge the differences between rural and urban health care delivery systems.

Newhouse (2005) utilized the focus group approach in asking rural nurse executives to identify the primary nursing issues in rural hospitals. The major issues recognized included the physical isolation of the rural hospital, the high number of uninsured patients, the lack of preventive health services, the lack of mental health and drug rehabilitation services, staffing shortages, and the continual changing nature of the community brought about by the seasonal influx of migrant farm workers. The author expounded on the need to address these issues since rural nursing was the “cornerstone of hospital quality” (p. 357) and played a major role in affecting patient outcomes.

Crooks (2004) advocated the need for rural nursing to be considered a specialty role in nursing. She stated that rural nursing should not be considered related to urban nursing but should be recognized as a field of nursing that requires special skills and knowledge. Rural nurses must be proficient in multiple areas and possess a broad knowledge of skills from all health care specialty areas. Crooks believed the multiple roles assumed by the rural nurse in clinical practice may be the reason rural nursing had not been considered a specialty area. She also reported that the overwhelming health care needs of the rural population would have been recognized sooner by state and federal governments had rural nurses written about their experiences and practice in the rural setting.

The final issue related to rural nursing practice can be viewed as more personal in nature. Those nurses who work in rural settings often feel that they do not receive the same professional respect given to nurses employed in large urban hospitals. Trossman (2001) reported that many nurses as a whole have prejudicial views of rural nursing. Many urban nurses believe that rural nurses are less intelligent, rural hospitals are outdated, and rural physicians are "backwoods" doctors with limited clinical expertise.

Rural Nursing Staffing, Recruitment, and Retention

Several researchers and organizations have examined recruitment and retention issues in rural nursing across the United States. Eldridge and Judkins (2003) reported that rural areas simply do not have a sufficient number of health care workers. The National Rural Health Association Issue Paper (2005) stated that recruiting and retaining a quality health care workforce in the rural setting is a monumental problem. Current statistics indicate that the majority of health workers who serve the rural areas actually come from

the rural area. This article expressed concern that rural primary and secondary schools may not adequately prepare a student academically to enter into the health professions. It was suggested that rural education must provide the foundation for health care curricula by offering special community-based training and programs for high school students wishing to pursue a degree in a health care field. Federal and state incentives to health care providers who wish to practice in rural settings must also be instituted.

The North Dakota Board of Nursing funded the North Dakota Nursing Needs study to determine nurse workforce needs in rural and urban areas and compared this data to national data (Moulton, Park, & Wakefield, 2003). Findings from this study indicated that the rural and semi-rural health care institutions reported the greatest difficulty in retaining and recruiting nurses. It was also determined that rural health care institutions must work harder to retain those nurses already employed in their health care setting.

LaSala (2000) investigated the recruitment and retention barriers and distribution of nursing in rural versus urban areas in the State of Virginia. Utilizing a survey tool, the author found that over half the agencies used cross-training as a means to ease staffing issues. In this Virginia study, more of the rural facilities reported no nurse vacancies than the urban facilities. However when major vacancy rates did exist, rural settings (19.2%) reported greater vacancies than urban settings (2.7%). Urban hospital's affiliations with schools of nursing had a positive influence on retention and recruitment. Schools of nursing were normally located in urban areas so clinical rotation experiences in rural hospitals were extremely difficult due to time and distance. Other barriers to rural nurse recruitment and retention had been the decline in agriculture and forestry which had left some rural areas in an economic crisis. Job availability for spouses and the lack of family

support were also indicated as problems encountered when hiring nurses to work in rural areas. On a positive note, the family-like atmosphere of the rural setting attracted nurses to rural health care facilities which accounted for the less turnover rate in the rural hospital. Salaries had the greatest impact on retention and recruitment and were comparable for both urban and rural hospitals.

Mason (2004) discussed the impact of Oregon's economic crisis, and the effects of the national nursing shortage on rural nursing. Mason reported the lower Medicare reimbursement for rural health care providers affected the decision of physicians to practice in rural settings. The state's economic problems significantly impacted the rural areas, causing more highly educated individuals to leave the rural area and seek employment in metropolitan areas. Mason considered nurses a valuable commodity in rural areas and that increased efforts should be made to recruit and retain rural nurses

Trossman (2001) reported that the major reason it is often difficult to recruit nurses to work in rural areas is the fact that these rural nurses must function as generalist and must be extremely confident in their abilities. Many nurses are not comfortable working in a variety of areas and prefer to specialize in areas, such as pediatrics or obstetrics. Rural nurses must be prepared to provide competent care to a wide variety of patients

In addition to recruitment and retention problems, nursing staffing patterns in rural hospitals also pose a dilemma at times. Jordan (1994) stated that regardless of the patient census in a rural hospital, a minimum number of nurses are required to staff the facility. A problem occurs when the patient census fluctuates, which often occurs. The number of nurses staffing the hospital may be sufficient for patient care on one day and not sufficient the next day.

Continuing Education in the Rural Hospital

Ensuring that nurses have available continuing education opportunities is important to the provision of quality health care in the rural hospital. Unfortunately, according to Bushy and Liepert (2005), decreased educational opportunities are often an issue for the rural nurse. Bushy and Bushy (2001) surveyed nurses in Critical Access Hospitals and found that continuing education needs are often an area of major concern for the nursing staff and nurse managers. The responsibility of coordinating educational activities is normally one of many duties for the nurse designated as the education supervisor. Therefore, time is limited for planning continuing education activities. Some rural hospitals can not even afford to hire or designate a nurse as education supervisor or nurse educator (Newhouse, 2005).

When the rural hospital is able to maintain an education department, then many challenges exist for the rural nurse educator (Newhouse, 2005). One of these challenges is ensuring that the staff maintain clinical competency in what is termed low-volume but high-risk situations. For example, the CAH may not have a labor and delivery department, but if an obstetrical patient presents to the emergency department with a diagnosis of imminent childbirth, the nurse must know how to respond in properly caring for this patient. Another continuing education concern is related to pharmacology. Rural hospitals rarely have a pharmacist in the facility, 24 hours per day seven days a week, so nurses must be highly knowledgeable of pharmacology and medication administration practices (Bushy & Bushy, 2001).

Dorsch (2000) recognized the importance of continuing education in the rural setting and sought to determine the primary information needs of rural health professionals,

literary sources normally utilized, frequency of source use, and barriers to obtaining health care information. Information needs were defined as the knowledge needed by health professionals to provide patient care. This researcher also examined whether the information needs of rural professionals differed from those of urban health care professionals. Findings revealed that the rural professional sought health care information equal to the urban professional. The internet was readily available to both the rural and urban providers. The problem for the rural professional was the lack of available hospital library services and personnel that could assist with the gathering of information. Many of the electronic full-text journals that contained vital continuing education material were only available through a hospital library which the rural hospital lacked. Urban hospital administrative services were more likely to fund the acquisition of books and journals as opposed to the rural hospital administration. It was determined that the rural health professional often personally assumed the costs for any updated health care information. In summary, the rural health professionals used textbooks more than journals, had less access to libraries, and utilized on-line databases less frequently.

Rural Nursing Research

Research related to rural nursing practice has been limited and the need for more research is apparent (Bigbee, 1993; Kenny & Duckett, 2003; Mason, 2004; Newhouse, 2005). Racher, Robinson, and Annis (2004) believed that nurses play a pivotal role in rural health care delivery particularly in the area of health research. A descriptive study by Olade (2004) sought to determine whether rural nurses utilized evidenced-based practice and research findings in the practice arena, to what degree rural nurses were involved in research activities, and what were the barriers to conducting research

activities in the rural setting. This author noted that the majority of research related to nursing practice had been conducted in the urban setting. Results revealed that less than 21% of the rural nurses were currently involved in research activities and utilization of evidence-based practice guidelines in the clinical area, which was considerably lower than research utilization by nurses in urban areas. The two major areas of research undertaken in the rural setting had been pain management and pressure ulcer prevention, but rural nurses in this study voiced the need for research on nursing outcomes, staffing, and quality of patient care to name a few. Barriers to research participation cited by rural nurses included the isolation of the rural area from research institutions, the lack of budgetary allowances for research, the lack of time, and the absence of a research nurse role model working in the rural setting. An overwhelming 76% of the rural nurses in the study stated they would be interested in participating in research activities and utilizing research guidelines in the delivery of patient care.

Defining Nurse Competency

According to Whittington and Boone (1988), there were three reasons why professional competence in nursing had to be identified. First, nursing had long expressed the need to be recognized as a profession. Previously the desire for professional status was thwarted by nursing education's confinement to hospital-based programs as opposed to university-based programs. This changed as nursing education moved toward the requirement of a university degree for practice. Secondly, clinical evaluation techniques in education had been refined, thus allowing the delineation of competencies for nursing practice. Lastly, if more research in competency assessment in nursing occurred, nursing theory development would improve as well.

Tzeng and Ketefian (2003) stated that the increasing complexity of health care is the driving force behind the need to ensure a competent nurse workforce. They defined nursing competence in terms of personal skills developed as outcomes of nursing education courses. They believed competencies change with the environment and consist of practical skills and broad abilities. Their research encompassed the investigation of the nurse competencies needed by staff nurses based on information obtained from hospital employers in the country of Taiwan. In this study, 21 competencies were identified as needed by staff nurses. The competencies most needed included general technical skills, the ability to work independently, interpersonal communication, professional orientation, assessment skills, general clinical skills, self-coping skills, team building, health system knowledge, and critical thinking. These authors believed that nursing care in the United States was more specialized and that the family played a minimal role in caring for the patient. In Taiwan there were fewer nurses that were specialized, and the family played a larger role in patient care. This type of nursing would be somewhat similar to practice in a rural setting because rural nursing practice is considered less specialized.

Benner was one the first nurse researchers to address the issue of competency in nursing. Benner (1984) wrote that expertise in nursing practice develops only after the nurse has tested and refined nursing hypotheses and principles in actual clinical practice settings. She applied the Dreyfus Model of Skill Acquisition to the practice of nursing. Dreyfus had developed his model through the study of airline pilots and chess players and believed that in order to master the skills related to a profession, an individual must pass through a series of five levels. These levels were novice, advanced beginner, competent,

proficient, and expert. According to Benner (2004) the Dreyfus Model of Skill Acquisition was appropriate as a guide in describing how nurses acquire skills and utilize proper clinical judgment in the practice setting. Benner conducted three studies which sought to determine how nurses attain skills and develop knowledge in the clinical area while progressing through the five levels. The first level is the novice, which is defined as the nursing student who lacks clinical experience and does not have the background to understand or deal with a clinical situation. The novice normally relies on the textbook for answers to clinical problems. The next level is the advanced beginner which is the newly graduated nurse. There is a great deal of stress and anxiety associated with this level. The advanced beginner uses the textbook and is dependent upon others for information and assistance in patient care. The nurse enters the competent stage one-to-two years into practice. How a nurse develops competence depends on the type patient population for whom they care, and the quality of clinical education they receive. Emotionally, competent nurses feel great satisfaction when their clinical judgment is correct and great remorse when their clinical judgment is not satisfactory. These nurses are now able to recognize competency or a lack thereof in others. They purchase more comprehensive and complex books to utilize as references in the work environment. The proficient nurse is the fourth level of skill acquisition. In this level the nurse is comfortable with the clinical setting, exercises good clinical judgment, and possesses the ability to easily articulate clinical findings to others. The final level is considered the level of expertise. In this level the nurse, through clinical experience, has developed an intuitive stance to patient care. This nurse can respond to a clinical situation with ease and change as the situation changes. Benner defined good nursing practice as skilled

ethical practice along with scientifically based clinical judgment. Good clinical judgment and performance requires a sound educational foundation combined with experiential learning. She believed that clinical research is necessary to ensure best practices in nursing.

Using Benner's competency framework, Meretoja (2004) developed the Nurse Competence Scale. They stated that the assessment of competence in the clinical setting should be the foundation for quality assurance, planning workforce strategies, and management of human resources in the hospital environment. The Nurse Competence Scale consisted of 73 items divided into seven category headings which included helping role, teaching-coaching, diagnostic function, managing situations, therapeutic interventions, ensuring quality, and work role.

The National Council of State Boards of Nursing began exploring the issue of nurse competency in practice in 1985. This organization described competence as "the application of knowledge and the interpersonal, decision-making, and psychomotor skills expected for the nurse's practice role, within the context of public health, welfare, and safety" (p. 2). Currently the Council is conducting a study to determine a nurse's initial competency requirements immediately following graduation and requirements for continued competence. Results of the study are due to be published in the latter part of 2006 or in 2007.

Meretoja, Eriksson, and Leino-Kilpi (2002) found that there was a significant amount of confusion concerning the definition of competence. They viewed competence as a management of clinical practice by the nurse. In their study they collected information from nurses with various backgrounds employed in a large urban hospital. These nurses

identified 23 generic indicators of competent nursing clinical practice. Findings revealed that competent practice should focus on the holistic understanding and management of clinical situations rather than breaking down the competencies into specific tasks. The most relevant nurse competency indicators emphasized collaboration, coordination, appropriate judgment in various situations, being responsible, and utilizing new knowledge.

Zhang, Luk, Arthur, and Wong (2001) examined the underlying nurse competencies that are instrumental in effective nurse practice. These authors considered the terms competence and competency as two distinct concepts. Competence was defined as more job-related, in relation to the individual's ability to meet job requirements through the production of quality work. Competency was defined as person-centered, meaning the characteristics or attributes of the individual that lead to effective job performance. Nursing competencies were defined as "sets of knowledge, skills, traits, motives and attitudes that were required for effective performance in a wide range of nursing jobs and various clinical settings" (p. 469). In this study 50 hospital nurses from various departments were interviewed and ask to report one successful incident and one unsuccessful incident in dealing with patients. As part of this reporting, the nurses were asked to describe their behavior during the incident, actions taken in the situation, and the outcome of their actions in providing patient care. A panel of experts coded the incidences and determined a total of 10 competencies or nurse characteristics that were most evident in the successful patient incident interactions. These competencies were interpersonal understanding, commitment, information gathering, thoroughness, persuasiveness, compassion, comforting, critical thinking, self-control, and

responsiveness. Interpersonal understanding was found to be the most important attribute related to good nursing performance and effective nursing care for the patient.

Connelly, Yoder, and Miner-Williams (2003) defined nurse competency as "expectations that professionals have for a particular role" (p. 299). Using an exploratory qualitative research design, they interviewed 42 nurses to determine competencies needed by charge nurses in the clinical setting. A total of 54 competencies were identified and then placed under the four categories of clinical/technical skills, critical thinking, organizational skills, and human relations skills. This competency list assisted nurses in determining if the charge nurse position was an appropriate role to consider. It helped those already in charge nurse positions to organize duties, manage and assign tasks, and understand how to form relationships with staff and superiors.

Through interviews with 29 nurses working in long-term care, Ballantyne, Cheek, O'Brien, and Pincombe (1998) developed a model to illustrate nurse competencies needed to care for aged patients in extended care institutions. The four critical aspects of nurse competencies identified and used in this model were communication, knowing, people, and outcomes. The communication competency involved the nurse working as a patient advocate, practicing teamwork, and using listening skills effectively. Knowing was considered a key competency and meant that the nurse must recognize their patient's needs, view the patient as a special person, and exercise caring. The people component addressed the recognition and roles of the family, significant others, residents, and other health care professionals in caring for the aged client. Lastly, the outcomes aspect dealt with ensuring the aged patient had the opportunity to make informed choices, trusted the nursing staff, and received a safe, holistic continuity of care.

Bradshaw (1998), a nurse researcher from the United Kingdom, performed an analytical review of competency in nursing practice. She viewed competency in nursing as vaguely and broadly defined and emphasized the need to define competency in all clinical areas of nursing. Bradshaw believed a lack of competency clarification could have legal ramifications for the health care system and the individual nurse. She called upon institutions, governmental agencies, and schools of nursing to identify the minimal standards required for nursing practice, develop a core curriculum for nursing education, and develop a national system to test nursing competencies prior to allowing the individual to practice as a nurse.

Leeuwen and Cusveller (2004) conducted a qualitative exploratory review of the literature in hopes of identifying the competencies needed by nurses to provide spiritual care. They defined competencies as a set of skills used in professional practice. Spiritual care was discovered to be an integral part of all professional nurse competencies except for those competencies related to prevention and health education. They found that nurses collected information on the patient's spirituality and utilized this information in planning care for the patient. The authors also noted that the nurse has the ability to handle their own value system when dealing with patients from different beliefs and religious backgrounds. They advocated that educational programs develop a competency profile related to spirituality in the clinical setting.

Pearson, Fitzgerald, Walsh, and Borbasi (2002) sought to identify indicators of continuing competence in Australian nursing through an extensive review of the literature. They believed that competencies should focus on outcome performance rather than the matter in which the nursing skill is learned. These authors also noted that

competency identification and assessment was easier in those professions that required a vast amount of psychomotor skill achievement as opposed to professions that required decision-making and critical thinking. Results of their literature review revealed that there was no definitive answer on how competencies should be identified and addressed. It was suggested by these researchers that nursing professionals must develop clear competency statements and should consider examining how other professions assess competency.

Other health-related professions have addressed competency assessment as an integral part of professional practice. The Educational Council of the American Academy of Physician Assistants (1996) explored the concepts of professional competency and competency assessment. This group defined professional competency as the application of specialized knowledge, not just having knowledge. The Council went on to explain that clinical competency is a combination of the skills and the knowledge necessary to perform the skill. Clinical competence requires reflection on the part of the individual to ensure the appropriate actions are taken. An individual who wishes to obtain competence should be self-directed, practice continuing education, and undergo periodic competency assessments. This Council agreed that research was needed to study and identify clinical competencies for the physician assistant in practice.

Ellis (1988) believed that competence is a necessary component of professionalism. Caring professions, such as nursing, should define competence as a research-based mastery of skills, knowledge, and values and should observe performances in order to assess competency. In other words, competence should be viewed as specific observable behaviors that can be categorized in relation to measurable

standards. Ellis stated that members of caring professions should be wholeheartedly involved in the development of competencies and review professional knowledge acquisition and display of these competencies. These performances or competencies should lead to effective outcomes for the individuals for whom the profession is caring.

Educational and Hospital Preparation For Competent Practice

Lenburg (1999) wrote that a concern for competent practice in nursing is growing due to the continuing changes associated with health care. The public is better educated in health care manners, thus the competency of health care workers is an important concept to examine. There exists a wide gap between the competencies needed to practice nursing and what the new nurse possesses upon graduation. Steps must be taken to narrow the gap. Nursing service and education must collaborate to ensure competent practice which is essential and mandatory to the delivery of health care. Faculty employed in schools of nursing must maintain proficiency in clinical practice. This author advocated that nurses from education and practice must examine options for ways of thinking and finding solutions, and become more accountable in the identification of competencies. Lenburg developed the Competency Outcome and Performance Model which identified eight main competencies fundamental to all areas of nursing practice. These competencies included assessment and intervention, communication, critical thinking, teaching, human caring relationships, management, leadership, and knowledge integration. Skills and subskills pertaining to these major competencies were documented. This model was developed to be used in the clinical practice setting as well as the academic setting.

Bramadat, Chalmers, and Andrusyszyn (1996) conducted a study on the knowledge, skills, and experiences needed for community health nurse practice. In this study, one rural administrator outlined a variety of competencies needed by the new graduate. These new graduate competencies included an inquisitive mind, knowledge in change theory, socialization skills, counseling skills, and the ability to assess individuals, families, and communities for health care needs.

While (1994) discussed the difficulty that nurses, particularly nurse educators, have with defining the words competency and competencies. The reason for this may lie in the fact that competence to practice professional nursing is measured in terms of success on a licensure exam. In her paper on competence and performance, she questioned what truly constitutes a competent nurse. She believed that competence should be defined in terms of an assessment of the individual's performance in a real-life clinical situation and not solely measured through the ability to pass a written exam.

Utley-Smith (2004) stated that the licensure success of nursing graduates measures the effectiveness of the nursing education programs but does not measure the clinical competency of the graduate. More attention must be paid to what constitutes a competent baccalaureate graduate. She believed that competency assessment is not static but is an ongoing process that encompasses change, problem solving, critical thinking and interpersonal and intrapersonal communication techniques. Utley-Smith elaborated that in order to ensure a competent workforce of nurses, work competencies must be constantly reassessed. She surveyed 363 nurse administrators from hospitals with 50 or more beds, home health agencies, and nursing homes. A competency list instrument developed by the Virginia Hospital Association along with the addition of 19

baccalaureate graduate nurse competencies added by Utley-Smith was utilized in this study. The major competency themes were health promotion, supervision, interpersonal communication direct care, computer technology, and caseload management. Results revealed that hospital administrators placed more importance on competencies related to interpersonal communication, direct care, and health promotion competencies. Nursing home administrators placed more importance on supervision and direct care competence. Health promotion and interpersonal communication competence were viewed as the most important competencies of home health nurses. Findings from this study emphasized the need for baccalaureate schools of nursing to examine students' clinical experiences closely, and select a clinical experience that is in keeping with the student's future career plans. For example, if the student intended to work in a nursing home setting then clinical experiences should focus more on supervision and direct care.

Mallory, Konradi, Campbell, and Redding (2003) used focus group and individual interviews of nurse educators and nurse clinicians to gather information on what constitutes ideal qualities of the new nursing graduate. It was noted that nursing curricula are designed to meet professional and academic standards but do not necessarily address the changing arena of nursing clinical practice. The study participants identified the abilities to prioritize nursing care, adapt to change, seek learning opportunities, positively connect with people, exhibit a positive attitude, and apply the nursing process, as ideal attributes of new nursing graduates. Prioritizing, decreased confidence levels, poor coping abilities, poor communication skills, and poor clinical skills were identified by the nurse clinicians as observed problem areas in hiring new graduates. The main strength in hiring new graduates was the fact that they are normally open to new ideas. From this

study it was determined that nursing education should focus on increasing the number of quality faculty that embrace the importance of a meaningful clinical learning experience.

Dracup (2004) wrote that hospitals must utilize preceptors and mentors in the clinical setting to guide and assist new nursing graduates in dealing with the complex hospital environment. She cited the current trend of some schools of nursing to offer accelerated programs in nursing to individuals with baccalaureate degrees in other professions. Although these types of graduates will help ease the nursing shortage, they do lack extensive clinical training due to the accelerated nature of the program. In order to ensure competent practice, these graduates would greatly benefit from mentors and preceptors when entering the workplace.

Watson, Stimpson, Topping, and Porock (2002) sought to determine the need for clinical competency assessment in nursing. These researchers reported that a conflict had occurred between clinical competency based and educational based approaches to nursing performance. They found that a great deal of confusion still exists over how to define and measure clinical competence. Some nurses have viewed a clinical competency-based education for nursing as one that focuses more on practice and less on the theoretical aspects which explain nursing practice. Proponents of the educational- based approaches believed more emphasis should be placed on theory in the classroom and less on the evaluation of clinical competency. These authors reported that there remained a great deal of confusion within the profession over what actually constituted competency in nursing. Some nurse educators viewed competence as only the achievement of classroom educational training and did not believe there was a need to assess clinical

performance. Others viewed competency in nursing as the assessment and successful performance of identified clinical competencies.

Anders, Douglas, and Harrigan (1995) raised concerns as to whether schools of nursing were adequately preparing students for practice in the clinical setting. They conducted a descriptive study to measure perceptions of new graduates by educators and administrators, define new graduate competencies, and compare the perceptions of competencies between educators and administrators. Utilizing a combination of a survey instrument adopted from the state of Virginia Hospital Association and a series of open-ended questions, the participants evaluated 26 different competencies. Forty-eight percent of the nurse administrators responded that new graduates did not meet competency expectations while 80% of nurse educators believed their graduates met competency standards. Some of the major problem areas identified by administrators were the limited ability of the new graduate to document patient care efficiently, the lack of supervisory ability, the inability to communicate effectively with other health care team members, and poor organizational skills. This study demonstrated the overall need for administrators and educators to collaborate and establish a dialogue to address what constitutes competent practice.

Watkins (2000) discussed the importance of academia and health care institutions having an ongoing open dialogue on competent nursing practice. Important information considered was that nursing practice should be built on research-based evidence as opposed to ritual or apprenticed style education. The model of competence developed by Benner was seen as an appropriate means of classifying nurses beginning with the novice, which would address the level of the nursing student to the expert which would be

appropriate for the experienced nurse. Schools of nursing were challenged to develop competencies for students at particular levels, with the student being unable to move to the next level until having satisfied the appropriate competencies. Ensuring students had meaningful clinical experiences would also be important. Schools of nursing would partner with various clinical facilities and sites to enhance clinical experiences for the nursing student. If the student was to become a competent nurse, then two types of educator must exist. These two types would be the educator who was a lecturer and had the ability to effectively convey information in the classroom, and a practice educator who was a strong clinician.

Buszta, Steward, and Chapin (1993) spoke to the importance of developing nurse competencies in an article outlining competency-based orientation programs in hospitals. The article explained the need to outline basic competency statements for new employees. The five competency domains identified were centralized orientation, decentralized orientation, task performance, skill development, and patient specific population. A centralized orientation competency statement was more or less a global statement, which addressed the basic knowledge a newly hired nurse should expect to possess. The decentralized orientation competency statement included competencies for specific units, such as pediatrics. An example of a task performance competency was the ability of the nurse to accurately transcribe physician orders. Performing wound care correctly would be an example of a skill development competency. Patient specific population competencies would be those that would address only specific types of patients, such as orthopedic or cardiac patients. These writers utilized the Dreyfus Model described by Benner (2004) to identify the five levels of competency from novice to

expert. They also advocated the use of preceptors to assist the newly employed nurse with successful completion of the competency based orientation program. Results from the implementation of such a program improved nurse retention and saved money. Fewer nurses left after six months of employment which served as a cost savings for the hospital. It was reported that the cost of one nurse turnover was at least $25,000 at the time this article was published.

Preparation For Rural Practice

Morgan and Reel (2003) proved how beneficial and enriching a student's clinical rotation in a rural setting can be for competent future nursing practice. These two university nurse educators collaborated with a rural community to conduct a clinical cultural immersion experience for their students. Prior to the initiation of the project the students completed a theory course on rural health and rural health care delivery systems. The primary objectives of the project were to develop a self-awareness of cultural differences, assess the community's health status and provide nursing care consistent with the rural culture. The objectives were met through the development of a health teaching project for the community and actual clinical experience in a rural health setting. Prior to beginning the project, the students did have negative preconceived notions of the rural health experience. Following the clinical rotation, the students had a deeper understanding of rural health and believed the experience would assist them in understanding the importance of cultural competence in the delivery of nursing care.

Bushy and Liepert (2005) emphasized the need to prepare nurses to practice in the rural setting by encouraging nursing schools to teach information to students on rural theory and practice, require rural clinical rotation, and invite rural nurses to be guest

lecturers. Clinical research collaborative agreements should also be encouraged between the rural health and academic environments.

Maintaining Clinical Competence

In the January 2000 issue of Nursing Management magazine, a group of nursing leaders who were members of the editorial advisory board predicted the top trends for nursing in the 21st century. The majority of these trends directly or indirectly addressed the importance of clinical competency in nursing. With the high cost of health care continuing to escalate, managed care was viewed as playing an integral role in health care delivery systems. An important component of these health care delivery systems was the monitoring of quality patient care through competent nursing practice. With information readily available from sources such as the internet, consumers are more knowledgeable about diseases and health care. Nurses in turn must be knowledgeable and competent in delivering health care to a better educated population. The panel also stated that nurses will be utilizing research more to guide nursing practice and the focus will be on outcomes to determine if nursing care is effective. Cross-training will increase which means the nurse will be called upon to perform competently in various areas in nursing. Lastly, nurses will need to enhance critical thinking skills to keep current with new treatment modalities.

Various studies have proven that nurses are indeed concerned with maintaining competent practice. Gibson (1998) utilized the Delphi to identify continuing educational needs of nurses employed in a medical-surgical urban hospital. Nurses identified current learning needs in their areas, such as infection policies, and future learning needs, such as differentiating roles of nurse practitioners. The support and recognition from

management, financial incentives, access to study leave, and a knowledge of current research were identified by nurses as the motivating factors to seek educational opportunities designed to enhance clinical competence.

Taylor (2000) stated that establishing a method to ensure clinical competency is a critical function of the health care institution that reduces the chances of errors and improves patient care. She formed a team of managers and clinical leaders who first conducted a review of literature on competence in nursing practice and then met to discuss the most important attributes of a competent nurse. From these discussions the team identified three major concepts that must be included in the competency assessment process. These included partnership, critical thinking, and performance rating. These concepts were threaded through four major competency categories. The nursing performance competency category encompassed the technical skills needed in the performance of nursing clinical procedures. The expertise and knowledge category included the competent formulation of a patient care plan, and the interaction category addressed patient communication. The mission/commitment category outlined how the delivery of nursing care reflected the values of the health care institution.

In 2004, an alliance of four national nursing organizations entitled the Quad Council of Public Health Nursing Organizations was formed to identify competencies that public health nurses need in order to effectively practice health promotion. Data were gathered through electronic mail, focus groups, organizational conferences, and a competency web site. The alliance identified the baccalaureate level as the nurse generalist level and the master's level as the nurse specialist level. It was discussed that not all public health nurses possess the baccalaureate or master's degrees, but these levels of educational

preparation were identified as the most appropriate level of preparation for successful practice in the public health domain. It was stressed that those nurses possessing associate or diploma degrees must undergo extensive on the job training and continuing education prior to being classified as a generalist or specialist depending on their particular job. Eight competency domains identified included analytic assessment skills, policy development/program planning skills, communication skills, cultural competency skills, community dimensions of practice, basic public health sciences, financial planning and management skills, and leadership and systems thinking skills. Under each domain several specific competencies were listed. For each competency it was identified whether the generalist or specialist would need to be proficient, knowledgeable, or have an awareness of the specific area. Examples of generalist competencies listed as proficient were identification of resources, application of ethical principles, and the development of plans to implement policies. The specialist competencies at the proficient level reflected more management and analytical responsibilities such as the evaluation of data and the identification of gaps in data sources.

Brykczynski (1998) utilized Benner's (1984) competency levels of nursing practice to identify and describe expert nursing practices in a large teaching hospital. The researcher interviewed a panel of experts and observed participants in practice over a period of 12 months. Areas of practice competencies were identified and classified under seven domains of expert staff nurse practice. The first domain was the diagnostic and monitoring function which listed critical thinking functions related to the assessment of the patient's condition and anticipation of the patient's needs. The healing role of the nurse domain emphasized communication and the provision of comfort measures.

Managerial skills such as the coordination of care, discharge planning, dealing with staff turnover, and coping with nurse shortages were classified under the organization and work-role competencies. Administering and monitoring therapeutic interventions and regimens addressed areas such as medication administration, wound care management, and the problems associated with patient immobility. The effective management of rapidly changing situations domain dealt with nursing performance in emergency situations. Monitoring and ensuring the quality of health care practices accentuated quality improvement strategies, documentation, managing technology, infection control, and the utilization of research findings to guide nursing care. The final domain was the teaching-coaching function which included patient teaching learning functions. The researcher further stressed the need to promote these expert practices through grand rounds, annual clinical nurse recognition days, facility newsletters, and the incorporation of these practices into annual staff performance evaluations.

Robinson and Barberis-Ryan (1995) developed a competency assessment framework utilizing Benner's (2004) work with the Dreyfus Skill Acquisition Model. Competencies were classified as technical, interpersonal, and critical thinking under the categories of novice, advanced beginner, and competent. Benner's final two categories of proficient and expert were not included in the framework since the facility had a clinical ladder program already in place that addressed these categories. This competency framework provided an organized format to evaluate the nursing skills of individuals employed at this facility. The information obtained from this assessment assisted administration in identifying the learning needs of the staff, planning educational programs, and assigning and scheduling nurses to appropriate units.

Jones, Cason, and Mancini (2002) examined the validity of simulated environments in assessing nurse competence in a large metropolitan area hospital. Nurses were required to pass a written test and then demonstrate a total of six skills in a simulated environment. Six months later the nurse was evaluated under routine patient care conditions on the performance of these six skills. Findings revealed that there was no difference in competency assessment performance between simulated and actual patient conditions. This supported the use of stimulated practice that is often more cost-effective and reasonable in a clinical setting.

Agency nurse assessment for competent nursing practice was examined by Novak (2005). Agency nurses are those that are hired by businesses that contract with hospitals to supply the health care facility with nurses on an as-needed basis. Since these nurses are not hospital employees, a real challenge exists for the hospital in determining if the agency nurse is clinically competent. Novak developed a program for one hospital after compiling information from hospital staff nursing on what they viewed as competency issues of agency nurses. The program for agency nurse competency assessment included an orientation process, resource tools, and an assessment program. The orientation program included an orientation to hospital policy and procedures including infection control practices and documentation guidelines. The assessment program was a four-hour skills assessment where the nurses were observed performing nursing skills, such as central line care. A stack of flip cards which contained important hospital policies and procedures and nursing information served as the resource tools that the agency nurses carried with them at all times and used as a reference. The agency nurse also had a resource person designated on each unit who was available during the shift to answer

questions and provide support. Ensuring competency increased staff morale because the hospital staff felt more comfortable assigning agency nurses to all types of patients, no matter the health care problem. The nursing staff periodically evaluated the agency nurse's performance to ensure continued competent practice. Because of this attention to competency assessment some of the agency nurses in the study left the agency to become full-time hospital staff.

In a study by Meretoja, Isoaho, and Leino-Kilpi (2004), the level of competencies of nurses was compared in different work environments in a large urban hospital. Nurses who self-assessed their level of competency using a 73-item questionnaire were identified as floor, emergency, intensive care, and operating room nurses. Overall the nurses felt most competent in the domains of managing situations, diagnostic functions, and the helping role. They felt least competent in the area of ensuring quality. These authors stressed the importance of the continued assessment of nurse competency levels to ensure safe and quality patient care.

Competency in Rural Practice

In the Quality Chasm report, compiled by health professional leaders at a summit convened in 2002 by the Institute of Medicine, five core competencies were identified that all health professionals should possess. These competencies were to provide patient-centered care, work in interdisciplinary teams, employ evidence-based practice, apply quality improvement, and utilize informatics (Board On Health Care Services, 2005). The Committee on the Future of Rural Health Care, a panel of experts selected from the fields of engineering, science, and medicine, met in 2005 to discuss the application of these core competencies to the rural setting. In relation to the rural setting, the committee

determined that providing patient-centered care involved an understanding of the client's cultural background by the health care worker. This would assist the health care worker in effectively communicating health information and providing quality patient care. The health care provider must also focus on allowing the patient and family to assume the role of primary decision-makers in health care decisions and not allow these decisions to be driven solely by health care professionals. This was noted as particularly important in the rural setting where there was a decreased proportion of people with formal educations. Working in interdisciplinary teams was another important competency related to health care. The mastery of this competency meant the facilitation of communication among health care professionals to ensure rural populations received appropriate care, especially those individuals with chronic conditions. The committee expressed concern over the lack of mental health specialists in the rural areas and the problems encountered with the primary care physician wearing the hats of many specialties in providing health care. The nurse was seen as an integral part in bridging the gaps that may occur in the mental health and primary health care delivery. Incorporating evidenced-based guidelines into practice was the next competency discussed at the meeting. This entailed the utilization of science and research guidelines as a basis for selecting strategies for patient care. Successful accomplishment of this competency was previously difficult to attain due to the isolation of the rural setting from educational opportunities, but the use of the Internet and web-based information had at least partially improved the rural facilities' ability to address this competency. The application of quality improvement programs in the rural health environment was emphasized by the committee. This involved using a system of assessments to examine the effectiveness of hospital programs such as patient safety, and

the prevention of medication errors. The final competency discussed by the committee was the proper use of informatics in rural health. It was determined that rural health professionals must become comfortable with computer technology and the computerized medical record and decrease the use of paper-based information that is still prominent in rural health.

The issue of competency in health care has been addressed not only on a national level but on a local level as well. At the fall 2005 Louisiana Rural Health Association Quality Improvement Conference, Fuentes, (personal communications, Fall 2005) Quality Improvement Specialist for the Louisiana Health Care Review, addressed the importance of incorporating these core competencies into rural nursing practice. She stated that the rural hospitals that survive will be the ones that address these competencies in providing quality patient care. The rural health environment will see the continued trend toward less specialization and an increase in the expanded use of generalists in the rural health environment. Schools of nursing will be encouraged to establish outreach programs with rural facilities, offer educational experiences in rural communities, and recruit faculty with rural health experience.

The Delphi Technique

The Delphi originated from Greek mythology which introduced the Delphi oracle (Legon, 1994). Delphi was actually a town located in Greece believed by the Greeks to be sacred to the god Apollo. The town consisted of several buildings including a temple which contained a famous oracle or prophet. The priest interpreted sounds made by a female oracle Pythis, as those of Apollo speaking to the Greek people. The Greeks

sought the oracle's advice especially in regards to predicting future events. The oracle was considered extremely influential.

Linstone and Turoff (1975) defined the Delphi as a "method for structuring a group communication process so that the process is effective in allowing a group of individuals as a whole to deal with a complex problem" (p. 13). Time, cost, the inability to have the study participants meet face to face, and the importance of preserving the heterogeneity of the sample to assure valid results are the reasons that the researcher chooses the Delphi. Failure of the Delphi occurs when the researcher imposes personal views on the subject matter to the participants, utilizes poor techniques in summarizing and interpreting the data, fails to explore disagreements among participants on the subject matter, and underestimates the amount of time needed to conduct a proper Delphi study.

Hasson et al. (2000) defined the Delphi as a "flexible group facilitation technique which is an iterative multistage process designed to transform opinion into group consensus" (p.1008). The Delphi is appropriate for problems that lend themselves to group involvement and decision-making. Selecting a panel of experts is often considered a problem with the Delphi because of the varied opinions among researchers as to what actually constitutes an expert. Hasson et al. reported that if an individual is likely to be affected by the results of a Delphi study then they are more likely to participate as a panel member. This can result in bias in reporting. It is important to inform the sample of the purpose of the study, the amount of time participation in the study will involve, and what will happen to the information that is obtained from the study. This helps in building a research relationship with the participants so that participation in the study will continue.

McKenna (1994) defined the Delphi as a multistage process with each round building on the results of the previous round. The first round of the Delphi is expected to contain a large amount of divergent opinions. Through subsequent rounds there is a tendency of the participants to move toward consensus. Disadvantages of the Delphi include seeking experts and avoiding the use of non-experts who may in fact offer a great deal of information on a particular subject. Poor response rates, a lack of accountability that may stem from anonymity that the Delphi emphasizes, and the lack of scientific respectability for the Delphi by some researchers are other disadvantages.

The Delphi can be viewed as a strong experimental means of obtaining information on a subject that had few available answers from a group of individuals who possessed relevant information on the subject (Dalkey 1969). The three main features of the Delphi are anonymity, controlled feedback, and formal group judgment. Anonymity is meant to control the biasing effects which may occur in groups dominated by a few individuals. Controlled feedback occurs as an interchange of ideas among members who are asked to reassess their ideas during subsequent questioning. Formal group judgment is the final set of responses that is expressed in a summative fashion, such as through the measures of central tendency.

The two major types of Delphi identified by Linstone and Turnoff (1975) were the policy Delphi and the real-time Delphi. The policy Delphi is a combination of polling and conferencing that allows a smaller team group to design questionnaires and summarize the results after the questionnaire is administered to a larger group. The real-time Delphi replaces the smaller team group with a computer which is programmed to compile the results of the questionnaires. The aim of the policy Delphi is to generate the

most powerful opposing views possible from a group on a particular subject. The goal is not consensus but to obtain negative and positive viewpoints on a topic in question.

Reid (1989) viewed the Delphi as a means of combining the qualitative and quantitative research approaches. The qualitative approach of the Delphi has a human interest characteristic which makes it credible and acceptable to professionals seeking to gather new information on a subject. The Delphi produces hard data which accounts for its scientific quantitative approach. Reid identified the three main types of Delphi as the numeric, the policy, and the historic. The numeric Delphi deals with summary statistics that are calculated on each round to represent the average response. The policy and the historic Delphi are more qualitative and information gathering. Reid believed the Delphi had many advantages. These included the removal of dominant personalities in achieving consensus, the allowance of more contributions from junior members of a profession, more privacy in decision making, and an increased number of thoughtful responses from the participants. Compared to other research methodologies, the Delphi was less costly and was considered better for research that benefited from a collection of subjective judgments. Reid examined 13 studies that used the Delphi and found that the larger the number of experts on a panel, the higher the dropout rate. She noted that panels with 20 members or less were more likely to retain membership. No specific reasons were given as to why this occurred. She speculated that possibly the panel members from smaller groups may have known each other, therefore were less likely to drop out of the study.

Stitt-Gohdes and Crews (2004) believed that information obtained using the Delphi technique may be unattainable when employing other forms of research methodology.

The Delphi enables the researcher to combine a group of expert opinions into one useful statement and obtain the opinions of many individuals especially when a face-to-face meeting among experts is not possible. Problems occur if the researcher is unable to conceptualize different ways to examine a problem, is too creative in examining the participant's responses, and attempts to complete the Delphi in too hasty of a fashion. Panel selection is the key to a successful Delphi study. In order to ensure participants remain active, they must understand the goal of the study and feel they are important to the success of the study. Participation will be stronger if the researcher can individually invite experts to participate in the study. Anonymity is important in order to remove the common biases and social interactions that occur with face-to-face meetings. These authors believed that 10 to 15 participants is an appropriate number for a focused Delphi study where the participants are similar in background.

The role of the researcher is to serve as a clearinghouse for the sharing and innovation of new ideas, based on a consensus among panel members (Nehiley, 2002). For the researcher, there are limitations to the Delphi method. It is considered a time-consuming methodology involving the management of large amounts of data. The issue of researcher bias is also considered a concern in the interpretation of data. Lastly, the researcher must secure a panel of highly motivated individuals interested in participating in the project who possess the skills to articulate effectively in writing. These individuals must know the aims of the study and understand the research topic thoroughly.

Delphi Methodology

According to Linstone and Turoff (1975), the Delphi undergoes four distinct phases. First of all the participants contribute information to the issue or subject under question.

Second, the group reaches agreement or consensus on the issue. If agreement is not reached then the third phase delineates and evaluates the reasons for the differences of opinion. Lastly, all of the information that has been previously gathered from the participants is analyzed and returned to the participants for consideration. According to these authors three rounds is considered sufficient to produce stability in the responses. The use of subsequent rounds shows very little change in responses.

Powell (2003) viewed the Delphi methodology as a valuable means of organizing group opinion and communication. She also expounded on the value and the scientific merit of the Delphi to nursing research as a means of exploring areas in need of clarification. The Delphi normally consists of three rounds of questionnaires. The first round is normally unstructured, contains open-ended questions, supports open response, and notes issues that need to be addressed in subsequent rounds. In relation to the analysis of findings, content analysis techniques identify the major themes in the first round. The following rounds are more specific and seek to quantify findings through ratings and ranking. The second and third rounds often require the use of ranking and rating techniques and utilize measures of central tendency and the standard deviation. Powell stated that there are two major aspects to a Delphi success. These include the size of the panel and the qualification and experience of the panel of experts. This researcher believes that the Delphi panel of experts is not meant to be representative for statistical purposes but representative of expertise in the field being studied. She went on to stress that the qualities of the panel members are more important than the size of the panel. Individual panel members should exhibit qualifications from varied backgrounds, have extensive knowledge of the problem of study, and have credibility with the target audience. Powell does emphasize that in order to increase the rigor of Delphi research,

the researcher must explicitly explain how the expert panel was selected, describe data collection methods, justify consensus levels, and discuss how the results are disseminated. Encouraging further research to validate findings also increases the credibility of Delphi research.

Beech (1999) outlined the steps to the Delphi methodology which included construction of questionnaires for a minimum of three rounds, achievement of group consensus, and the calculation of summary statistics including the maximum, minimum, and range of scores for each participant response. She viewed the Delphi as an excellent means of obtaining information that would otherwise be difficult or impossible to obtain using other research methodologies.

Hasson et al. (2000) reported that three rounds are normally sufficient for a Delphi. Round one normally begins with open-ended questions, followed by round two which is an analysis of round one, and round three which is an analysis of round two. Data from round one is qualitative in nature and is analyzed using content analysis techniques. For rounds two and three the central tendencies, standard deviation, and interquartile range are the statistical measures that may be used. The administrative skills of the researcher are very important to the success of the Delphi. The researcher must develop a coding system to track respondent's responses on each round, mail reminders to the sample, and analyze any changes of opinion.

Delphi Consensus and Validity

Greatorex and Dexter (2000) examined the consensus stability and agreement convergence between rounds in a Delphi study. Their premise was that the Delphi was utilized as a research methodology by many researchers but there was little information in the literature to report exactly what occurred between rounds in relation to the panel of

experts' behaviors and change in opinions. These researchers reported that it is important to look at consensus between rounds to determine if the group's opinion changed between rounds. The question arises whether panel members change their responses during subsequent rounds to conform to the majority opinion or because of information clarification. If a panel member does respond differently in later rounds, then it may be beneficial to ask the person why their opinion changed. Disadvantages to this complex between-round approach are that it increases the cost and the length of the study. A panelist who drops out can affect the final results of the study. Individuals whose opinions are in the minority may drop out if the researcher did not explore these opinions. Other reasons for drop out include a lack of motivation, panelist disagreement with the study's purpose and content, and a lack of interest or faith in the final results of the study. The decision on the level of consensus is totally subjective on the part of the researcher, therefore the level of consensus normally varies among studies.

Hasson et al. (2000) reported that the Delphi normally uses a purposive or criterion sampling technique instead of a random sampling technique, therefore representativeness of the population is questioned. There is also an issue of reliability with the Delphi because there is no guarantee that the same results would be obtained with another group. Validity is enhanced with the Delphi because of the group decision, as opposed to the individual decision, on a topic. Concurrent validity increased with the use of the successive rounds of questionnaires. As far as consensus is concerned, there is no set level of consensus that should be employed in a Delphi. The level depends on the researcher, the sample, and the problem being studied.

Williams and Webb (1994) believed the Delphi has face validity because the most important issues have been identified by a panel of experts. Concurrent validity is

evident because with consensus the experts have agreed upon the most important answers to the research question. On the other hand, random sampling is not normally utilized, which can affect the overall validity of a study. The researchers stated that consensus should be decided upon prior to the start of the study. In their previous research they used 100% as the level of consensus.

Other researchers addressed the issue of consensus in the Delphi. According to Roberts-Davis and Read (2001), establishing the level of consensus is the most crucial part of the Delphi process. Levels of consensus agreement have been reported in nursing research studies as low as 47% and as high as 100%. Powell (2003) reported that researchers should not omit determining a level of consensus prior to the beginning of the study. Utilizing a percentage to demonstrate consensus is appropriate and should be left to the discretion of the researcher.

Application of the Delphi

Hasson et al. (2000) believed that the Delphi can make a significant contribution to broaden knowledge within the profession of nursing. There are several areas in nursing, particularly in rural nursing, that are in need of study and research. The Delphi can serve as an avenue for exploring these topics.

Love (1997) used the Delphi technique to examine standards for the safe handling of patients. The Delphi allowed this researcher to develop a wide range of handling practices from a consensus of orthopedic nurses. Some of these practices, necessary to ensure fall prevention and patient safety, had not been identified in the literature.

Staggers, Gassert, and Curran (2002) conducted a Delphi study with the purpose of identifying informatics competencies for nurses. The study involved extracting present computer competencies from the literature, listing the most prevalent competencies, and

then utilizing a panel of experts to define the final competency list. The Delphi was appropriate since there was limited information in the literature on nursing informatic competency assessment.

Patrick (2001) utilized the Delphi technique with three rounds to identify the most effective way of identifying clinical competencies for dental hygiene graduates prior to issuing the license to practice. She found the electronic version of the process as the most effective means of gathering and disseminating information.

Butterworth and Bishop (1995) utilized the Delphi methodology to identify characteristics of optimum nursing practice in nursing, midwifery, and health visiting. These researchers used the Delphi because it allowed them to obtain collective information from an expert group without the influence of dominant personalities controlling the outcomes of the group. They believed the Delphi promoted a threat-free environment for individuals to state personal opinions, and allowed each member of the group to be heard in an equal fashion. Two rounds of questionnaires were used because a high measure of agreement was reached after the second questionnaire. The researcher defined a high measure of agreement as the categories falling within the "agree" or "totally agree" elements of the Likert scale. A total of 18 characteristics of optimum nursing practice were identified.

Daly et al. (1996) utilized the Delphi methodology to address the patient care policies important to meeting patient's needs in a critical care unit. These researchers spoke to the appropriateness of the Delphi methodology in forming a consensus and convergence of opinion on research questions and its usefulness in the development of nursing theory. They expounded on the many positive advantages of using the Delphi in this research study. These included expert feedback and assessment on individual contributions to the

research question, an opportunity for the revision of opinions, and the anonymity which allowed individuals to be more forthcoming on certain issues. The expert panel in this study consisted of 29 nurse clinicians. The median was used for descriptive statistical analysis.

Irvine (2004) utilized a Delphi to identify competencies needed by community health nurses to effectively meet health promotion guidelines in caring for patients. The first round consisted of asking the panel of experts to respond to two open-ended questions. From these responses, Irvine devised a Likert-type questionnaire for the second round. Mean and standard deviation scores were obtained on this second round questionnaire and entered on the third round questionnaire. The expert panel was asked to assign a score to each of the items on the questionnaire. Mean scores measured the group opinion of an item, with the level of consensus set at a mean of 4.0 or above on the Likert scale. The standard deviation measured the amount of agreement within the panel of the item, and the level of consensus was set at a standard deviation of 1.2. The major themes in identifying competencies were knowledge, attitude, and skills. Under each of these major themes or categories competencies were placed under the cognitive, affective, and psychomotor domains.

Thompson, Repko, and Staggers (2003) utilized a Delphi to validate competencies required by military nurses in mobilized environments. The panel consisted of 109 nurses who responded to an Internet-based questionnaire. The panel was asked to evaluate a list of competencies by ranking the importance of the competency to the mobilized hospital and whether the competency should be placed in the novice, intermediate, or expert categories. Eighty percent was the predetermined level of consensus. Two different types of competency statements were validated. The level of

consensus was 83% on the importance of the mobilization competency and 67% on the specific level of practice competency statements.

Hennessy and Hicks (2003) used the Delphi to identify ideal attributes of nurses in leadership positions in European countries. These researchers believed the Delphi was appropriate due to the lack of information or empirical data available on the subject. In this particular study the expert panel consisted of 15 members. This study did not define a consensus but instead used a quantitative measure of agreement in the second round. Using the Kendall's Tau, if a significant level of agreement was obtained in the 2nd round, the study would end. If not, the process would be repeated until a level of agreement occurred. The Kendall's Tau assessed the degree of agreement within the overall sample and within each country of the most important attributes of nurse leaders. Level of agreement was reached in the 2nd round with the top five attributes listed as good communication skills, promotion of nursing, strategic thinking, professional credibility, and leadership.

Bell et al. (1997) utilized the Delphi to identify educational and research priorities of rural nurses in Australia. The participants of the study participated in three rounds of questionnaires. Results revealed that the delivery of accessible quality health care is a major issue affecting rural communities. These researchers concluded that in order to ensure delivery of quality care, provisions must be made by rural institutions to ensure nurses maintain their nursing skills and competence.

Roberts-Davis and Read (2001) used the Delphi as a means of clarifying clinical role differences and similarities between nurse practitioners and clinical nurse specialists. They utilized self-selection in obtaining a sample which according to the authors enhanced motivation by the participants to complete the study. A Likert scale was used,

and space was provided on the scale for comments by the participants. Prior to analysis of the questionnaire the researchers decided upon 60% as the level of consensus but changed the consensus level to 80% following analysis of the questionnaire.

CHAPTER 3

PROCEDURE AND METHODOLOGY

The primary purpose of this study was to identify nursing competencies needed by nurses employed in rural health care settings. The research objective was accomplished utilizing a Delphi panel of rural nursing experts. The Delphi technique employs a structured group communication for the purposes of developing a consensus of opinion regarding a selected topic in question (Linstone & Turoff, 1975). This multistage approach uses a group facilitation technique involving the transformation of opinion to consensus (Hasson et al., 2000).

This chapter will describe the population and sample, instrument construction, and the methodology procedure. In addition, data collection and data analysis techniques will be presented. The approval for conducting this research was obtained from the Louisiana State University Institutional Review Board (IRB #3331).

Population and Sample

The target population for this study consisted of registered nurses who hire, supervise, or manage nurses in Critical Access Hospitals. These registered nurses were subsequently referred to as "experts" in the rural hospital environment. Unlike survey research, the researcher using the Delphi method carefully selects individuals who have knowledge and expertise in this particular field of study (Dalkey, 1969). The sampling plan for the study included the following steps:

1. A listing, including electronic mail addresses, of Directors of Nursing in Critical Access Hospitals was obtained through the Louisiana Rural Health Association.
2. All of the potential panel members were defined as the frame of the target population.

3. The panel was selected on a purposive basis. The criteria for the selection of the panel members included the number of potential panel members received and the willingness of the potential panel member to participate in the three rounds of the Delphi study.

According to Linstone and Turoff (1975), the size of the panel can be variable, but with a homogenous group, a panel number of 10-15 individuals can offer excellent results. Nehiley (2002) considered that 30-50 individuals are the appropriate number of members for the final panel. Ludwig (1997) stated the majority of Delphi panels use 15-20 respondents which may prevent the summation process from becoming too cumbersome. A total of 20 to 30 participants were deemed representative of a typical Delphi panel based on the writings of Dalkey (1969). Powell (2003) believed that the Delphi technique calls for the researcher to select expert panelists on the basis of quality and not quantity. Seven panelists participated in this research study.

Panel Selection

The criteria for the selection of the panel members included the number of potential panel members received and the willingness of the potential panel member to participate in the three rounds of the Delphi study. A listing of names and e-mail addresses of 27 potential panel members was obtained. Each potential panelist was sent a letter of introduction on June 1, 2006 via electronic mail (Appendix A). This invitation to participate explained the expectations and importance of the study. The anticipated amount of time and effort expected from each panel member was also included in the introductory information. Finally, potential panelists were asked to respond by e-mail their willingness to participate in the study. Eight Directors of Nursing responded via electronic mail within two days agreeing to participate in the

study. Five days later, on June 6, 2006, the remaining 19 potential panelists were contacted via phone.

Nine of the 19 Directors of Nursing verbally agreed during telephone contact to participate in the study. Four of these nurses who agreed to participate had not received the letter of introduction due to changes in e-mail addresses. Eight nurses believed that they did not have the time to devote to this study and declined participation. Another nurse had recently returned to work after having experienced a personal family trauma and also declined participation. The Director of Nursing at one institution stated that employee participation in research studies had to be approved by the hospital's governing board. At this time a copy of the research proposal was e-mailed to this particular nurse so that she could explain the research proposal to the hospital board. This Director of Nursing responded three days later on June 9, 2006, via electronic mail declining participation in the study stating that obtaining hospital board permission would require too much time and energy.

The Round One Letter of Instruction (Appendix B) and the Round One Instrument (Appendix C) was submitted to the panel on June 11, 2006. By June 15, seven participants had responded to first round of questions. A friendly reminder (Appendix D) was sent to the 12 non-respondents on June 16, 2006. No responses were received from this friendly reminder. In a phone conversation with Dorie Tschudy, Critical Access Hospital Program Coordinator, regarding upcoming educational program for rural hospitals, she inquired as to the progress of this research on competencies. She was informed of the difficulty in getting Directors of Nursing to respond to the survey questions. On June 28, 2006, Ms. Tschudy, e-mailed all Directors of Nursing employed in Louisiana Critical Access Hospitals asking them to participate in this vital research

(Appendix E). On June 30, 2006 phone calls were made to the 12 Directors of Nursing who had not responded to the first round. Also a second friendly reminder was sent to the nonrespondents (Appendix F). Two of the Directors were on vacation, two verbally agreed to participate, and eight declined to participate due to a lack of time and strenuous workloads at their hospitals.

Due to personal family illness this study was postponed for the month of July. On July 31 an e-mail explaining the delay in the study was sent to the nine who had agreed to participate and the two who when contacted previously had been on vacation (Appendix G). Of these 11 Directors of Nursing, the original seven who had already responded to the first survey called or responded by e-mail that they were awaiting the second round. Telephone calls were made to the other four to verify continued participation in the study. These four Directors of Nursing declined participation in the study citing lack of staff and staff turnover issues. The final number of panel participants was seven. Dalkey and Helmer (1963) utilized an expert panel of seven in their original Delphi experiment. According to Akins, Tolson, and Cole (2005) there is actually no clear identification of what constitutes a sufficient number of expert panel members in a Delphi. These researchers found that good results can be obtained from a small Delphi panel as long as the group is knowledgeable and homogenous.

Instrumentation

Round One Instrument

This Delphi study consisted of three rounds of consensus building. The initial Round One survey instrument consisted of two open-ended, probing questions regarding the identification of competencies unique to rural health nursing. The focus questions and instructions for Round One were provided in the Round One Letter of Instruction

(Appendix B) and Round One Instrument (Appendix C). The focus questions for this study were:

"What are the job skills/competencies needed by nurses employed in rural Critical Access Hospitals?"

"Please indicate whether the competency is considered: a) a clinical/technical skill; b) a critical thinking skill; c) a communication/interpersonal skill; or d) a management/organizational skill?"

The panelists were asked to identify rural nurse competencies and then place the competencies in categories. The researcher identified these four major categories from the review of literature and from personal clinical and managerial experiences. This type of categorization served as a means of clarifying and organizing the competencies.

Round Two Instrument

The information from the Round One survey was reviewed, and assessed for uniqueness and similarities. Job competencies that were similar were combined for clarity and conciseness (Delaney, 2004). The Round Two Letter of Instruction (Appendix I) delineating the method of completing the Round Two Instrument and the Round Two Instrument (Appendix J) was e-mailed to the panelists. A text box was provided for comments. The participants rated the job skills/competencies on the Round Two Instrument utilizing an anchored scale by typing in the level of importance in column provided. Linstone and Turoff (1975) strongly advocated the use of an interval scale in a Delphi. According to these researchers this is the only means of determining not only which items are considered most important, but the degree to which one item is preferred over the other. The anchored scale was interpreted in the following manner:

5.00 - 4.50 = High importance

4.49 – 3.50 = Substantial importance

3.49 – 2.50 = Moderate importance

2.49 – 1.50 = Low importance

1.49 - 1.00 = No importance

Round Three Instrument

Round Three completed this Delphi study. A letter of instruction for Round Three Appendix L) and the Round Three Instrument (Appendix M) were sent to the panelists. The third survey was unique for each panelist, providing them with the group median and their own unique score of each competency.

Data Collection

Electronic mail was the medium utilized for data collection. Each panelist received instructions along with the instrument for each round of the survey process. For the first round the panelists listed the competencies under each heading. The researcher received this qualitative data and compiled the second instrument. For the second and third rounds, the participant typed in their responses in the appropriate columns.

Round One Data Collection

On June 11, 2006 the first round was submitted to 19 Directors of Nursing. The panelists received a Round One Letter of Instruction (Appendix B) and Round One Instrument (Appendix C) via electronic mail transmission. Each panel member was asked to complete the Round One Instrument and respond with the results within five working days. Seven panelists responded by June 15, 2006 to this first round. A friendly reminder was e-mailed to the 12 non-respondents on June 16, 2006 (Appendix D). Dorie Tschudy, Critical Access Hospital Program Coordinator emailed all Directors of Nursing encouraging them to participate in this important research (Appendix E). Phone calls

were made to the 12 non-respondents on June 30, 2006 and a second friendly reminder was emailed to the Directors of Nursing (Appendix F). Two of the non-respondents were on vacation, two verbally agreed to participate, and two declined to participate in the study. Data collection was postponed the month of July due to an illness in this researcher's family. On July 31 an e-mail was transmitted to the nine who had agreed to participate and the two that were on vacation when contact was made previously, explaining the reason for the studies' delay (Appendix G). Of these 11 Directors of Nursing, the original seven communicated continued commitment to this research either by phone or e-mail. The remaining four Directors of Nursing declined to participate in the study, citing work issues. Data received from seven panelists was used to construct the Round Two Instrument.

Round Two Data Collection

On August 5, 2006 Round Two instrument construction began. In August 2006, there was again a delay in compilation of the data for Round Two due to personal family illness. An email was sent to the seven panelists on August 15 explaining the reason for the delay in receiving the second round (Appendix H). During the month of August as time permitted, the information from the Round One survey was reviewed, assessed, and similar information combined. Job competencies that were similar were combined for preciseness and conciseness (Delaney, 2004). On September 5, 2006, the Round Two Letter of Instruction (Appendix I) delineating the method of completing the Round Two Instrument and the Round Two Instrument (Appendix J) was emailed to the panelists. A text box was provided for comments. The participants rated the job skills/competencies on the Round Two Instrument utilizing an anchored scale by typing in the level of importance in column provided.

Five of the seven panelists returned the completed survey within five working days. On September 11, 2006 a friendly reminder (Appendix K) was sent to the remaining two panelists. These panelists responded by September 13, 2006.

Round Three Data Collection

Round Three completed this Delphi study. A letter of instruction for Round Three (Appendix L) and the Round Three Instrument (Appendix M) were sent to the panelists on October 2, 2006. The panelists were directed to address those competencies with an asterisk utilizing the same scale as in Round Two. The lack of an asterisk next to the competency indicated group consensus. For further clarification, the panel member was instructed that if their rating was (±1) of the group median, then this rating was considered to be in agreement or consensus with the group. Adjustments did not need to be made to these competencies unless the panel member wished to change the rating. If the panel member chose to remain with their Round Two rating decision then they were asked to indicate the reason why they believed the Round Two rating was more appropriate. By October 12, the researcher had received the Round Three Instrument results. The researcher assembled this information and proceeded with the summation process.

Data Analysis

Round One Data Analysis

The first round constituted responses from the first survey which was used to compile a list of unique competencies. Careful consideration was taken to categorize similar competencies, but not delete important information based on the panelist's opinion. According to Hasson et al. (2000), first round information uses a qualitative approach to cluster similar items with only minor editing of the participant's wording by the

researcher. One hundred and forty-nine competencies were received from the panelists. Similar competencies were combined after careful scrutiny. A total of 101 competencies were used to construct the Round Two Instrument. Twenty-three items were listed under the Clinical/Technical heading, while 25 competencies were identified as Critical Thinking skills. The Communication/ Interpersonal skill heading included 27 competencies and the Management/Organization skill category contained 26 items.

Round Two Data Analysis

The second group of responses or Second Round was analyzed utilizing the descriptive statistics of group median, mean, and standard deviation. Rural nursing competency items were ranked by descending mean scores from the highest importance to the lowest importance. In ranking the information, tied mean scores were ranked by ascending standard deviation scores. According to Elzey (1974), the smaller the standard deviation of a distribution, the less variability of the data. In other words, a smaller standard deviation indicated more agreement on a particular item. The Round Two summary data was used to develop the Round Three Instrument.

Round Three Data Analysis

The summation data obtained from Round Two was used to develop the Round Three Instrument. The data analysis format utilized in Round Two, including the calculation of the mean, median, and standard deviation, was duplicated for the Round Three of the data analysis. In addition the level of consensus for each item was obtained. The level of consensus was obtaining by dividing the number of panelists who were within ± 1 of the median by the total number in the panel (Delany 2004, Gaspard 1992). The level of consensus was 51% agreement of the Delphi panel members within one point of the median on the five-point anchored Likert scale

The competencies were ranked from highest to lowest according to group mean. If there was a tie, then the competency with the lowest standard deviation was ranked first (Delany 2004, Gaspard 1992). The items were then ranked by ascending standard deviation scores. Panel agreement on the competency increased as the standard deviation increased. The level of consensus was used to break the tie if the means and standard deviations were tied.

CHAPTER 4

RESULTS

The purpose of this research was to identify the nursing competencies most associated with good nursing practice in Critical Access Hospitals as perceived by a Delphi panel of rural health nursing experts. This research objective was accomplished utilizing a panel of rural health nurse experts to identify and rate rural nurse competencies through three rounds of a Delphi survey.

Results of Round One Delphi Panel Survey

The Round One Letter of Instruction (Appendix B) and Round One Instrument (Appendix C) were emailed to 19 potential panel members on June 11, 2006. Seven panelists responded by June 15, 2006. Two friendly reminders (Appendices D and F) were sent on June 16, and June 30, and one telephone reminder conducted on June 30. During this period of time, eight Directors of Nursing declined to participate, two agreed to participate, and two were not available due to vacation. Due to unforeseen personal circumstances, data collection was postponed for 30 days. On July 31 an email was sent to a total of 11 Directors of Nursing explaining the reason for the delay in the study (Appendix C). Four of these declined to participate due to work and personal time constraints. The Round One Delphi panel consisted of seven members. The total time frame for Round One data collection inclusive of the period of postponement was seven weeks.

The Round One instrument was divided into four competency headings which included Clinical/Technical Skill, Critical Thinking Skill, Communication/Interpersonal Skill, and Management/Organizational Skill. The seven panelists submitted a total of

149 items. The items were critiqued for repetitiveness and similar competencies were consolidated. However, if an item appeared similar but contained unique information, the items were maintained separately. A total of 101 items were extracted from the original items submitted.

Round One Clinical/Technical Competencies

The unique rural clinical/technical nursing competencies identified by the Delphi Panel and extracted from the 42 original items are delineated in Table 1. A total of 23 items were contained in this category. The items were listed according to order in which they were received.

Table 1. Clinical/Technical Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round One Delphi Survey.

	Clinical/Technical Competency
1	Possesses the ability to perform a physical assessment on patients of all ages.
2	Completes a nursing assessment within an established timeframe of admission to serve as a guide for the implementation of the patient's care plan.
3	Knowledgeable of emergency procedures in all areas of the hospital, not only those that present to the Emergency Department.
4	Able to perform basic nursing procedures/treatments appropriate to the patient's diagnosis and age group.
5	Knowledgeable of medications action and side effects.
6	Knowledgeable of medication administration guidelines for all age groups.
7	Implements the nursing process to provide quality care based on assessment, diagnosis, planning, intervention, and evaluation.
8	The nursing diagnosis is derived from the patient's health status data.
9	Applies the nursing diagnosis and institutes monitoring nursing interventions to improve patient outcomes.
10	Completes and continually updates the patient care plan according to the changing patient needs.
11	Evaluates patient responses to nursing interventions and communicates responses through legible documentation and reporting.
12	Data collection related to the health status of the patient is systematic and continuous.
13	Goals for nursing care are formulated and stated in terms of observable outcomes.
14	The patient's plan of care is continually evaluated.
15	The patient's response is compared with observable outcomes, which are specified in the care plan goals.

(Table cont.)

16	Reassessment, recording of priorities, new goal setting, and revision of the care plan is a continuous process.
17	Performs nursing procedures based on the standards of care, hospital policies, and medical and nursing protocols.
18	Possesses a working knowledge and the ability to perform/initiate respiratory therapy and phlebotomy measures so as not to delay patient care and treatment while on-call services are being activated.
19	Possesses the knowledge and ability to perform triage/emergency clinical nursing assessments on individuals of all ages.
20	Is ACLS and PALS certified.
21	For emergency department purposes, is TNC certified.
22	Able to operate equipment utilized in patient care such as infusion pumps, suction apparatus, lifters, telemetry monitors, and defibrillators.
23	Knowledgeable of basic dysrhythmia recognition.

Round One Critical Thinking Competencies

The unique rural critical thinking nursing competencies submitted by the Delphi Panel are delineated in Table 2. A total of 35 items were identified for this category and consolidated to 25 items. The items were listed according to order in which they were received.

Table 2. Critical Thinking Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round One Delphi Survey

	Critical Thinking Competencies
1	Possesses the ability to care for a highly varied group of patients with different diagnoses all located in one clinical area.
2	Able to successfully delegate lower level of care activities.
3	Able to meet the needs of patients utilizing limited resources.
4	Possesses the ability to recognize any changes in a patient's condition and provide the most appropriate care at any given time.
5	Able to perform an assessment that collects in-depth information about a patient's situation and functioning and then develop a plan of care based on this assessment.
6	Identifies specific goals, objectives, and actions designed to meet the patient's needs.
7	Executes specific patient care activities and/or interventions that will lead to accomplishing the goals set forth in the care plan.
8	Coordinates, organizes, secures, integrates, and modifies the resources necessary to accomplish the goals set forth in the care plan.
9	Monitors the results of care provided in order to determine the care plan's effectiveness.

(Table cont.)

10	Evaluates the care plan at appropriate intervals to determine the plan's effectiveness in reaching desired outcomes and goals.
11	Applies cognitive, technical, and interpersonal skills in the overall coordination of patient care.
12	Ensures the use of good judgment in clinical decision-making.
13	Appropriately delegates and prioritizes patient care activities, and implements the nursing process to ensure that each patient is provided quality patient care.
14	Follows organizational policies/plans/procedures for safety, security, hazardous materials and waste, emergency preparedness, fire/life safety, medical equipment management, utility system management, and infection control.
15	Able to successfully manage the patient's medication regimen.
16	Utilizes broad pharmaceutical knowledge related to the prevention of drug interactions, and medication errors.
17	Demonstrates initiative in providing patient emergent or non-emergent care within the scope of nursing practice.
18	Must have a clear understanding of all disease processes and individualize these processes in planning patient care (i.e. wound care, fall prevention).
19	Possesses the ability to recognize and respond to emergency situations occurring in all age groups.
20	Knowledgeable regarding the discharge process of patients with special needs i.e. Home Health, Hospice, Nursing Home, patients requiring medical equipment at home, mental health issues, etc.
21	Maintains clinical skills necessary to provide safe, effective nursing care without the availability of pharmacy or respiratory therapy 24 hours a day.
22	Knowledgeable in regards to intravenous therapy and the maintenance of peripheral and central venous catheters. (i.e. the delivery of IV drugs, drips, blood and blood products).
23	Knowledgeable of Safety, Risk Management, Infection Control, and Emergency Preparedness procedures.
24	Demonstrates the ability to work with minimum supervisory guidance in exercising independent judgment.
25	Analyzes problems and suggests appropriate solutions, taking action within the limits of authority.

Round One Communication/Interpersonal Competencies

The unique rural communication/interpersonal nursing competencies identified by the Delphi Panel are delineated in Table 3. A total of 33 items were received in this category and consolidated to 27. The items were listed according to order in which they were received.

Table 3. Communication/ Interpersonal Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round One Delphi Survey Communication/Interpersonal Skills

	Communication/ Interpersonal Competencies
1	Possesses the ability to verbally communicate in an unbiased manner with individuals from all socioeconomic and educational backgrounds.
2	Possesses the ability to communicate clearly and effectively with other members of the hospital team.
3	Possesses the ability to communicate effectively with nurses from other health care institutions that do not appreciate the role of the rural nurse
4	Able to communicate with other health care providers in order to coordinate care after the hospital stay.
5	Knowledgeable of proper documentation guidelines
6	Strives for excellence, demonstrates high performance in all endeavors.
7	Maintains high personal and professional standards.
8	Makes a positive first impression a personal priority, and is honest.
9	Exhibits a customer-focused attitude toward others
10	Demonstrates positive interpersonal communication skills and projects a positive attitude.
11	Exhibits a professional image, good work ethics and serves as a positive role model to staff.
12	Fosters a team-focused, interdisciplinary approach to all patient care activities.
13	Gains the patient's confidence with professional considerate nursing care.
14	Refers to age-specific competencies when teaching the patient and family.
15	Demonstrates knowledge of Information Management requirements specific to the department and the hospital.
16	Maintains confidentiality of patient, physician and employee information in accordance with standards established by the hospital in compliance with regulatory agency requirements i.e., HIPAA regulations.
17	Adheres to regulatory agency documentation requirements.
18	Utilizes resources available to communicate with hearing/sight impaired individuals.
19	Demonstrates compassion and respect for the staff, patient and patient's family.
20	Is a patient advocate regardless of the patient's age, culture, or religious background.
21	Acts as a liaison between the patient and physician, and other hospital departments.
22	Accepts phone and verbal orders appropriately, transcribing and implementing orders correctly and in a timely manner.
23	Clarifies unclear, illegible, or non-specific physician orders prior to implementation.
24	Uses good listening skills, and communicates in an open and responsible, professional manner.
25	Develops, initiates, and participates in the process of patient education, discharge instructions, and preparation of the patient/significant other for discharge or transfer.

(Table cont.)

26	Cooperates with staff to achieve department goals and promote good employee relations, interdepartmental relations and public relations.
27	Consistently demonstrates interest, caring and consideration in dealing with the patients, significant others, and co-workers.

Round One Management/Organizational Competencies

The unique rural management/organizational nursing competencies identified by the Delphi Panel are delineated in Table 4. A total of 39 items were received for this category and consolidated to 26. The items were listed according to order in which they were received.

Table 4. Management/Organizational Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round One Delphi Survey

	Management/Organizational Competencies
1	Demonstrates flexibility and organizational skills in rapidly changing situations.
2	Possesses the ability to manage the care of patients being cared for by different physicians.
3	Possesses the ability to organize the patient care load utilizing the sometimes limited available staff.
4	Possesses the ability to manage ancillary departmental problems after routine office hours.
5	Demonstrates proper time management skills in order to complete tasks in a timely manner.
6	Effectively utilizes certain key skills, including communication, critical thinking, negotiation, collaboration, as well as patient advocacy and empowerment.
7	Coordinates the individual patients' needs within the context of all outside influences, including the health care delivery system, the community, and the payer source
8	Functions as an integral member of the hospital's leadership team.
9	Ensures a high quality of patient care through appropriate human and material resource allocation.
10	Ensures effective and efficient utilization of all hospital resources, human and material
11	Assists in the promotion and maintenance of high quality care through the analysis, review, and evaluation of clinical practice.
12	Ensures that the services delivered to patients are medically necessary and are appropriate for the diagnosis, condition, or medical problem
13	Considers under-utilization as well as over-utilization of resources in the evaluation of patient care.

(Table cont.)

14	Demonstrates the ability and flexibility to recognize and accept changing conditions while continuing to perform to the best of one's ability.
15	Strives to promote a positive attitude with the team and accepts additional assignments willingly
16	Delegates needs/tasks appropriately
17	Knowledgeable of the facilities' organizational structure, including policies and procedures.
18	Demonstrates the ability to function under pressure during a disaster maintaining a calm, controlled demeanor.
19	Makes clinical assignments based on the patient's needs and circumstances.
20	Able to work independently of senior staff.
21	Aware of professional and personal limitations and how to access assistance when Needed.
22	Possesses the ability to rapidly shift from one patient care area to another (i.e. Operating Room to Emergency Department).
23	Demonstrates the ability to multi-task.
24	Demonstrates initiative by active participation in staff meetings, committees, and projects.
25	Participates in the problem-solving process associated with Quality Improvement.
26	Adapts easily to changes in work assignments and environment and is willing to assume additional responsibility and learn new procedures

Results of Round Two Delphi Panel Survey

On September 5, 2006, the Round Two Letter of Instruction (Appendix I) delineating the method of completing the Round Two Instrument (Appendix J) and the Round Two Instrument were e-mailed to the panelists. A text box was provided for comments. The participants rated the job skills/competencies on the Round Two Instrument utilizing an anchored scale by typing in the level of importance in the column provided. The participants, given their roles and responsibilities as Directors of Nursing, would have added any additional items deemed necessary during the round. Five of the seven panelists returned the completed survey within five working days. On September 11, 2006 a friendly reminder (Appendix K) was sent to the remaining two panelists. These panelists responded by September 13, 2006. The time frame for collection of the Round Two data was eight days.

The participants rated the job skills/competencies on the Round Two Instrument utilizing an anchored scale by typing in the level of importance in column provided. The anchored scale was interpreted in the following manner:

5.00 - 4.50 = High importance

4.49 – 3.50 = Substantial importance

3.49 – 2.50 = Moderate importance

2.49 – 1.50 = Low importance

1.49 - 1.00 = No importance

The second group of responses or Second Round was analyzed utilizing the descriptive statistics of group median, mean, and standard deviation. Rural nursing competency items were ranked by descending mean scores from highest importance to lowest importance. In ranking the information, tied mean scores were ranked by ascending standard deviation scores. A smaller standard deviation indicated more agreement on a particular item.

Round Two Clinical/Technical Competency Ratings

The 23 clinical/technical competencies ratings were interpreted as follows: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Six competencies were rated as highest with a mean rating of 5.00 (SD=0), which placed these in the category of "high importance" (Table 5). These six were rated the same by all seven panelists. The competencies included "possesses the ability to perform a physical assessment on patients of all ages," "knowledge of emergency procedures in all areas of the hospital," "able to perform basic nursing procedure/treatments," "possesses the knowledge to perform triage/emergency clinical nursing assessments,"

"able to operate equipment utilized in patient care," and "knowledge of basic dysrhythmia recognition." The lowest ranked item was "for emergency department, is TNC certified" which had a mean rating of 4.00 (SD=1.15). Although this was the lowest rated item it was still considered in the "substantial importance" category. A total of 13 items were rated as "high importance" (5.00-4.50), while the remaining 10 items were considered of "substantial importance" (4.49-3.50). No items were rated as "moderate importance," "low importance," or "no importance."

Table 5. Importance of Clinical/Technical Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round Two Delphi Survey

Rank	Clinical/Technical Competency	Med[a]	X[b]	SD
1	Possesses the ability to perform a physical assessment on patients of all ages.	5	5.00	0
2	Knowledgeable of emergency procedures in all areas of the hospital, not only those that present to the Emergency Department.	5	5.00	0
3	Able to perform basic nursing procedures/treatments appropriate to the patient's diagnosis and age group.	5	5.00	0
4	Possesses the knowledge and ability to perform triage/emergency clinical nursing assessments on individuals of all ages.	5	5.00	0
5	Able to operate equipment utilized in patient care such as infusion pumps, suction apparatus, lifters, telemetry monitors, and defibrillators.	5	5.00	0
6	Knowledgeable of basic dysrhythmia recognition.	5	5.00	0
7	Performs nursing procedures based on the standards of care, hospital policies, and medical and nursing protocols.	5	4.86	.38
8	Possesses a working knowledge and the ability to perform/initiate respiratory therapy and phlebotomy measures so as not to delay patient care and treatment while on call services are being activated.	5	4.86	.38

(Table cont.)

9	Completes a nursing assessment within an established timeframe of admission to serve as a guide for the implementation of the patient's care plan.	5	4.71	.49
10	Knowledgeable of medications action and side effects.	5	4.57	.53
11	Applies the nursing diagnosis and institutes monitoring nursing interventions to improve patient outcomes.	5	4.57	.53
12	Is ACLS and PALS certified.	5	4.57	.53
13	Evaluates patient responses to nursing interventions and communicates responses through legible documentation and reporting.	5	4.57	.79
14	Knowledgeable of medication administration guidelines for all age groups.	4	4.49	.53
15	Implements the nursing process to provide quality care based on assessment, diagnosis, planning, intervention, and evaluation.	4	4.43	.53
16	Completes and continually updates the patient care plan according to the changing patient needs.	5	4.43	.79
17	Data collection related to the health status of the patient is systematic and continuous.	4	4.29	.49
18	Goals for nursing care are formulated and stated in terms of observable outcomes.	4	4.29	.49
19	The patient's plan of care is continually evaluated.	4	4.29	.49
20	Reassessment, recording of priorities, new goal setting, and revision of the care plan is a continuous process.	4	4.29	.49
21	The patient's response is compared with observable outcomes, which are specified in the care plan goals.	4	4.14	.69
22	The nursing diagnosis is derived from the patient's health status data.	4	4.00	.82
23	For emergency department purposes, is TNC certified.	4	4.00	1.15

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[a]Median ratings indicated by Delphi panelists

[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Round Two Critical Thinking Competency Ratings

The 25 critical thinking competencies ratings were interpreted as follows: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Five competencies were rated as highest with a mean rating of 5.00 (SD=0), which placed these in the category of "high importance" (Table 6). These five were rated equally the same by all seven panelists. These competencies included "the ability to care for a highly varied group of patients," "the ability to recognize any changes in the patient's condition," "the use of good judgment in clinical decision making," " recognize and respond to emergency situations," and "intravenous therapy and the maintenance of peripheral and central venous catheters." The lowest ranked item was "discharge patients with special needs" which had a mean rating of 4.00 (SD=.82). Although this was the lowest rated item it was still considered in the "substantial importance" category. A total of 15 items were ranked as "high importance" (5.00-4.50), while the remaining 11 items were considered of "substantial importance" (4.49-3.50). No items were rated as "moderate importance," "low importance," or "no importance."

Table 6. Importance of Critical Thinking Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round Two Delphi Survey

Rank	Critical Thinking Competency	Med[a]	X[b]	SD
1	Possesses the ability to care for a highly varied group of patients with different diagnoses all located in one clinical area.	5	5.00	0
2	Possesses the ability to recognize any changes in a patient's condition and provide the most appropriate care at any given time.	5	5.00	0

(Table cont.)

3	Ensures the use of good judgment in clinical decision making.	5	5.00	0
4	Possesses the ability to recognize and respond to emergency situations occurring in all age groups.	5	5.00	0
5	Knowledgeable in regards to intravenous therapy and the maintenance of peripheral and central venous catheters. (i.e. the delivery of IV drugs, drips, blood and blood products).	5	5.00	0
6	Able to meet the needs of patients utilizing limited resources.	5	4.86	.38
7	Demonstrates initiative in providing patient emergent or non-emergent care within the scope of nursing practice.	5	4.86	.38
8	Must have a clear understanding of all disease processes and individualize these processes in planning patient care (i.e. wound care, fall prevention).	5	4.86	.38
9	Demonstrates the ability to work with minimum supervisory guidance in exercising independent judgment.	5	4.71	.49
10	Appropriately delegates and prioritizes patient care activities, and implements the nursing process to ensure that each patient is provided quality patient care.	5	4.57	.53
11	Able to successfully manage the patient's medication regimen.	5	4.57	.53
12	Utilizes broad pharmaceutical knowledge related to the prevention of drug interactions, and medication errors.	5	4.57	.53
13	Maintains clinical skills necessary to provide safe, effective nursing care without the availability of pharmacy or respiratory therapy 24 hours a day.	5	4.57	.53
14	Follows organizational policies/plans/procedures for safety, security, hazardous materials and waste, emergency preparedness, fire/life safety, medical equipment management, utility system management, and infection control.	5	4.57	.79
15	Identifies specific goals, objectives, and actions designed to meet the patient's needs.	4	4.43	.53
16	Executes specific patient care activities and/or interventions that will lead to accomplishing the goals set forth in the care plan.	4	4.43	.53
17	Applies cognitive, technical, and interpersonal skills in the overall coordination of patient care.	5	4.43	.79

(Table cont.)

18	Knowledgeable of Safety, Risk Management, Infection Control, and Emergency Preparedness procedures.	5	4.43	.79
19	Able to perform an assessment that collects in depth information about a patient's situation and functioning and then develop a plan of care based on this assessment.	4	4.29	.49
20	Analyzes problems and suggests appropriate solutions, taking action within the limits of authority.	4	4.29	.49
21	Able to successfully delegate lower level of care activities.	4	4.29	.76
22	Coordinates, organizes, secures, integrates, and modifies the resources necessary to accomplish the goals set forth in the care plan.	4	4.29	.76
23	Monitors the results of care provided in order to determine the care plan's effectiveness.	4	4.29	.76
24	Evaluates the care plan at appropriate intervals to determine the plan's effectiveness in reaching desired outcomes and goals.	4	4.14	.69
25	Knowledgeable regarding the discharge process of patients with special needs i.e. Home Health, Hospice, Nursing Home, patients requiring medical equipment at home, mental health issues, etc.	4	4.00	.82

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[a]Median ratings indicated by Delphi panelists

[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Round Two Communication/Interpersonal Competency Ratings

The 27 communication/interpersonal competencies ratings were interpreted as follows: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Nine competencies were rated as highest with a mean rating of 5.00 (SD=0), which placed these in the category of "high importance" (Table7). These nine were rated equally the same by all seven panelists. These competencies included "communicate

clearly and effectively," "high personal and professional standards," "professional image, good work ethics and positive role model," "patient's confidence with professional care," "age specific competencies when teaching," "confidentiality of patient, physician, and employee information," " regulatory documentation requirements," "compassion and respect for staff, patient, and family," and "unclear, illegible, or non-specific physician orders." The lowest ranked item was "communicate with other health providers" which had a mean rating of 4.29 (SD=.49). Although this was the lowest rated item it was still considered in the "substantial importance" category. A total of 22 items were rated as "high importance" (5.00-4.50), while the remaining five items were considered of "substantial importance" (4.49-3.50). No items were rated as "moderate importance," "low importance," or "no importance."

Table 7. Importance of Communication/Interpersonal Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round Two Delphi Survey

Rank	Communication/Interpersonal Competency	Med[a]	X[b]	SD
1	Possesses the ability to communicate clearly and effectively with other members of the hospital team.	5	5.00	0
2	Maintains high personal and professional standards.	5	5.00	0
3	Exhibits a professional image, good work ethics and serves as a positive role model to staff.	5	5.00	0
4	Gains the patient's confidence with professional considerate nursing care.	5	5.00	0
5	Refers to age-specific competencies when teaching the patient and family.	5	5.00	0
6	Maintains confidentiality of patient, physician and employee information in accordance with standards established by the hospital in compliance with regulatory agency requirements i.e., HIPAA regulations.	5	5.00	0
7	Adheres to regulatory agency documentation requirements.	5	5.00	0

(Table cont.)

8	Demonstrates compassion and respect for the staff, patient and patient's family.	5	5.00	0
9	Clarifies unclear, illegible, or non-specific physician orders prior to implementation.	5	5.00	0
10	Knowledgeable of proper documentation guidelines	5	4.86	.38
11	Makes a positive first impression a personal priority, and is honest.	5	4.86	.38
12	Demonstrates positive interpersonal communication skills and projects a positive attitude.	5	4.86	.38
13	Accepts phone and verbal orders appropriately, transcribing and implementing orders correctly and in a timely manner.	5	4.86	.38
14	Strives for excellence, demonstrates high performance in all endeavors.	5	4.71	.49
15	Exhibits a customer-focused attitude toward others	5	4.71	.49
16	Fosters a team-focused, interdisciplinary approach to all patient care activities.	5	4.71	.49
17	Utilizes resources available to communicate with hearing/sight impaired individuals.	5	4.71	.49
18	Is a patient advocate regardless of the patient's age, culture, or religious background.	5	4.71	.49
19	Acts as a liaison between the patient and physician, and other hospital departments.	5	4.71	.49
20	Uses good listening skills, and communicates in an open and responsible, professional manner.	5	4.71	.49
21	Consistently demonstrates interest, caring and consideration in dealing with the patients, significant others, and co-workers.	5	4.71	.49
22	Possesses the ability to communicate effectively with nurses from other health care institutions that do not appreciate the role of the rural nurse	5	4.57	.53
23	Possesses the ability to verbally communicate in an unbiased manner with individuals from all socioeconomic and educational backgrounds.	4	4.43	.53
24	Demonstrates knowledge of Information Management requirements specific to the department and the hospital.	4	4.43	.53
25	Develops, initiates, and participates in the process of patient education, discharge instructions, and preparation of the patient/significant other for discharge or transfer.	4	4.43	.53
26	Cooperates with staff to achieve department goals and promote good employee relations, interdepartmental relations and public relations.	4	4.43	.53
27	Able to communicate with other health care providers in order to coordinate care after the hospital stay.	4	4.29	.49

(Table cont.)

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.
[a]Median ratings indicated by Delphi panelists
[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Round Two Management/Organizational Competency Ratings

The 26 management/organizational competencies were interpreted as follows: 5.00 – 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Eight competencies were rated as highest with a mean rating of 5.00 (SD=0), which placed these in the category of "high importance" (Table 8). These nine were rated equally the same by all seven panelists. These competencies included "flexibility and organizational skills," "manage the care of patients," "organize patient care load," "proper time management," "function under pressure," "clinical assignments based on patient's needs," "rapidly shift from one patient care area," and "adapts easily to changes." The lowest ranked item was "under-utilization as well of over-utilization of resources" which had a mean rating of 3.86. (SD=.90). Although this was the lowest rated item it was still considered in the "substantial importance" category. A total of 14 items were ranked as "high importance" (5.00-4.50), while the remaining 12 items were considered of "substantial importance" (4.49-3.50). No items were rated as "moderate importance," "low importance," or "no importance."

Development of the Round Three Instrument

Information obtained from the second round was utilized to develop the Round Three Instrument. The wording of the Clinical/Technical Competency which read "possesses

Table 8. Importance of Management/Organizational Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round Two Delphi Survey

Rank	Management/Organizational Competencies	Med[a]	X[b]	SD
1	Demonstrates flexibility and organizational skills in rapidly changing situations.	5	5.00	0
2	Possesses the ability to manage the care of patients being cared for by different physicians.	5	5.00	0
3	Possesses the ability to organize the patient care load utilizing the sometimes limited available staff.	5	5.00	0
4	Demonstrates proper time management skills in order to complete tasks in a timely manner.	5	5.00	0
5	Demonstrates the ability to function under pressure during a disaster maintaining a calm, controlled demeanor.	5	5.00	0
6	Makes clinical assignments based on the patient's needs and circumstances.	5	5.00	0
7	Possesses the ability to rapidly shift from one patient care area to another (i.e. Operating Room to Emergency Department).	5	5.00	0
8	Adapts easily to changes in work assignments and environment and is willing to assume additional responsibility and learn new procedures	5	5.00	0
9	Strives to promote a positive attitude with the team and accepts additional assignments willingly	5	4.86	.38
10	Possesses the ability to manage ancillary departmental problems after routine office hours.	5	4.71	.49
11	Knowledgeable of the facilities' organizational structure, including policies and procedures.	5	4.71	.49
12	Assists in the promotion and maintenance of high quality care through the analysis, review, and evaluation of clinical practice.	5	4.57	.53
13	Delegates needs/tasks appropriately	5	4.57	.53
14	Demonstrates the ability to multi-task.	5	4.57	.53
15	Demonstrates the ability and flexibility to recognize and accept changing conditions while continuing to perform to the best of one's ability.	5	4.43	.79
16	Ensures a high quality of patient care through appropriate human and material resource allocation.	4	4.43	.53
17	Able to work independently of senior staff.	4	4.43	.53
18	Effectively utilizes certain key skills, including communication, critical thinking, negotiation, collaboration, as well as patient advocacy and empowerment.	4	4.29	.49

(Table cont.)

19	Ensures effective and efficient utilization of all hospital resources, human and material	4	4.29	.49
20	Demonstrates initiative by active participation in staff meetings, committees, and projects.	4	4.29	.49
21	Participates in the problem-solving process associated with Quality Improvement.	4	4.29	.49
22	Ensures that the services delivered to patients are medically necessary and are appropriate for the diagnosis, condition, or medical problem	4	4.29	.76
23	Coordinates the individual patients' needs within the context of all outside influences, including the health care delivery system, the community, and the payer source	4	4.14	.38
24	Functions as an integral member of the hospital's leadership team.	4	4.14	.38
25	Aware of professional and personal limitations and how to access assistance when needed.	4	4.14	.69
26	Considers under-utilization as well as over-utilization of resources in the evaluation of patient care.	4	3.86	.90

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[a]Median ratings indicated by Delphi panelists

[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

the ability to perform a physical assessment on patients of all ages" was changed to read "perform a physical assessment on patients across the lifespan". According to one panelist, the later wording would be considered more appropriate in keeping with the current trend in nursing to refer to lifespan in relation to physical assessment as opposed to age. The Clinical/Technical Competency "possesses the knowledge and ability to perform triage/emergency clinical nursing assessments" was separated into two competencies. Panelists believed that the ability to effectively triage a patient was different from performing emergency care. Clinical/Technical Competencies # 19 and # 20 were combined since both essentially addressed the same skills related to care planning. One Clinical/Technical Competency was added which addressed the

importance of possessing a knowledge of computer skills especially when the nurse is working in the Emergency Department. Recently Critical Access Hospitals across the state had received governmental funding to add the Computerized Medical Record to the Emergency Department. The panelists believed that with the increased use of computer technology in the rural hospital that a competency addressing computer skills should be added. The ranking of the Clinical/Technical Skill Competency which addressed the requirement to be trauma certified in order to work in the Emergency Department was changed by one panelist. Initially this panelist had ranked this competency as "low importance." She wrote that initially she believed that as long as an Emergency Room physician was present there was no need for the nurses to be trauma certified. After more thought on the subject she changed her rating to "moderate importance" citing situations where multiple patients with serious problems may enter an Emergency Department at one time thus needing the expertise of a trauma certified nurse.

The # 5 Critical Thinking Competency which addressed "knowledgeable in regards to intravenous therapy and the maintenance of peripheral and central venous catheters" was moved to the Clinical/Technical Competency category. Panelists stated that this competency was more technical in nature. An example of limited resources in the rural setting was added to the #6 Critical Thinking Competency as suggested by one panelist. Panelists recommended combining Critical Thinking Competencies #15 "follows organizational policies" and #19 "knowledgeable of safety, risk management" but a decision was made to keep these competencies separate since #15 addressed policies related to the organization while #19 was meant to address federal and state guidelines. For purposes of clarification, #19 was restructured to include "federal and state guidelines."

In the Communication/Interpersonal Competency listing one panelist believed that #3 "exhibits a professional image" and #11 "makes a positive first impression" competencies were identical and that one should be eliminated. Since this was the suggestion of one panelist, the decision was made by the researcher to include both competencies in Round Three so that the contribution by another panelist was not eliminated. A grammatical edit was made to #26 based a suggestion by another panelist changing the word "department" to "departmental".

In the Management/Organizational Competencies section, two of the panelists believed that #6 "makes clinical assignments," #10 "manage ancillary departmental problems," and #24 "member of leadership team" competencies addressed the role of charge nurse more than the role of the staff nurse. The decision was made by the researcher to include these competencies since staff nurses in rural hospitals frequently assume the role of charge nurse due to lower staffing patterns.

Results of Round Three Delphi Panel Survey

Round Three was the final round in this Delphi research. The seven panelists were asked to examine their ratings of the importance of rural nurse competencies in relation to the overall group rating. Strict confidentiality was maintained since individual ratings from the previous round were included in Round Three. A letter of instruction for Round Three (Appendix L) and the Round Three Instrument (Appendix M) was sent to the panelists on October 2, 2006. If the panelist's rating on an item was within ± 1 of the group median, their ranking was considered in consensus with the overall panel. (Delany 2004, Gaspard 1992). The level of consensus was 51% agreement of the Delphi panel members on the five-point anchored scale. Those items that met the criteria for consensus did not require any further consideration even though panelists could still

change ratings if they wished to do so. During this round, the panelists were directed to address those competencies with an asterisk utilizing the same scale as in Round Two.

The Round Three Letter of Instruction informed the panelists that the lack of an asterisk next to the competency indicated consensus with the group. The panelists was directed that adjustments related to these competencies did not need to be made unless the panelists wished to change the rating. The panelists were then directed to examine the competencies with an asterisk. The panel member could rate these competencies within one scale interval of the median or place the Round Two rating in this column and explain the reason why they believed their rating was more realistic. By October 12, the researcher had received the Round Three Instrument results from all seven panel members. The time period for Round Three data collection was 11 days including October 2 through October 12.

The mean, median, and standard deviation were duplicated for Round Three of the data analysis. In addition, the level of consensus for each item was calculated. The competencies were ranked from highest to the lowest according to group mean. If there was a tie, then the competency with the lowest standard deviation was ranked first (Delany 2004, Gaspard 1992). The items were then ranked by ascending standard deviation scores. A total of 102 rural nurse competencies were identified as reaching group consensus.

Round Three Clinical/Technical Competency Ratings

The 25 clinical/technical competencies ratings were interpreted as follows: 5.00 – 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Eight competencies were rated as highest with a mean rating of 5.00(SD=0) and a 100% consensus level. (Table 9). These competencies included "perform a physical assessment on patients of all ages," "knowledge of emergency procedures in all areas of the hospital," "perform basic nursing procedure/treatments," "perform triage clinical nursing assessments," "perform emergency clinical nursing assessments," "operate equipment utilized in patient care," "basic dysrhythmia recognition," and "intravenous therapy and maintenance of peripheral and central catheters." The lowest ranked item was "fundamental computer skills" which had a mean rating of 3.92 (SD=.76) and a 100% consensus level. Although this was the lowest rated item it was still considered in the "substantial importance" category. A total of 15 items were ranked as "high importance" (5.00-4.50), while the remaining 10 items were considered of "substantial importance" (4.49-3.50). No items were rated as "moderate importance," "low importance," or "no importance."

Round Three Critical Thinking Competency Ratings

The 24 critical thinking competencies ratings were interpreted as follows: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Table 9. Importance of Clinical/Technical Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round Three Delphi Survey

Rank	Clinical/Technical Competency	Med[a]	X[b]	SD	%[d]
1	Possesses the ability to perform a physical assessment on patients across the lifespan.	5	5.00	0	100
2	Knowledgeable of emergency procedures in all areas of the hospital, not only those that present to the Emergency Department.	5	5.00	0	100

(Table cont.)

3	Able to perform basic nursing procedures/treatments appropriate to the patient's diagnosis and age group.	5	5.00	0	100
4	Possesses the knowledge and ability to perform triage nursing assessments on individuals of all ages.	5	5.00	0	100
5	Possesses the knowledge and ability to perform emergency clinical nursing assessments on individuals of all ages.	5	5.00	0	100
6	Able to operate equipment utilized in patient care such as infusion pumps, suction apparatus, lifters, telemetry monitors, and defibrillators.	5	5.00	0	100
7	Knowledgeable of basic dysrhythmia recognition.	5	5.00	0	100
8	Knowledgeable in regards to intravenous therapy and the maintenance of peripheral and central venous catheters. (i.e. the delivery of IV drugs, drips, blood and blood products).	5	5.00	0	100
9	Performs nursing procedures based on the standards of care, hospital policies, and medical and nursing protocols.	5	4.86	.38	100
10	Possesses a working knowledge and the ability to perform/initiate respiratory therapy and phlebotomy measures so as not to delay patient care and treatment while on call services are being activated.	5	4.86	.38	100
11	Completes a nursing assessment within an established timeframe of admission to serve as a guide for the implementation of the patient's care plan.	5	4.71	.49	100
12	Knowledgeable of medications action and side effects.	5	4.57	.53	100
13	Applies the nursing diagnosis and institutes monitoring nursing interventions to improve patient outcomes.	5	4.57	.53	100
14	Is ACLS and PALS certified.	5	4.57	.53	100
15	Evaluates patient responses to nursing interventions and communicates responses through legible documentation and reporting.	5	4.57	.79	71
16	Knowledgeable of medication administration guidelines for all age groups.	4	4.49	.53	100
17	Implements the nursing process to provide quality care based on assessment, diagnosis, planning, intervention, and evaluation.	4	4.43	.53	100

(Table cont.)

18	Completes and continually updates the patient care plan according to the changing patient needs.	5	4.43	.79	71
19	Data collection related to the health status of the patient is systematic and continuous.	4	4.29	.49	100
20	Goals for nursing care are formulated and stated in terms of observable outcomes.	4	4.29	.49	100
21	Evaluation, reassessment, recording of priorities, new goal setting, and revision of the care plan is a continuous process.	4	4.29	.49	100
22	For emergency department purposes, is TNC certified.	4	4.29	.76	71
23	The patient's response is compared with observable outcomes, which are specified in the care plan goals.	4	4.14	.69	86
24	The nursing diagnosis is derived from the patient's health status data.	4	4.00	.82	71
25	Possesses fundamental computer technology skills in order to effectively utilize the Computerized Medical Record in the Emergency Department.	3	3.29	.76	100

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[a]Median ratings indicated by Delphi panelists

[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[d] Level of consensus=percentage of panelists within ± 1 of the median.

Four competencies were rated as highest with a mean rating of 5.00 (SD=0), which placed these in the category of "high importance" (Table 10). These four were rated equally the same by all seven panelists. These competencies included "the ability to care for a highly varied group of patients,' "the ability to recognize any changes in the patient's condition," "the use of good judgment in clinical decision making," and "recognize and respond to emergency situations." The lowest ranked item was "discharge patients with special needs" which had a mean rating of 4.00 (SD=.82). Although this was the lowest rated item it was still considered in the "substantial

importance" category. A total of 14 items were ranked as "high importance" (5.00-4.50), while the remaining 11 items were considered of "substantial importance" (4.49-3.50). No items were rated as "moderate importance," "low importance," or "no importance."

Table 10. Importance of Critical Thinking Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round Three Delphi Survey

Rank	Critical Thinking Competency	Med[a]	X[b]	SD	%[d]
1	Possesses the ability to care for a highly varied group of patients with different diagnoses all located in one clinical area.	5	5.00	0	100
2	Possesses the ability to recognize any changes in a patient's condition and provide the most appropriate care at any given time.	5	5.00	0	100
3	Ensures the use of good judgment in clinical decision making.	5	5.00	0	100
4	Possesses the ability to recognize and respond to emergency situations occurring in all age groups.	5	5.00	0	100
5	Able to meet the needs of patients utilizing limited resources of the rural setting i.e. lack of transportation.	5	4.86	.38	100
6	Demonstrates initiative in providing patient emergent or non-emergent care within the scope of nursing practice.	5	4.86	.38	100
7	Must have a clear understanding of all disease processes and individualize these processes in planning patient care (i.e. wound care, fall prevention).	5	4.86	.38	100
8	Demonstrates the ability to work with minimum supervisory guidance in exercising independent judgment.	5	4.71	.49	100
9	Appropriately delegates and prioritizes patient care activities, and implements the nursing process to ensure that each patient is provided quality patient care.	5	4.57	.53	100
10	Able to successfully manage the patient's medication regimen.	5	4.57	.53	100
11	Utilizes broad pharmaceutical knowledge related to the prevention of drug interactions, and medication errors.	5	4.57	.53	100

(Table cont.)

12	Maintains clinical skills necessary to provide safe, effective nursing care without the availability of pharmacy or respiratory therapy 24 hours a day.	5	4.57	.53	100
13	Follows organizational policies/plans/procedures for safety, security, hazardous materials and waste, emergency preparedness, fire/life safety, medical equipment management, utility system management, and infection control.	5	4.57	.79	86
14	Identifies specific goals, objectives, and actions designed to meet the patient's needs.	4	4.43	.53	100
15	Executes specific patient care activities and/or interventions that will lead to accomplishing the goals set forth in the care plan.	4	4.43	.53	100
16	Applies cognitive, technical, and interpersonal skills in the overall coordination of patient care.	5	4.43	.79	86
17	Knowledgeable of Safety, Risk Management, Infection Control, and Emergency Preparedness procedures according to federal and state guidelines.	5	4.43	.79	86
18	Able to perform an assessment that collects in depth information about a patient's situation and functioning and then develop a plan of care based on this assessment.	4	4.29	.49	100
19	Analyzes problems and suggests appropriate solutions, taking action within the limits of authority.	4	4.29	.49	100
20	Able to successfully delegate lower level of care activities.	4	4.29	.76	100
21	Coordinates, organizes, secures, integrates, and modifies the resources necessary to accomplish the goals set forth in the care plan.	4	4.29	.76	86
22	Monitors the results of care provided in order to determine the care plan's effectiveness.	4	4.29	.76	86
23	Evaluates the care plan at appropriate intervals to determine the plan's effectiveness in reaching desired outcomes and goals.	4	4.14	.69	86
24	Knowledgeable regarding the discharge process of patients with special needs i.e. Home Health, Hospice, Nursing Home, patients requiring medical equipment at home, mental health issues, etc.	4	4.00	.82	100

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[a]Median ratings indicated by Delphi panelists
[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.
[d] Level of consensus=percentage of panelists within ± 1 of the median.

Round Three Communication/Interpersonal Competency Ratings

The 27 Communication/Interpersonal competencies ratings were interpreted as follows: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Nine competencies were rated as highest with a mean rating of 5.00 (SD=0), which placed these in the category of "high importance" (Table 11). These nine were rated equally the same by all seven panelists. These competencies included "communicate clearly and effectively," "high personal and professional standards," "professional image, good work ethics and positive role model," "patient's confidence with professional care," "age specific competencies when teaching," "confidentiality of patient, physician, and employee information," " regulatory documentation requirements," "compassion and respect for staff, patient, and family," and "unclear, illegible, or non-specific physician orders". The lowest ranked item was "communicate with other health providers" which had a mean rating of 4.29 (SD=.49). Although this was the lowest rated item it was still considered in the "substantial importance" category. A total of 22 items were ranked as "high importance" (5.00-4.50), while the remaining five items were considered of "substantial importance" (4.49-3.50). No items were rated as "moderate importance," "low importance," or "no importance."

Table 11. Importance of Communication/Interpersonal Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round Three Delphi Survey

Rank	Communication/Interpersonal Competency	Med[a]	X[b]	SD	%[d]
1	Possesses the ability to communicate clearly and effectively with other members of the hospital team.	5	5.00	0	100
2	Maintains high personal and professional standards.	5	5.00	0	100
3	Exhibits a professional image, good work ethics and serves as a positive role model to staff.	5	5.00	0	100
4	Gains the patient's confidence with professional considerate nursing care.	5	5.00	0	100
5	Refers to age specific competencies when teaching the patient and family.	5	5.00	0	100
6	Maintains confidentiality of patient, physician and employee information in accordance with standards established by the hospital in compliance with regulatory agency requirements i.e., HIPAA regulations.	5	5.00	0	100
7	Adheres to regulatory agency documentation requirements.	5	5.00	0	100
8	Demonstrates compassion and respect for the staff, patient and patient's family.	5	5.00	0	100
9	Clarifies unclear, illegible, or non-specific physician orders prior to implementation.	5	5.00	0	100
10	Knowledgeable of proper documentation guidelines	5	4.86	.38	100
11	Makes a positive first impression a personal priority, and is honest.	5	4.86	.38	100
12	Demonstrates positive interpersonal communication skills and projects a positive attitude.	5	4.86	.38	100
13	Accepts phone and verbal orders appropriately, transcribing and implementing orders correctly and in a timely manner.	5	4.86	.38	100
14	Strives for excellence, demonstrates high performance in all endeavors.	5	4.71	.49	100
15	Exhibits a customer-focused attitude toward others	5	4.71	.49	100
16	Fosters a team-focused, interdisciplinary approach to all patient care activities.	5	4.71	.49	100
17	Utilizes resources available to communicate with hearing/sight impaired individuals.	5	4.71	.49	100

(Table cont.)

18	Is a patient advocate regardless of the patient's age, culture, or religious background.	5	4.71	.49	100
19	Acts as a liaison between the patient and physician, and other hospital departments.	5	4.71	.49	100
20	Uses good listening skills, and communicates in an open and responsible, professional manner.	5	4.71	.49	100
21	Consistently demonstrates interest, caring and consideration in dealing with the patients, significant others, and co-workers.	5	4.71	.49	100
22	Possesses the ability to communicate effectively with nurses from other health care institutions that do not appreciate the role of the rural nurse	5	4.57	.53	100
23	Possesses the ability to verbally communicate in an unbiased manner with individuals from all socioeconomic and educational backgrounds.	4	4.43	.53	100
24	Demonstrates knowledge of Information Management requirements specific to the department and the hospital.	4	4.43	.53	100
25	Develops, initiates, and participates in the process of patient education, discharge instructions, and preparation of the patient/significant other for discharge or transfer.	4	4.43	.53	100
26	Cooperates with staff to achieve departmental goals and promote good employee relations, interdepartmental relations and public relations.	4	4.43	.53	100
27	Able to communicate with other health care providers in order to coordinate care after the hospital stay.	4	4.29	.49	100

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[a]Median ratings indicated by Delphi panelists

[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[d] Level of consensus=percentage of panelists within ± 1 of the median.

Round Three Management/Organizational Competency Ratings

The 26 Management/Organizational competencies ratings were interpreted as follows: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

Eight competencies were rated as highest with a mean rating of 5.00 (SD=0), which placed these in the category of "high importance" (Table 12). These eight were rated equally the same by all seven panelists. These competencies included "flexibility and organizational skills," "manage the care of patients," "organize patient care load," "proper time management," "function under pressure," "clinical assignments based on patient's needs," "rapidly shift from one patient care area" and "adapts easily to changes." The lowest ranked item was "underutilization as well of overutilization of resources" which had a mean rating of 3.86. (SD=.90). Although this was the lowest rated item it was still considered in the "substantial importance" category. A total of 14 items were ranked as "high importance" (5.00-4.50), while the remaining 12 items were considered of "substantial importance" (4.49-3.50). No items were rated as "moderate importance," "low importance," or "no importance."

Table 12. Importance of Management/Organizational Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in a Round Three Delphi Survey

Rank	Management/Organizational Competencies	Med[a]	X[b]	SD	%[d]
1	Demonstrates flexibility and organizational skills in rapidly changing situations.	5	5.00	0	100
2	Possesses the ability to manage the care of patients being cared for by different physicians.	5	5.00	0	100
3	Possesses the ability to organize the patient care load utilizing the sometimes limited available staff.	5	5.00	0	100
4	Demonstrates proper time management skills in order to complete tasks in a timely manner.	5	5.00	0	100
5	Demonstrates the ability to function under pressure during a disaster maintaining a calm, controlled demeanor.	5	5.00	0	100
6	Makes clinical assignments based on the patient's needs and circumstances.	5	5.00	0	100
7	Possesses the ability to rapidly shift from one patient care area to another (i.e. Operating Room to Emergency Department).	5	5.00	0	100

(Table cont.)

8	Adapts easily to changes in work assignments and environment and is willing to assume additional responsibility and learn new procedures	5	5.00	0	100
9	Strives to promote a positive attitude with the team and accepts additional assignments willingly	5	4.86	.38	100
10	Possesses the ability to manage ancillary departmental problems after routine office hours.	5	4.71	.49	100
11	Knowledgeable of the facilities' organizational structure, including policies and procedures.	5	4.71	.49	100
12	Assists in the promotion and maintenance of high quality care through the analysis, review, and evaluation of clinical practice.	5	4.57	.53	100
13	Delegates needs/tasks appropriately	5	4.57	.53	100
14	Demonstrates the ability to multi-task.	5	4.57	.53	100
15	Demonstrates the ability and flexibility to recognize and accept changing conditions while continuing to perform to the best of one's ability.	5	4.43	.79	86
16	Ensures a high quality of patient care through appropriate human and material resource allocation.	4	4.43	.53	100
17	Able to work independently of senior staff.	4	4.43	.53	100
18	Effectively utilizes certain key skills, including communication, critical thinking, negotiation, collaboration, as well as patient advocacy and empowerment.	4	4.29	.49	100
19	Ensures effective and efficient utilization of all hospital resources, human and material	4	4.29	.49	100
20	Demonstrates initiative by active participation in staff meetings, committees, and projects.	4	4.29	.49	100
21	Participates in the problem-solving process associated with Quality Improvement.	4	4.29	.49	100
22	Ensures that the services delivered to patients are medically necessary and are appropriate for the diagnosis, condition, or medical problem	4	4.29	.76	100
23	Coordinates the individual patients' needs within the context of all outside influences, including the health care delivery system, the community, and the payer source	4	4.14	.38	100
24	Functions as an integral member of the hospital's leadership team.	4	4.14	.38	100

(Table cont.)

25	Aware of professional and personal limitations and how to access assistance when needed.	4	4.14	.69	86
26	Considers under-utilization as well as over-utilization of resources in the evaluation of patient care.	4	3.86	.90	71

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.
[a]Median ratings indicated by Delphi panelists
[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.
[d] Level of consensus=percentage of panelists within ± 1 of the median.

Summary of Quantitative Results

Seven panel members responded to Rounds One, Two, and Three. A total of 149 competencies were received and consolidated to 102 unique competencies. At the completion of Round Two one competency was added and two competencies combined into one competency. Consensus was achieved on all 102 items at the completion of Round Three ranging from 71% to 100%. The items receiving the overall highest rating are identified in Table 13.

Table 13. Competencies Rated As High Importance by Rural Nursing Experts at the Completion of the Delphi Survey

Competencies	**Med[a]**	**X[b]**	**SD**	**%[d]**
Possesses the ability to perform a physical assessment on patients across the lifespan. **Clinical/Technical Competencies**	5	5.00	0	100
Knowledgeable of emergency procedures in all areas of the hospital, not only those that present to the Emergency Department. **Clinical/Technical Competencies**	5	5.00	0	100
Able to perform basic nursing procedures/treatments appropriate to the patient's diagnosis and age group. **Clinical/Technical Competencies**	5	5.00	0	100
Possesses the knowledge and ability to perform triage nursing assessments on individuals of all ages. **Clinical/Technical Competencies**	5	5.00	0	100

(Table cont.)

Possesses the knowledge and ability to perform emergency clinical nursing assessments on individuals of all ages. **Clinical/Technical Competencies**	5	5.00	0	100
Able to operate equipment utilized in patient care such as infusion pumps, suction apparatus, lifters, telemetry monitors, and defibrillators. **Clinical/Technical Competencies**	5	5.00	0	100
Knowledgeable of basic dysrhythmia recognition. **Clinical/Technical Competencies**	5	5.00	0	100
Knowledgeable in regards to intravenous therapy and the maintenance of peripheral and central venous catheters. (i.e. the delivery of IV drugs, drips, blood and blood products). **Clinical/Technical Competencies**	5	5.00	0	100
Possesses the ability to care for a highly varied group of patients with different diagnoses all located in one clinical area. **Critical Thinking**	5	5.00	0	100
Possesses the ability to recognize any changes in a patient's condition and provide the most appropriate care at any given time. **Critical Thinking**	5	5.00	0	100
Ensures the use of good judgment in clinical decision making. **Critical Thinking**	5	5.00	0	100
Possesses the ability to recognize and respond to emergency situations occurring in all age groups. **Critical Thinking**	5	5.00	0	100
Possesses the ability to communicate clearly and effectively with other members of the hospital team. **Communication/Interpersonal**	5	5.00	0	100
Maintains high personal and professional standards. **Communication/Interpersonal**	5	5.00	0	100
Exhibits a professional image, good work ethics and serves as a positive role model to staff. **Communication/Interpersonal**	5	5.00	0	100
Gains the patient's confidence with professional considerate nursing care. **Communication/Interpersonal**	5	5.00	0	100
Refers to age specific competencies when teaching the patient and family. **Communication/Interpersonal**	5	5.00	0	100
Maintains confidentiality of patient, physician and employee information in accordance with standards established by the hospital in compliance with regulatory agency requirements i.e., HIPAA regulations. **Communication/Interpersonal**	5	5.00	0	100
Adheres to regulatory agency documentation requirements. **Communication/Interpersonal**	5	5.00	0	100

(Table cont.)

Demonstrates compassion and respect for the staff, patient and patient's family. **Communication/Interpersonal**	5	5.00	0	100
Clarifies unclear, illegible, or non-specific physician orders prior to implementation. **Communication/Interpersonal**	5	5.00	0	100
Demonstrates flexibility and organizational skills in rapidly changing situations. **Management/Organizational**	5	5.00	0	100
Possesses the ability to manage the care of patients being cared for by different physicians. **Management/Organizational**	5	5.00	0	100
Possesses the ability to organize the patient care load utilizing the sometimes limited available staff. **Management/Organizational**	5	5.00	0	100
Demonstrates proper time management skills in order to complete tasks in a timely manner. **Management/Organizational**	5	5.00	0	100
Demonstrates the ability to function under pressure during a disaster maintaining a calm, controlled demeanor. **Management/Organizational**	5	5.00	0	100
Makes clinical assignments based on the patient's needs and circumstances. **Management/Organizational**	5	5.00	0	100
Possesses the ability to rapidly shift from one patient care area to another (i.e. Operating Room to Emergency Department). **Management/Organizational**	5	5.00	0	100
Adapts easily to changes in work assignments and environment and is willing to assume additional responsibility and learn new procedures. **Management/Organizational**	5	5.00	0	100

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[a]Median ratings indicated by Delphi panelists

[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[d] Level of consensus=percentage of panelists within ± 1 of the median.

The competencies were categorized according to the areas of Clinical/Technical, Critical Thinking, Communication/Interpersonal, and Management/Organizational Competencies. Clinical/Technical and Critical Thinking each accounted for 25

competencies respectively. Twenty-seven competencies were listed under the Communication/Interpersonal and 26 competencies under the heading of Management/Organizational. Table 14 illustrates the competency category and level of importance rating assigned by panel members. Table 15 is illustrates a combined listing of all competencies in descending order.

Table 14. Importance Rating Summary of Nurse Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts at the Completion of Round Three Delphi Survey

Competency Category	High Importance 5.00-4.50	Substantial Importance 4.49-3.50	Moderate Importance 3.49-2.50	Low Importance 2.49-1.50	Total
Clinical/Technical	15	10	0	0	25
Critical Thinking	14	11	0	0	25
Communication/ Interpersonal	22	5	0	0	27
Management/ Organizational	14	12	0	0	26
Total	65	38	0	0	103
Percent Frequency	63%	37%	0	0	100%

Table 15. Combined Listing of All Nurse Competencies Needed by Critical Access Hospital Nurses Identified by Rural Nursing Experts in Descending Order at the Completion of Round Three Delphi Survey

Competencies	Med[a]	X[b]	SD	%[d]
Possesses the ability to perform a physical assessment on patients across the lifespan. **Clinical/Technical**	5	5.00	0	100
Knowledgeable of emergency procedures in all areas of the hospital, not only those that present to the Emergency Department. **Clinical/Technical**	5	5.00	0	100
Able to perform basic nursing procedures/treatments appropriate to the patient's diagnosis and age group. **Clinical/Technical**	5	5.00	0	100
Possesses the knowledge and ability to perform triage nursing assessments on individuals of all ages. **Clinical/Technical**	5	5.00	0	100

(Table cont.)

Possesses the knowledge and ability to perform emergency clinical nursing assessments on individuals of all ages. **Clinical/Technical**	5	5.00	0	100
Able to operate equipment utilized in patient care such as infusion pumps, suction apparatus, lifters, telemetry monitors, and defibrillators. **Clinical/Technical**	5	5.00	0	100
Knowledgeable of basic dysrhythmia recognition. **Clinical/Technical**	5	5.00	0	100
Knowledgeable in regards to intravenous therapy and the maintenance of peripheral and central venous catheters. (i.e. the delivery of IV drugs, drips, blood and blood products). **Clinical/Technical**	5	5.00	0	100
Possesses the ability to care for a highly varied group of patients with different diagnoses all located in one clinical area. **Critical Thinking**	5	5.00	0	100
Possesses the ability to recognize any changes in a patient's condition and provide the most appropriate care at any given time. **Critical Thinking**	5	5.00	0	100
Ensures the use of good judgment in clinical decision making. **Critical Thinking**	5	5.00	0	100
Possesses the ability to recognize and respond to emergency situations occurring in all age groups. **Critical Thinking**	5	5.00	0	100
Possesses the ability to communicate clearly and effectively with other members of the hospital team. **Communication/Interpersonal**	5	5.00	0	100
Maintains high personal and professional standards. **Communication/Interpersonal**	5	5.00	0	100
Exhibits a professional image, good work ethics and serves as a positive role model to staff. **Communication/Interpersonal**	5	5.00	0	100
Gains the patient's confidence with professional considerate nursing care. **Communication/Interpersonal**	5	5.00	0	100
Refers to age specific competencies when teaching the patient and family. **Communication/Interpersonal**	5	5.00	0	100
Maintains confidentiality of patient, physician and employee information in accordance with standards established by the hospital in compliance with regulatory agency requirements i.e., HIPAA regulations. **Communication/Interpersonal**	5	5.00	0	100
Adheres to regulatory agency documentation requirements. **Communication/Interpersonal**	5	5.00	0	100
Demonstrates compassion and respect for the staff, patient and patient's family. **Communication/Interpersonal**	5	5.00	0	100

(Table cont.)

Clarifies unclear, illegible, or non-specific physician orders prior to implementation. **Communication/Interpersonal**	5	5.00	0	100
Demonstrates flexibility and organizational skills in rapidly changing situations. **Management/Organizational**	5	5.00	0	100
Possesses the ability to manage the care of patients being cared for by different physicians. **Management/Organizational**	5	5.00	0	100
Possesses the ability to organize the patient care load utilizing the sometimes limited available staff. **Management/Organizational**	5	5.00	0	100
Demonstrates proper time management skills in order to complete tasks in a timely manner. **Management/Organizational**	5	5.00	0	100
Demonstrates the ability to function under pressure during a disaster maintaining a calm, controlled demeanor. **Management/Organizational**	5	5.00	0	100
Makes clinical assignments based on the patient's needs and circumstances. **Management/Organizational**	5	5.00	0	100
Possesses the ability to rapidly shift from one patient care area to another (i.e. Operating Room to Emergency Department). **Management/Organizational**	5	5.00	0	100
Adapts easily to changes in work assignments and environment and is willing to assume additional responsibility and learn new procedures. **Management/Organizational**	5	5.00	0	100
Performs nursing procedures based on the standards of care, hospital policies, and medical and nursing protocols. **Clinical/Technical**	5	4.86	.38	100
Possesses a working knowledge and the ability to perform/initiate respiratory therapy and phlebotomy measures so as not to delay patient care and treatment while on call services are being activated. **Clinical/Technical**	5	4.86	.38	100
Able to meet the needs of patients utilizing limited resources of the rural setting i.e. lack of transportation. **Critical Thinking**	5	4.86	.38	100
Demonstrates initiative in providing patient emergent or non-emergent care within the scope of nursing practice. **Critical Thinking**	5	4.86	.38	100
Must have a clear understanding of all disease processes and individualize these processes in planning patient care (i.e. wound care, fall prevention). **Critical Thinking**	5	4.86	.38	100

(Table cont.)

Knowledgeable of proper documentation guidelines **Communication/Interpersonal**	5	4.86	.38	100
Makes a positive first impression a personal priority, and is honest. **Communication/Interpersonal**	5	4.86	.38	100
Demonstrates positive interpersonal communication skills and projects a positive attitude. **Communication/Interpersonal**	5	4.86	.38	100
Accepts phone and verbal orders appropriately, transcribing and implementing orders correctly and in a timely manner. **Communication/Interpersonal**	5	4.86	.38	100
Strives to promote a positive attitude with the team and accepts additional assignments willingly **Management/Organizational**	5	4.86	.38	100
Completes a nursing assessment within an established timeframe of admission to serve as a guide for the implementation of the patient's care plan. **Clinical/Technical**	5	4.71	.49	100
Demonstrates the ability to work with minimum supervisory guidance in exercising independent judgment. **Critical Thinking**	5	4.71	.49	100
Strives for excellence, demonstrates high performance in all endeavors. **Communication/Interpersonal**	5	4.71	.49	100
Exhibits a customer-focused attitude toward others **Communication/Interpersonal**	5	4.71	.49	100
Fosters a team-focused, interdisciplinary approach to all patient care activities. **Communication/Interpersonal**	5	4.71	.49	100
Utilizes resources available to communicate with hearing/sight impaired individuals. **Communication/Interpersonal**	5	4.71	.49	100
Is a patient advocate regardless of the patient's age, culture, or religious background. **Communication/Interpersonal**	5	4.71	.49	100
Acts as a liaison between the patient and physician, and other hospital departments. **Communication/Interpersonal**	5	4.71	.49	100
Uses good listening skills, and communicates in an open and responsible, professional manner. **Communication/Interpersonal**	5	4.71	.49	100
Consistently demonstrates interest, caring and consideration in dealing with the patients, significant others, and co-workers. **Communication/Interpersonal**	5	4.71	.49	100
Possesses the ability to manage ancillary departmental problems after routine office hours. **Management/Organizational**	5	4.71	.49	100

(Table cont.)

Knowledgeable of the facilities' organizational structure, including policies and procedures. **Management/Organizational**	5	4.71	.49	100
Knowledgeable of medications action and side effects. **Clinical/Technical**	5	4.57	.53	100
Applies the nursing diagnosis and institutes monitoring nursing interventions to improve patient outcomes. **Clinical/Technical**	5	4.57	.53	100
Is ACLS and PALS certified. **Clinical/Technical**	5	4.57	.53	100
Evaluates patient responses to nursing interventions and communicates responses through legible documentation and reporting. **Clinical/Technical**	5	4.57	.79	71
Appropriately delegates and prioritizes patient care activities, and implements the nursing process to ensure that each patient is provided quality patient care. **Critical Thinking**	5	4.57	.53	100
Able to successfully manage the patient's medication regimen. **Critical Thinking**	5	4.57	.53	100
Utilizes broad pharmaceutical knowledge related to the prevention of drug interactions, and medication errors. **Critical Thinking**	5	4.57	.53	100
Maintains clinical skills necessary to provide safe, effective nursing care without the availability of pharmacy or respiratory therapy 24 hours a day. **Critical Thinking**	5	4.57	.53	100
Follows organizational policies/plans/procedures for safety, security, hazardous materials and waste, emergency preparedness, fire/life safety, medical equipment management, utility system management, and infection control. **Critical Thinking**	5	4.57	.79	86
Possesses the ability to communicate effectively with nurses from other health care institutions that do not appreciate the role of the rural nurse **Communication/Interpersonal**	5	4.57	.53	100
Assists in the promotion and maintenance of high quality care through the analysis, review, and evaluation of clinical practice. **Management/Organizational**	5	4.57	.53	100
Delegates needs/tasks appropriately **Management/Organizational**	5	4.57	.53	100
Demonstrates the ability to multi-task. **Management/Organizational**	5	4.57	.53	100
Knowledgeable of medication administration guidelines for all age groups. **Clinical/Technical**	4	4.49	.53	100
Implements the nursing process to provide quality care based on assessment, diagnosis, planning, intervention, and evaluation. **Clinical/Technical**	4	4.43	.53	100

(Table cont.)

Completes and continually updates the patient care plan according to the changing patient needs. **Clinical/Technical**	5	4.43	.79	71
Identifies specific goals, objectives, and actions designed to meet the patient's needs. **Critical Thinking**	4	4.43	.53	100
Executes specific patient care activities and/or interventions that will lead to accomplishing the goals set forth in the care plan. **Critical Thinking**	4	4.43	.53	100
Applies cognitive, technical, and interpersonal skills in the overall coordination of patient care. **Critical Thinking**	5	4.43	.79	86
Knowledgeable of Safety, Risk Management, Infection Control, and Emergency Preparedness procedures according to federal and state guidelines. **Critical Thinking**	5	4.43	.79	86
Possesses the ability to verbally communicate in an unbiased manner with individuals from all socioeconomic and educational backgrounds. **Communication/Interpersonal**	4	4.43	.53	100
Demonstrates knowledge of Information Management requirements specific to the department and the hospital. **Communication/Interpersonal**	4	4.43	.53	100
Develops, initiates, and participates in the process of patient education, discharge instructions, and preparation of the patient/significant other for discharge or transfer. **Communication/Interpersonal**	4	4.43	.53	100
Cooperates with staff to achieve departmental goals and promote good employee relations, interdepartmental relations and public relations. **Communication/Interpersonal**	4	4.43	.53	100
Demonstrates the ability and flexibility to recognize and accept changing conditions while continuing to perform to the best of one's ability. **Management/Organizational**	5	4.43	.79	86
Ensures a high quality of patient care through appropriate human and material resource allocation. **Management/Organizational**	4	4.43	.53	100
Able to work independently of senior staff. **Management/Organizational**	4	4.43	.53	100
Data collection related to the health status of the patient is systematic and continuous. **Clinical/Technical**	4	4.29	.49	100
Goals for nursing care are formulated and stated in terms of observable outcomes. **Clinical/Technical**	4	4.29	.49	100

(Table cont.)

Evaluation, reassessment, recording of priorities, new goal setting, and revision of the care plan is a continuous process. **Clinical/Technical**	4	4.29	.49	100
For emergency department purposes, is TNC certified. **Clinical/Technical**	4	4.29	.76	71
Able to perform an assessment that collects in depth information about a patient's situation and functioning and then develop a plan of care based on this assessment. **Critical Thinking**	4	4.29	.49	100
Analyzes problems and suggests appropriate solutions, taking action within the limits of authority. **Critical Thinking**	4	4.29	.49	100
Able to successfully delegate lower level of care activities. **Critical Thinking**	4	4.29	.76	100
Coordinates, organizes, secures, integrates, and modifies the resources necessary to accomplish the goals set forth in the care plan. **Critical Thinking**	4	4.29	.76	86
Monitors the results of care provided in order to determine the care plan's effectiveness. **Critical Thinking**	4	4.29	.76	86
Able to communicate with other health care providers in order to coordinate care after the hospital stay. **Communication/Interpersonal**	4	4.29	.49	100
Effectively utilizes certain key skills, including communication, critical thinking, negotiation, collaboration, as well as patient advocacy and empowerment.	4	4.29	.49	100
Ensures effective and efficient utilization of all hospital resources, human and material	4	4.29	.49	100
Demonstrates initiative by active participation in staff meetings, committees, and projects.	4	4.29	.49	100
Participates in the problem-solving process associated with Quality Improvement.	4	4.29	.49	100
Ensures that the services delivered to patients are medically necessary and are appropriate for the diagnosis, condition, or medical problem	4	4.29	.76	100
The patient's response is compared with observable outcomes, which are specified in the care plan goals. **Clinical/Technical**	4	4.14	.69	86
Evaluates the care plan at appropriate intervals to determine the plan's effectiveness in reaching desired outcomes and goals. **Critical Thinking**	4	4.14	.69	86

(Table cont.)

Coordinates the individual patients' needs within the context of all outside influences, including the health care delivery system, the community, and the payer source **Management/Organizational**	4	4.14	.38	100
Functions as an integral member of the hospital's leadership team. **Management/Organizational**	4	4.14	.38	100
Aware of professional and personal limitations and how to access assistance when needed. **Management/Organizational**	4	4.14	.69	86
The nursing diagnosis is derived from the patient's health status data. **Clinical/Technical**	4	4.00	.82	71
Knowledgeable regarding the discharge process of patients with special needs i.e. Home Health, Hospice, Nursing Home, patients requiring medical equipment at home, mental health issues, etc. **Critical Thinking**	4	4.00	.82	100
Considers under-utilization as well as over-utilization of resources in the evaluation of patient care. **Management/Organizational**	4	3.86	.90	71
Possesses fundamental computer technology skills in order to effectively utilize the Computerized Medical Record in the Emergency Department. **Clinical/Technical**	3	3.29	.76	100

Note: Mean ratings classified according to the following scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[a]Median ratings indicated by Delphi panelists

[b]Mean rating based on the following response scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

[d] Level of consensus=percentage of panelists within ± 1 of the median.

Delphi Panel Comments

All panelists alluded to the importance of identifying rural nursing competencies. Comments echoed concerns over the lack of attention in the nursing literature that addressed competencies specific to rural nursing. One of the panelists is currently pursuing a master's degree in nursing and stated that participating in this study served as an "academic learning experience" as she begins work on her thesis. One panelist expressed concerns over rating all the competencies as a "5" or "high importance." She

wrote, “to become a rural health nurse is an achievement learned and earned over time with the support of our fellow nurses..all competencies are of high importance due to the staffing shortage and isolation from specialties.” Finally the panelists were extremely positive throughout the Delphi process and were anxious to incorporate the final list of competencies into either yearly nurse evaluations or annual competency assessments.

CHAPTER 5
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Purpose

The primary purpose of this study was to identify nursing competencies most associated with good nursing practice in Critical Access Hospitals as perceived by a Delphi panel of rural nursing experts. The research objective was accomplished utilizing a Delphi panel of rural health nurse experts who were currently employed as a Director of Nursing in a Critical Access Hospital. The panel of experts was asked to respond to the following focus questions:

"What are the job skills/competencies needed by nurses employed in rural Critical Access Hospitals?"

"Please indicate whether the competency is considered: a) a clinical/technical skill; b) a critical thinking skill; c) a communication/interpersonal skill; or d) management/organizational skill?"

Methodology

The target population for this study consisted of registered nurses who hire, supervise, or manage nurses in Critical Access Hospitals. These registered nurses were subsequently referred to as "experts" in the rural hospital environment. From a potential panel of 27 members, seven Directors of Nursing agreed to participate in the study. These seven composed the Delphi panel for Rounds One, Two, and Three.

A survey instrument was developed for each of the three Delphi rounds. The Round One instrument consisted of two open-ended focus questions. The panelists were asked to respond to the focus questions regarding identification of competencies and then place the competency in the appropriate classification area. The four competency or

classification headings included Clinical/Technical Skills, Critical Thinking Skills, Communication/Interpersonal Skills, and Management/Organizational Skills.

The Round Two survey instrument was a compilation of the competencies received from the Round One instrument. The panelists were asked to rate the competency utilizing the following anchored scale: 5.00 - 4.50 = high importance; 4.49 – 3.50 = substantial importance; 3.49 – 2.50 = moderate importance; 2.49 – 1.50 = low importance; and 1.49 - 1.00 = no importance.

The Round Three survey instrument was dissimilar for each participant. The panel member was asked to rate the competency within one scale interval of the median or place their unique Round Two rating in this column and indicate why they believed their rating was more realistic.

Findings

The objective of this research was achieved by utilizing a Delphi panel of Directors of Nursing to identify competencies needed by nurses employed in Critical Access Hospitals. The Delphi panel participated in three rounds. In the first round, a total of 149 competencies were submitted by the panel. These competencies were consolidated into 101 unique competencies. At the completion of the Round Two survey, one item was added, and two competencies were combined into one competency. The third and final round resulted in a group consensus on all 103 competencies.

Round One. - The Round One instrument was divided into four competency headings which included Clinical/Technical Skills, Critical Thinking Skills, Communication/Interpersonal Skills, and Management/Organizational Skills. The seven panelists submitted a total of 149 items. These items were critiqued for repetitiveness and similar competencies were consolidated. Special caution was taken to ensure the

uniqueness of the submitted competencies was preserved. A total of 102 items were extracted from the original items submitted. These items were used to develop the Round Two survey.

Round Two. –The Round Two survey was composed of 23 Clinical/Technical competencies, 26 Critical Thinking competencies, 26 Communication/Interpersonal competencies, and 27 Management/Organizational competencies. A total of 64 items were rated as "high importance" (5.00-4.50) and 38 items were rated as "substantial importance" (4.49-3.50). No items were rated as "moderate importance" (4.49-3.50), "low importance" (2.49-1.50), or "low importance" (1.49-1.00).Twenty-eight competencies had a mean rating of 5 (SD=0) which indicated these were rated equally the same by all of the panel members. The overall lowest ranked item was "consideration under-utilization as well as over-utilization of resources" with a mean of 3.86 (SD=.90).

Round Three.—Following the completion of the Round Three, it was concluded that a total of 103 rural nurse competencies reached a consensus ranging from 71% to 100%. The competencies were ranked from the highest to the lowest according to group mean. If there was a tie, then the competency with the lowest standard deviation was ranked first (Delany 2004, Gaspard 1992). The items were then ranked by ascending standard deviation scores.

The wording of the Clinical/Technical Competency which read "possesses the ability to perform a physical assessment on patients of all ages" was changed to read "perform a physical assessment on patients across the lifespan." The Clinical/Technical Competency "possesses the knowledge and ability to perform triage/emergency clinical nursing assessments" was separated into two competencies. Clinical/Technical Competencies # 19 and # 20 were combined since both essentially addressed the same skills related to

care planning. One Clinical/Technical Competency was added which addressed the importance of possessing knowledge of computer skills especially when the nurse was working in the Emergency Department.

The # 5 Critical Thinking Competency which addressed "knowledgeable in regards to intravenous therapy and the maintenance of peripheral and central venous catheters" was moved to the Clinical/Technical Competency category. An example of limited resources in the rural setting was added to the #6 Critical Thinking Competency. For purposes of clarification, #19 was restructured to include "federal and state guidelines." In the Communication/Interpersonal Competency a grammatical edit was made to #26 changing the word "department" to "departmental."

All panelists expressed the importance of identifying rural nursing competencies due to the lack of current research that addresses competencies specific to rural nursing in Critical Access Hospitals. The panelists were extremely positive throughout the Delphi process and were anxious to incorporate the final list of competencies into either yearly nurse evaluations or annual competency assessments.

Conclusions and Recommendations

The following conclusions and recommendations were drawn from the findings of this study:

1. The review of literature revealed the existence of similarities and differences between urban nurse competencies and rural nurse competencies. This research further added to this body of research by identifying competencies unique to rural nursing practice. Meretoja, Eriksson, and Leino-Kilpi (2002) identified 23 indicators for competent practice in the urban setting. The urban competencies most similar to those identified in this study were anticipating changes in a patient's condition, administering medications

safely, and incorporating the patient and family into nursing care planning. Urban competencies, different from the rural competencies noted in this study, were incorporating relevant research into practice and coordinating student nurse mentoring into the hospital unit. Urban nurses are more exposed to research studies and serve more often as clinical sites for registered nurse programs as opposed to rural hospitals (Bushy, 2000). Meretoja, Isoaho, and Leino-Kilpi (2004) also identified urban competencies similar to rural competencies outlined in this study. These included planning patient care based on individual needs, modifying the care plan as needed, providing individualized patient education, planning care consistently with resources available, demonstrating a commitment to the organization, and utilizing the team work approach.

Tzeng and Ketefian (2003) outlined technical, clinical, supervisory, assessment, and verbal and written communication skills as important in the urban hospital setting. These were included in the competencies needed by rural nurses identified in this study. In a study by Zhang, Luk, Arthur, and Wong (2000), the urban nurse competencies of information gathering, understanding the patient's needs, and interpersonal communication were recognized as important to practice in the rural setting.

There were competencies specific to the rural environment, which were not noted in the literature as being part of the urban setting. Rural competencies identified in this study emphasized the importance of possessing the knowledge and ability to assess patients across the life span. In the rural hospitals patients of all ages and with varied diagnoses are normally cared for in the same area unlike the urban hospital where age groups and similar diagnoses are grouped together on various units. The importance of being PALS and ACLS certified and understanding basic dysrhythmia interpretation was outlined as important in the rural setting. This was not considered an area of importance

in the urban setting. In the urban setting, nurses in specialized units such as Intensive Care Units and telemetry floors are expected to be certified in these areas. Nurses working in skilled units, for example, would not have to earn these certifications as part of the job requirements. Unlike urban hospitals, Critical Access Hospitals do not have a pharmacist 24 hours a day, seven days a week. The rural nursing staff must maintain clinical skills necessary to provide safe care in relation to medication management. In the Critical Access Hospital, the respiratory, lab, and radiology departments are "on-call" and are not present 24 hours a day in the hospital. The nursing department in the rural setting must have a working knowledge of these ancillary services and possess the ability to perform and initiate respiratory and lab measures so as not to delay patient care.

In the rural setting, there was more of an emphasis on case management competencies with a limited availability of resources as opposed to the urban setting. Urban hospitals normally have a designated case management department so nurses working on the unit do not have to possess an extensive knowledge of case management. Finally, the rural participants in this study identified communicating with other health care institutions in an effective manner as very important. Nurses in urban hospitals do not always understand the limited resources available to the rural hospitals and why rural hospitals can not offer the same services as the urban hospital. Effective communication with the urban counterparts is important to ensure the needs of the patient needing more specialized care in the urban area are met.

2. Competencies needed by rural nurses in Critical Access Hospitals are identifiable. According to the literature review, no research currently addresses competencies specific to nurses employed in Critical Access Hospitals. Numerous studies have examined competency identification in large urban hospitals. Meretoja and Leino-Kilipi (2003)

examined competency assessment by nurse managers in a large university hospital. In a study conducted by Brykczynski (1998) on the identification of expert nursing practices, a large teaching hospital was utilized as the setting for the research. Connelly, Yoder, and Miner-Williams (2003) examined charge nurse competencies in a large military hospital environment. These examples verify that the majority of research on competency identification has taken place in the urban setting. Given the uniqueness of rural nursing practice, this research study has identified competencies that distinctly address practice in the rural Critical Access Hospital setting.

3. The Delphi panel of seven in this study identified rural nurse competencies providing valuable insight into rural nursing practice. Dalkey and Helmer (1963) utilized an expert panel of seven in their original Delphi experiment. According to Akins, Tolson, and Cole (2005) there is actually no clear identification of what constitutes a sufficient number of expert panel members in a Delphi. These researchers found that good results can be obtained from a small Delphi panel as long as the group is knowledgeable and homogenous. The Delphi panel in this study was homogenous consisting strictly of Directors of Nursing in Critical Access Hospitals.

4. Another conclusion to be drawn is related to the amount of response received to the Delphi questions in this study. Directors of Nursing in Critical Access Hospitals wear many hats and have limited time to participate in research studies. Since this researcher is employed in such an environment, it is understandable how the overwhelming responsibilities of this position can impact research participation. Also Directors of Nursing have had limited exposure to research opportunities in the Critical Access Hospital environment. Kenny and Duckett (2003) cited that the majority of nurses practicing in rural environments are not university educated and those that are educated

in university settings normally do not pursue postgraduate work. In a study by Olade (2004), only 20 percent of the rural nurses surveyed were currently involved in the utilization of research to guide practice guidelines. Reasons cited for the lack of research participation in the rural setting was the isolation from research institutions and the absence of nursing research consultants in the rural environment. Bushy (2000) found rural practitioners to be more clinical and service oriented as opposed to research focused. On the other hand, this research study has impacted those that agreed to participate. Hopefully their enthusiasm for this research study will permeate the climate of the Critical Access Hospital environment and make rural nurses aware of the importance of participating in research.

5. Competencies for rural nursing practice identified by Directors of Nursing are considered highly or substantially important. This conclusion is based on the fact that 63 percent of the competencies were rated as highly important and 37 percent were rated as substantially important. Taylor (2000) stated that clinical competency is critical to ensuring safe health care delivery and improving patient care. Given the magnitude of what can occur as a result of incompetent practice, it was crucial that these Directors of Nursing rated all of the competencies as highly or substantially important.

6. The competency headings of Clinical/Technical, Critical Thinking, Communication/Interpersonal, and Management/Organizational were appropriate for classifying nurse competencies in the rural environment. This conclusion is substantiated by the ability of Delphi panel to delineate the competencies into these categories without the need for clarification from the researcher. A total of 25 Clinical/Technical, 25 Critical Thinking, 27 Communication/Interpersonal, and 26 Management/Organizational competencies were identified. Other researchers have used similar categories for

organizing competency lists. In a study by Robinson and Barberis-Ryan (1995) nursing competencies were classified as technical, interpersonal, and critical thinking. Connelly, Yoder, and Miner-Williams (2003) utilized the categories of clinical/technical, critical thinking, organizational skills, and human relation skills as competency headings.

7. In relation to nursing practice in rural environments, this research promotes the recognition of rural nursing as a specialty. This conclusion is based on the limited amount of research that currently exists on the practice of rural nursing. Bushy (2000) stated that continued research in rural nursing is paramount to ensure this area of nursing is recognized as a specialty area of practice. Crooks (2004) believed that rural nursing has not been recognized as a specialty because nurses in the rural setting do not write about their practice. She went on to elaborate that recognition of nursing as a specialty will require more research in rural nursing and an elevation of knowledge in what constitutes rural nursing practice.

8. Rural nurses should be viewed as generalists rather than specialists. Several researchers have discussed how the rural nurse functions as a generalist (Bigbee, 1993; Bushy, 2000; Bushy & Bushy, 2001; Bushy & Leipert, 2005; Crooks, 2004; Drury, 2005; Eldridge & Judkins, 2003; Huttlinger, Schaller-Ayers, Lawson, & Ayers, 2003; Kenny & Duckett, 2003; Kramer, 1996; LaSala, 2000; Lee & Winters, 2004; Long, Scharff, & Weinert, 1997; Rosenthal, 2005). For example, in this study, competencies that addressed assessment across the life span, revealed that rural nurses can not specialize in the assessment of one age group but must be able to assess all age groups competently. Competencies in this study also emphasized the need for rural nurses to possess the ability to rapidly shift from one patient area to another, unlike other settings where the nurse would be assigned to one area only. These examples substantiate the rural nurse as

a generalist rather than a specialist. By identifying competencies specific to rural nursing, the role of the rural nurse can be confirmed as being more generalized as opposed to specialized. This research study sets forth such competencies, adds to the body of rural nursing research and illustrates the uniqueness of rural nursing.

9. In the Critical Access Hospital environment, the list of competencies identified in this study can be used as a framework to ensure the competency of nursing staff. This conclusion is the result of this Delphi panel's consensus on 103 rural nurse competencies. Newhouse (2005) noted that there are several issues that rural hospitals face. One of these issues pertains to nursing infrastructure and how nurse administrators in the rural setting can ensure that clinical competence in the rural environment is maintained. This conclusion was substantiated by members of the panel who suggested that these competencies can be incorporated into yearly nurse evaluations or annual competency assessments. Also this listing may used by Directors of Nursing to plan appropriate and meaningful in-service education programs.

10. Nurse educators must recognize the differences in rural nursing practice and incorporate these competencies in clinical experiences. Classroom lectures and clinical experiences in nursing schools normally focus on nursing practice in the urban setting. According to Bushy (2000) nursing education programs are often urban based and students have a lack of exposure to what constitutes rural practice. Also nursing texts seldom address health care and nursing issues specific to rural practice. Kenny and Duckett (2003) argued that university nursing programs have not acknowledged the differences between urban and rural nursing practice. Increasing the amount of rural nursing research will guide the nurse educator in incorporating rural practice into the

nursing curriculum. Educators can better prepare nursing students for the diverse, complex, and demanding role of rural nursing practice.

11. Collaboration between hospital nursing directors and nursing faculty on what constitutes a competent nursing graduate must occur. Anders, Douglas, and Harrigan (1995) found there were significant differences in opinion between nursing faculty and hospital nursing administrators on what constitutes a competent new graduate. These authors emphasized the need for schools of nursing and hospitals to collaborate and come to a consensus as to what constitutes competency. In order for collaboration to take place, research on competency identification must be available to nursing faculty and hospital nursing administration. This research adds to the body of knowledge on competency identification in nursing.

There are several implications for further research based on this study. This study utilized a Delphi panel of Directors of Nursing. This study could be replicated utilizing staff nurses as members of the Delphi panel. This would allow a different perspective on what constitutes a Critical Access Hospital nurse competency. Utilizing Benner's (1984) model, rural nurse competencies identified in this study could be categorized according to novice, intermediate, and expert. Research could also be conducted that would include evaluating competencies in terms of positive patient outcomes. Studies comparing competencies needed by rural and urban nurses would add to the body of literature on competency identification. Finally, future studies could identify the best method for implementing and promoting competent nurse practice in the rural nursing environment.

Based on the findings of this study and the ever changing health care milieu, this researcher does recommend that this study be replicated at least every three years. Advanced technology, changing economic and political climates, and national

catastrophes can greatly impact rural nursing practice. It is important that if rural nursing is to receive the recognition that it so deserves, steps must be taken to keep this special field of nursing in the forefront of health care research.

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APPENDIX A

LETTER OF INTRODUCTION TO POTENTIAL PANELISTS

June 1, 2006

Dear Director of Nursing,

My name is Elaine Hurme and I am currently pursuing a Ph.D. from the School of Human Resource Education and Workforce Development at LSU. I am also Director of Nursing at Pointe Coupee General Hospital in New Roads. I am interested in identifying nursing competencies most associated with good nursing practice in Critical Access Hospitals (CAH). Because of your expertise and working knowledge of the CAH environment, I need your assistance in delineating those competencies unique to rural nursing. All correspondence with me is confidential.

The type of research methodology chosen for this study is the Delphi. If you chose to participate you will be a member of a panel of experts who will identify rural nursing competencies. The study will consist of three rounds. During Round One you will respond to two focus questions. I will take your responses and compile a survey instrument. Round Two will involve assigning levels of importance to each competency. I will take this information from Round Two and construct a final survey instrument which I will again ask you to assign levels of importance to each competency. Participation in this study will take a considerable amount of time and effort. The information gained from such a research project will exemplify the uniqueness, challenges, and demands of rural nursing.

All responses to the questionnaires will be kept confidential. Subjects may choose not to participate or may withdraw at anytime from the study. If the results of this study are published, no names or identifying information will be included in the article. If you

have any questions or concerns regarding subject's rights, you may contact Dr. Robert C. Mathews, Louisiana State University Institutional Review Board, at (225) 578-8692.

If you agree to participate in this study please respond to me via e-mail at fhurme1@lsu.edu. **Please state in your e-mail that you wish to participate in the identification of nursing competencies.** If you wish to speak to me personally, please feel free to contact me at (225) 638-5773. I look forward to your response. Thank you very much for your time and efforts. Sincerely, Elaine Hurme

APPENDIX B

ROUND ONE LETTER OF INSTRUCTION

June 11, 2006

Dear Panelists,

The purpose of this research is to identify nursing competencies most associated with good nursing practice in Critical Access Hospitals. Please response to the following focus questions:

"What are the job skills/competencies needed by nurses employed in rural Critical Access Hospitals?"

"Please indicate whether the competency is considered: a) a clinical/technical skill; b) a critical thinking skill; c) a communication/interpersonal skill; or d) management/organizational skill?"

Your participation in this research is vital to rural nursing practice in Critical Assess Hospitals. Thank you for your dedication to the practice of rural nursing. Please complete the Round One Instrument and email it within five working days to fhurme1@lsu.edu. If you wish to speak to me personally, please feel free to contact me at (225) 638-5773.

Sincerely,

Elaine Hurme

APPENDIX C

ROUND ONE INSTRUMENT

FOCUS QUESTIONS

"What are the job skills/competencies needed by nurses employed in rural Critical Access Hospitals?"

"Please indicate whether the competency is considered: a) a clinical/technical skill; b) a critical thinking skill; c) a communication/interpersonal skill; or d) a management/organizational skill?"

Category of Job Skill/Competency	List of Job Skills/Competencies
1. Clinical/Technical Skill	Example: Possesses the ability to perform a clinical assessment on individuals from all age groups.
2. Critical Thinking Skill	Example: Possesses the ability to care for a highly varied group of patients with different diagnoses all located in one clinical area.
3. Communication/Interpersonal Skill	Example: Possesses the ability to verbally communicate in an unbiased manner with individuals from all socioeconomic and educational backgrounds.
4. Management/Organizational Skill	Example: Demonstrate flexibility and organizational skills in rapidly changing situations.

APPENDIX D

FRIENDLY REMINDER

June 16, 2006

Dear DONs,

Just a friendly reminder to please complete your survey questions regarding rural nurse competencies. I know all of you have very busy schedules. I appreciate any assistance you can offer. Thank you very much, Elaine Hurme

APPENDIX E

COLLEAGUE LETTER OF SUPPORT

June 28, 2006

Dear Directors of Nursing,

As you all know Elaine Hurme is pursuing a PhD at LSU. Her topic is identifying nurse competencies specific to Critical Access Hospitals. I am asking you all to respond to the survey mailed to you by Elaine Hurme. This is an excellent opportunity for Critical Access Hospitals in Louisiana to add to the research in rural nursing. Thanks to all.

Dorie

APPENDIX F

FRIENDLY REMINDER 2

June 30, 2006

Dear DONs,

I am sending a friendly reminder asking you to please complete the Round One questions that I sent a few weeks ago. I certainly understand that all of you are very busy. I am counting on you to please help me complete this research study. Without your vital input, I cannot complete the process needed to graduate. Thank you so much for your time and consideration. If you have any questions, please feel free to contact me at (225) 638-5773. Thank you, Elaine Hurme

APPENDIX G

LETTER EXPLAINING STUDY DELAY

July 31, 2006

Dear DON's

I had to temporarily postpone my dissertation work due to a family illness. I am anxious to get back into my research and hopefully meet my December deadline as I had planned. I know we are all so busy but I really do need your assistance in this research. If you would please take a few minutes to respond to the questions that I sent you last month it would help me a great deal. Without your input, I can not proceed with my study. Thank you so much for your time and effort. If you have any questions you may call me at (225) 638-5773.

Sincerely, Elaine Hurme

APPENDIX H

LETTER EXPLAINING STUDY DELAY 2

August 15, 2006

Dear Panelists,

Once again I had to postpone my research due to family illness. Everything is going well for my mother once again. Thank you all for your kind words of encouragement. Anyway, I am ready to get back on my research. I am in the process of compiling the information for the Round Two Instrument. I will hopefully have it to you within the next 2-3 weeks. Thank you so much for your patience. If you have any questions please don't hesitate to e-mail me or call me at (225) 638-6873. Thank you, Elaine Hurme

APPENDIX I

ROUND TWO LETTER OF INSTRUCTION

September 5, 2006

Dear Panelists,

Thank you so much for your participation, leadership and guidance in this research study. Identifying competencies particular to the demands of rural nursing will assist in educating the nursing community on the uniqueness of this nursing specialty area.

I have compiled the information you sent me from Round One into a survey instrument. This Round Two phase will require that you rate each item on a scale of importance. For clarification purposes, five is the most important and one is considered not important.

Please complete the Round Two Instrument and e-mail it to me within five working days to fhurme1@lsu.edu. If you wish to speak to me personally, please feel free to contact me at (225) 638-5773. Thank you for your commitment to the practice of rural nursing.

Sincerely,

Elaine Hurme

APPENDIX J

ROUND TWO INSTRUMENT

Please rate each job skill/competency. The selections are 5 = high importance; 4 = substantial importance; 3 = moderate importance; 2 = low importance; and 1 = no importance. When you have completed the instrument, e-mail it to me at fhurme1@lsu.edu.

FOCUS QUESTIONS

"What are the job skills/competencies needed by nurses employed in rural Critical Access Hospitals?"

"Please indicate whether the competency is considered: a) a clinical/technical skill; b) a critical thinking skill; c) a communication/interpersonal skill; or d) a management/organizational skill?"

	Category and List of Job Skill/Competency - Clinical/Technical	**Rating**
1	Possesses the ability to perform a physical assessment on patients of all ages.	
2	Completes a nursing assessment within an established timeframe of admission to serve as a guide for the implementation of the patient's care plan.	
3	Knowledgeable of emergency procedures in all areas of the hospital, not only those that present to the Emergency Department.	
4	Able to perform basic nursing procedures/treatments appropriate to the patient's diagnosis and age group.	
5	Knowledgeable of medications action and side effects.	
6	Knowledgeable of medication administration guidelines for all age groups.	
7	Implements the nursing process to provide quality care based on assessment, diagnosis, planning, intervention, and evaluation.	
8	The nursing diagnosis is derived from the patient's health status data.	
9	Applies the nursing diagnosis and institutes monitoring nursing interventions to improve patient outcomes.	
10	Completes and continually updates the patient	

	care plan according to the changing patient needs.	
11	Evaluates patient responses to nursing interventions and communicates responses through legible documentation and reporting.	
12	Data collection related to the health status of the patient is systematic and continuous.	
13	Goals for nursing care are formulated and stated in terms of observable outcomes.	
14	The patient's plan of care is continually evaluated.	
15	The patient's response is compared with observable outcomes, which are specified in the care plan goals.	
16	Reassessment, recording of priorities, new goal setting, and revision of the care plan is a continuous process.	
17	Performs nursing procedures based on the standards of care, hospital policies, and medical and nursing protocols.	
18	Possesses a working knowledge and the ability to perform/initiate respiratory therapy and phlebotomy measures so as not to delay patient care and treatment while on call services are being activated.	
19	Possesses the knowledge and ability to perform triage/emergency clinical nursing assessments on individuals of all ages.	
20	Is ACLS and PALS certified.	
21	For emergency department purposes, is TNC certified.	
22	Able to operate equipment utilized in patient care such as infusion pumps, suction apparatus, lifters, telemetry monitors, and defibrillators.	
23	Knowledgeable of basic dysrhythmia recognition.	
	Category and List of Job Skill/Competency - Critical Thinking	
1	Possesses the ability to care for a highly varied group of patients with different diagnoses all located in one clinical area.	
2	Able to successfully delegate lower level of care activities.	
3	Able to meet the needs of patients utilizing limited resources.	
4	Possesses the ability to recognize any changes	

	in a patient's condition and provide the most appropriate care at any given time.	
5	Able to perform an assessment that collects in depth information about a patient's situation and functioning and then develop a plan of care based on this assessment.	
6	Identifies specific goals, objectives, and actions designed to meet the patient's needs.	
7	Executes specific patient care activities and/or interventions that will lead to accomplishing the goals set forth in the care plan.	
8	Coordinates, organizes, secures, integrates, and modifies the resources necessary to accomplish the goals set forth in the care plan.	
9	Monitors the results of care provided in order to determine the care plan's effectiveness.	
10	Evaluates the care plan at appropriate intervals to determine the plan's effectiveness in reaching desired outcomes and goals.	
11	Applies cognitive, technical, and interpersonal skills in the overall coordination of patient care.	
12	Ensures the use of good judgment in clinical decision making.	
13	Appropriately delegates and prioritizes patient care activities, and implements the nursing process to ensure that each patient is provided quality patient care.	
14	Follows organizational policies/plans/procedures for safety, security, hazardous materials and waste, emergency preparedness, fire/life safety, medical equipment management, utility system management, and infection control.	
15	Able to successfully manage the patient's medication regimen.	
16	Utilizes broad pharmaceutical knowledge related to the prevention of drug interactions, and medication errors.	
17	Demonstrates initiative in providing patient emergent or non-emergent care within the scope of nursing practice.	
18	Must have a clear understanding of all disease processes and individualize these processes in	

	planning patient care (i.e. wound care, fall prevention).	
19	Possesses the ability to recognize and respond to emergency situations occurring in all age groups.	
20	Knowledgeable regarding the discharge process of patients with special needs i.e. Home Health, Hospice, Nursing Home, patients requiring medical equipment at home, mental health issues, etc.	
21	Maintains clinical skills necessary to provide safe, effective nursing care without the availability of pharmacy or respiratory therapy 24 hours a day.	
22	Knowledgeable in regards to intravenous therapy and the maintenance of peripheral and central venous catheters. (i.e. the delivery of IV drugs, drips, blood and blood products).	
23	Knowledgeable of Safety, Risk Management, Infection Control, and Emergency Preparedness procedures.	
24	Demonstrates the ability to work with minimum supervisory guidance in exercising independent judgment.	
25	Analyzes problems and suggests appropriate solutions, taking action within the limits of authority.	
	Category and List of Job Skill/Competency - Communication/ Interpersonal	
1	Possesses the ability to verbally communicate in an unbiased manner with individuals from all socioeconomic and educational backgrounds.	
2	Possesses the ability to communicate clearly and effectively with other members of the hospital team.	
3	Possesses the ability to communicate effectively with nurses from other health care institutions that do not appreciate the role of the rural nurse.	
4	Able to communicate with other health care providers in order to coordinate care after the hospital stay.	
5	Knowledgeable of proper documentation guidelines	
6	Strives for excellence, demonstrates high performance in all endeavors.	

7	Maintains high personal and professional standards.	
8	Makes a positive first impression a personal priority, and is honest.	
9	Exhibits a customer-focused attitude toward others.	
10	Demonstrates positive interpersonal communication skills and projects a positive attitude.	
11	Exhibits a professional image, good work ethics and serves as a positive role model to staff.	
12	Fosters a team-focused, interdisciplinary approach to all patient care activities.	
13	Gains the patient's confidence with professional considerate nursing care.	
14	Refers to age specific competencies when teaching the patient and family.	
15	Demonstrates knowledge of Information Management requirements specific to the department and the hospital.	
16	Maintains confidentiality of patient, physician and employee information in accordance with standards established by the hospital in compliance with regulatory agency requirements i.e., HIPAA regulations.	
17	Adheres to regulatory agency documentation requirements.	
18	Utilizes resources available to communicate with hearing/sight impaired individuals.	
19	Demonstrates compassion and respect for the staff, patient and patient's family.	
20	Is a patient advocate regardless of the patient's age, culture, or religious background.	
21	Acts as a liaison between the patient and physician, and other hospital departments.	
22	Accepts phone and verbal orders appropriately, transcribing and implementing orders correctly and in a timely manner.	
23	Clarifies unclear, illegible, or non-specific physician orders prior to implementation.	
24	Uses good listening skills, and communicates in an open and responsible, professional manner.	
25	Develops, initiates, and participates in the process of patient education, discharge	

	instructions, and preparation of the patient/significant other for discharge or transfer.	
26	Cooperates with staff to achieve department goals and promote good employee relations, interdepartmental relations and public relations.	
27	Consistently demonstrates interest, caring and consideration in dealing with the patients, significant others, and co-workers.	
	Category and List of Job Skill/Competency - Management/Organizational	
1	Demonstrates flexibility and organizational skills in rapidly changing situations.	
2	Possesses the ability to manage the care of patients being cared for by different physicians.	
3	Possesses the ability to organize the patient care load utilizing the sometimes limited available staff.	
4	Possesses the ability to manage ancillary departmental problems after routine office hours.	
5	Demonstrates proper time management skills in order to complete tasks in a timely manner.	
6	Effectively utilizes certain key skills, including communication, critical thinking, negotiation, collaboration, as well as patient advocacy and empowerment.	
7	Coordinates the individual patients' needs within the context of all outside influences, including the health care delivery system, the community, and the payer source.	
8	Functions as an integral member of the hospital's leadership team.	
9	Ensures a high quality of patient care through appropriate human and material resource allocation.	
10	Ensures effective and efficient utilization of all hospital resources, human and material.	
11	Assists in the promotion and maintenance of high quality care through the analysis, review, and evaluation of clinical practice.	
12	Ensures that the services delivered to patients are medically necessary and are appropriate for the diagnosis, condition, or medical problem.	

13	Considers under-utilization as well as over-utilization of resources in the evaluation of patient care.	
14	Demonstrates the ability and flexibility to recognize and accept changing conditions while continuing to perform to the best of one's ability.	
15	Strives to promote a positive attitude with the team and accepts additional assignments willingly.	
16	Delegates needs/tasks appropriately.	
17	Knowledgeable of the facilities' organizational structure, including policies and procedures.	
18	Demonstrates the ability to function under pressure during a disaster maintaining a calm, controlled demeanor.	
19	Makes clinical assignments based on the patient's needs and circumstances.	
20	Able to work independently of senior staff.	
21	Aware of professional and personal limitations and how to access assistance when needed.	
22	Possesses the ability to rapidly shift from one patient care area to another (i.e. Operating Room to Emergency Department).	
23	Demonstrates the ability to multi-task.	
24	Demonstrates initiative by active participation in staff meetings, committees, and projects.	
25	Participates in the problem-solving process associated with Quality Improvement.	
26	Adapts easily to changes in work assignments and environment and is willing to assume additional responsibility and learn new procedures.	

APPENDIX K

FRIENDLY REMINDER 3

September 11, 2006

Dear Panelists,

Thank you for your commitment and interest in this research. I am awaiting your responses on the Round Two survey. I am anxious to proceed with this research knowing that identification of competencies is needed in the Critical Access Hospital setting. If you have any questions please e-mail me or call me at (225) 638-5773. Thank you.

Elaine

APPENDIX L

ROUND THREE LETTER OF INSTRUCTION

October 2, 2006

Dear _____,

Thank you for your continued participation in this project. This is the third and final round of the study! Attached is the third instrument which contains the following:

1) In the first column is the category of job skill/competency;
2) The second column contains the overall group median rating of the job/skill competency on the Round 2 instrument.
3) Your rating of this job skill/competency on the Round 2 instrument is noted in column three. If your rating is within one scale rating (± 1) of the group median then your rating is considered in agreement or consensus with the group median. You do not need to make adjustments related to these competencies unless you wish to change your rating.

Examine those competencies with an asterisk next to your round 2 rating. Either rate the competency within one scale interval of the median or place your round 2 rating in this column and indicate the reason as to why you believe your rating is more realistic.

Please complete the Round Three instrument and email it to me within five working days to fhurme1@lsu.edu. If you wish to speak to me personally, please feel free to contact me at 225 638-5773. Once again thank you for your diligence and commitment to this research project.

Sincerely,

Elaine Hurme

APPENDIX M

ROUND THREE INSTRUMENT

As you complete the third instrument please remember to keep the focus questions of this research in mind. Please rate the job skill/competency in the fourth column. If you rate the job skill/competency more than one (1) point differently in either direction, please indicate the reason why you changed the rating.

FOCUS QUESTIONS

"What are the job skills/competencies needed by nurses employed in rural Critical Access Hospitals?"

"Please indicate whether the competency is considered: a) a clinical/technical skill; b) a critical thinking skill; c) a communication/interpersonal skill; or d) a management/organizational skill?"

Clinical/Technical Skill

Competency	**Overall Group Median**	**Your Round 2 Rating**	**Your Current Rating**	**Brief Explanation**
Possesses the ability to perform a physical assessment on patients of all ages.	5			
Completes a nursing assessment within an established timeframe of admission to serve as a guide for the implementation of the patient's care plan.	5			
Knowledgeable of emergency procedures in all areas of the hospital, not only those that present to the Emergency Department.	5			
Able to perform basic nursing procedures/treatments appropriate to the patient's diagnosis and age group.	5			
Knowledgeable of medications action and side effects.	5			
Knowledgeable of medication administration guidelines for all age groups.	4			
Implements the nursing process to provide quality care based on assessment, diagnosis, planning, intervention, and evaluation.	4			
The nursing diagnosis is derived from the patient's health status data.	4			
Applies the nursing diagnosis and institutes monitoring nursing	5			

interventions to improve patient outcomes.				
Completes and continually updates the patient care plan according to the changing patient needs.	5			
Evaluates patient responses to nursing interventions and communicates responses through legible documentation and reporting.	5			
Data collection related to the health status of the patient is systematic and continuous.	4			
Goals for nursing care are formulated and stated in terms of observable outcomes.	4			
The patient's plan of care is continually evaluated.	4			
The patient's response is compared with observable outcomes, which are specified in the care plan goals.	4			
Reassessment, recording of priorities, new goal setting, and revision of the care plan is a continuous process.	4			
Performs nursing procedures based on the standards of care, hospital policies, and medical and nursing protocols.	5			
Possesses a working knowledge and the ability to perform/initiate respiratory therapy and phlebotomy measures so as not to delay patient care and treatment while on call services are being activated.	5			
Possesses the knowledge and ability to perform triage/emergency clinical nursing assessments on individuals of all ages.	5			
Is ACLS and PALS certified.	5			
For emergency department purposes, is TNC certified.	4			
Able to operate equipment utilized in patient care such as infusion pumps, suction apparatus, lifters, telemetry monitors, and defibrillators.	5			
Knowledgeable of basic dysrhythmia recognition.	5			

Critical Thinking Skills

Competency	Overall Group Median	Your Round 2 Rating	Your Current Rating	Brief Explanation
Possesses the ability to care for a highly varied group of patients with different diagnoses all located in one clinical area.	5			
Able to successfully delegate lower level of care activities.	4			
Able to meet the needs of patients utilizing limited resources.	5			
Possesses the ability to recognize any changes in a patient's condition and provide the most appropriate care at any given time.	5			
Able to perform an assessment that collects in depth information about a patient's situation and functioning and then develop a plan of care based on this assessment.	4			
Identifies specific goals, objectives, and actions designed to meet the patient's needs.	4			
Executes specific patient care activities and/or interventions that will lead to accomplishing the goals set forth in the care plan.	4			
Coordinates, organizes, secures, integrates, and modifies the resources necessary to accomplish the goals set forth in the care plan.	4			
Monitors the results of care provided in order to determine the care plan's effectiveness.	4			
Evaluates the care plan at appropriate intervals to determine the plan's effectiveness in reaching desired outcomes and goals.	4			
Applies cognitive, technical, and interpersonal skills in the overall coordination of patient care.	5			
Ensures the use of good judgment in clinical decision making.	5			
Appropriately delegates and prioritizes patient care activities, and implements the	5			

nursing process to ensure that each patient is provided quality patient care.				
Follows organizational policies/plans/procedures for safety, security, hazardous materials and waste, emergency preparedness, fire/life safety, medical equipment management, utility system management, and infection control.	5			
Able to successfully manage the patient's medication regimen.	5			
Utilizes broad pharmaceutical knowledge related to the prevention of drug interactions, and medication errors.	5			
Demonstrates initiative in providing patient emergent or non-emergent care within the scope of nursing practice.	5			
Must have a clear understanding of all disease processes and individualize these processes in planning patient care (i.e. wound care, fall prevention).	5			
Possesses the ability to recognize and respond to emergency situations occurring in all age groups.	5			
Knowledgeable regarding the discharge process of patients with special needs i.e. Home Health, Hospice, Nursing Home, patients requiring medical equipment at home, mental health issues, etc.	4			
Maintains clinical skills necessary to provide safe, effective nursing care without the availability of pharmacy or respiratory therapy 24 hours a day.	5			
Knowledgeable in regards to intravenous therapy and the maintenance of peripheral and central venous catheters. (i.e. the delivery of IV drugs, drips, blood and blood products).	5			
Knowledgeable of Safety, Risk Management, Infection Control, and Emergency Preparedness procedures.	5			
Demonstrates the ability to work with minimum supervisory guidance in exercising independent judgment.	5			
Analyzes problems and suggests appropriate solutions, taking action within the limits of authority.	4			

Communication/Interpersonal Skills

Competency	Overall Group Median	Your Round 2 Rating	Your Current Rating	Brief Explanation
Possesses the ability to verbally communicate in an unbiased manner with individuals from all socioeconomic and educational backgrounds.	4			
Possesses the ability to communicate clearly and effectively with other members of the hospital team.	5			
Possesses the ability to communicate effectively with nurses from other health care institutions that do not appreciate the role of the rural nurse	5			
Able to communicate with other health care providers in order to coordinate care after the hospital stay.	4			
Knowledgeable of proper documentation guidelines	5			
Strives for excellence, demonstrates high performance in all endeavors.	5			
Maintains high personal and professional standards.	5			
Makes a positive first impression a personal priority, and is honest.	5			
Exhibits a customer-focused attitude toward others	5			
Demonstrates positive interpersonal communication skills and projects a positive attitude.	5			
Exhibits a professional image, good work ethics and serves as a positive role model to staff.	5			
Fosters a team-focused, interdisciplinary approach to all patient care activities.	5			
Gains the patient's confidence with professional considerate nursing care.	5			
Refers to age specific competencies when teaching the patient and family.	5			
Demonstrates knowledge of Information Management requirements specific to the department and the hospital.	4			
Maintains confidentiality of patient, physician and employee information in	5			

accordance with standards established by the hospital in compliance with regulatory agency requirements i.e., HIPAA regulations.				
Adheres to regulatory agency documentation requirements.	5			
Utilizes resources available to communicate with hearing/sight impaired individuals.	5			
Demonstrates compassion and respect for the staff, patient and patient's family.	5			
Is a patient advocate regardless of the patient's age, culture, or religious background.	5			
Acts as a liaison between the patient and physician, and other hospital departments.	5			
Accepts phone and verbal orders appropriately, transcribing and implementing orders correctly and in a timely manner.	5			
Clarifies unclear, illegible, or non-specific physician orders prior to implementation.	5			
Uses good listening skills, and communicates in an open and responsible, professional manner.	5			
Develops, initiates, and participates in the process of patient education, discharge instructions, and preparation of the patient/significant other for discharge or transfer.	4			
Cooperates with staff to achieve department goals and promote good employee relations, interdepartmental relations and public relations.	4			
Consistently demonstrates interest, caring and consideration in dealing with the patients, significant others, and co-workers.	5			

Management/Organizational Skill

Competency	Overall Group Median	Your Round 2 Rating	Your Current Rating	Brief Explanation
Demonstrates flexibility and organizational skills in rapidly changing situations.	5			
Possesses the ability to manage the care of patients being cared for by different physicians.	5			
Possesses the ability to organize the patient care load utilizing the sometimes limited available staff.	5			
Possesses the ability to manage ancillary departmental problems after routine office hours.	5			
Demonstrates proper time management skills in order to complete tasks in a timely manner.	5			
Effectively utilizes certain key skills, including communication, critical thinking, negotiation, collaboration, as well as patient advocacy and empowerment.	4			
Coordinates the individual patients' needs within the context of all outside influences, including the health care delivery system, the community, and the payer source.	4			
Functions as an integral member of the hospital's leadership team.	4			
Ensures a high quality of patient care through appropriate human and material resource allocation.	4			
Ensures effective and efficient utilization of all hospital resources, human and material.	4			
Assists in the promotion and maintenance of high quality care through the analysis, review, and evaluation of clinical practice.	5			
Ensures that the services delivered to patients are medically necessary and are appropriate for the diagnosis, condition, or medical problem.	4			

Considers under-utilization as well as over-utilization of resources in the evaluation of patient care.	4			
Demonstrates the ability and flexibility to recognize and accept changing conditions while continuing to perform to the best of one's ability.	5			
Strives to promote a positive attitude with the team and accepts additional assignments willingly.	5			
Delegates needs/tasks appropriately	5			
Knowledgeable of the facilities' organizational structure, including policies and procedures.	5			
Demonstrates the ability to function under pressure during a disaster maintaining a calm, controlled demeanor.	5			
Makes clinical assignments based on the patient's needs and circumstances.	5			
Able to work independently of senior staff.	5			
Aware of professional and personal limitations and how to access assistance when needed.	5			
Possesses the ability to rapidly shift from one patient care area to another (i.e. Operating Room to Emergency Department).	4			
Demonstrates the ability to multi-task.	4			
Demonstrates initiative by active participation in staff meetings, committees, and projects.	5			
Participates in the problem-solving process associated with Quality Improvement.	5			
Adapts easily to changes in work assignments and environment and is willing to assume additional responsibility and learn new procedures.	4			

VITA

Florence Elaine Beauregard Hurme was born on September 30, 1955, in Alexandria, Louisiana. She graduated from Poland High School in May of 1973. In May 1977, Elaine received her Bachelor of Science in nursing from Northeast Louisiana University (currently the University of Louisiana at Monroe). She later received a Master of Science in nursing from Texas Women's University, Dallas Texas, in 1983. In May 2007, Elaine will receive her Doctor of Philosophy degree from the Louisiana State University School of Human Resource Education and Workforce Development.

Elaine has extensive clinical experience in medical-surgical, geriatric, and intensive care nursing. She has also served as an independent nurse consultant for long-term care facilities. In addition, she has over 14 years of nursing education experience, having served as course and level coordinator and Baccalaureate Curriculum Chairperson. She is currently employed as the Director of Nursing in a Critical Access Hospital.

Elaine resides in Ventress, Louisiana, with her husband of 25 years, Jeff. They have two children, Caroline and Charles. Elaine's special interests include fishing, gardening, reading, and home decorating.