

CERTIFIED NURSING ASSISTANTS' KNOWLEDGE, CONFIDENCE, AND EFFECTIVENESS
IN PROVIDING END-OF-LIFE CARE

A Major Paper Presented

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Abstract

The objective of this research was to explore the knowledge, confidence and effectiveness level of certified nursing assistants (CNAs) working with persons at end-of-life (EOL). This study was a descriptive, one-dimensional study that was conducted at a long term care (LTC) facility in Rhode Island. Participants answered demographic and confidence questionnaires and completed a short exam. The participants regularly provided care for persons at EOL, but received no additional training in that specialty. The 20 participants were from diverse backgrounds and cultures. The study was conducted over two months and results indicated perceived confidence and effectiveness levels higher than knowledge scores. Over fifty percent of the participants received a score of less than 70% on the knowledge exam. There were multiple findings that implied a need for further research. The number of individuals receiving EOL care in nursing homes has escalated over the past decade. To provide quality care to the terminally ill, including general comfort, pain relief, spiritual, and emotional support, it must be provided by qualified nursing assistants. It is the premise of the researcher that nursing assistants who provide the majority of care to patients at EOL require specialized training to meet both nursing assistant and patient needs. The findings from this study support this premise and have implications for research and practice in end-of-life care.

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Certified Nursing Assistants' Knowledge, Confidence and Effectiveness in
Providing End-of-Life Care

Statement of the Problem

As the population in the United States (US) ages, the number of older persons who will spend their final days in long term care (LTC) and skilled nursing (SN) facilities is increasing (Ersek, Grant & Kraybill, 2005). It is estimated that by 2040, about 40% of deaths will occur in these settings (Ersek et al., 2005). There are approximately two million certified nursing assistants (CNAs) in LTC and SN facilities (US Bureau of Labor & Statistics, 2006). CNAs play central roles in caring for dying persons across many settings, and are key members of palliative care teams, but their education and training in end-of-life (EOL) care is often inadequate (Miller & Han, 2008). Despite the importance of their role, there is limited research about the knowledge, confidence and effectiveness levels of CNAs in providing EOL care.

This investigator worked for the last seven years as a registered nurse (RN) team leader, supervising CNAs as they provided care to dying persons. Interactions with these aides revealed that some felt uncomfortable and unsure of their role and skills in the delivery of EOL care, and they demonstrated a lack of knowledge about what they could do to make the dying process easier and more comfortable.

Challenges to competency in providing EOL care include lack of specialized EOL education for CNAs who provide 70 - 90% of the direct care (Ersek & Wilson, 2003). CNAs who provide EOL care also struggle with personal issues concerning death and

dying and may have limited support to deal with their concerns (Curry, Middleton & Brown, 2006). Research reveals factors that enhance the delivery of high quality EOL care (Ersek et al., 2003), including support to nursing home staff to increase patient and family satisfaction and decrease hospital admissions (Miller & Han, 2008). Staff support includes education about interventions to manage common issues in EOL care, such as chronic pain and depression (Phillips, Davidson, Jackson & Kristjanson, 2007). Quantitative data on the needs of CNAs responsible for EOL care must be collected to facilitate the study of CNAs' level of comfort with the provision of EOL care (Nochomoritz et al., 2010).

The purpose of this research is to explore the self-reported knowledge, confidence, and effectiveness of CNAs providing direct care to nursing home residents at end-of-life.

Review of the Literature

Over a four month period, from April to June of 2010, several databases were searched, including PubMed, CINAHL, and WebMD. Key words including palliative care, nursing assistants, education, hospice and end-of-life care were added to the search. The investigation was further narrowed to focus on CNAs' self-reported knowledge and confidence.

The World Health Organization (WHO, 2002) defined EOL, palliative care as: "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual"(p. 1). Current research demonstrates that the number of older adults receiving EOL care in nursing homes is increasing, with recent estimates suggesting that by 2040, 40% of deaths will occur in such facilities (Ersek & Wilson, 2003). As the role of LTC facilities providing EOL care expands, these facilities will be challenged to provide services that meet the residents' and their families' expectations (Ersek & Wilson, 2003). There are a number of reasons why these care needs may not be met, and one of the reasons identified in the literature is that EOL education for nursing home staff may be inadequate (Curry, Middleton, & Brown, 2006).

Nochomovitz et al. (2010) investigated quality issues in EOL nursing care, and using a convenience sample of state tested nursing assistants (STNAs) from four nursing homes, measured the degree to which STNAs felt comfortable providing EOL care. The purpose of the study was to examine STNAs' experiences with EOL care through a survey-based quantitative study. Data pertaining to demographic information, personal characteristics and other variables pertaining to STNAs' overall perceived understanding of EOL care were collected. Personal characteristics including individuals' job satisfaction, spiritual well being, and the degree to which they felt supported by co-workers were measured using a 4-component scale created by the author. The internal reliability of the instrument was adequate (Cronbach's $\alpha = .84$). STNAs' experience with EOL care was measured by an investigator-developed instrument which used several components of the End-of-Life Nursing Education Consortium (ELNEC) curriculum. Analysis of the data included analyzing descriptive statistics as either dichotomous variables or as part of individual scales. Audio technology transformed the written questions into a version that was accessible to personal digital assistants (PDA), overcoming limitations of paper-based instruments that relied on reading comprehension and understanding of the English language. The findings indicated that STNAs' comfort level in providing EOL care varied widely. Skills and knowledge questions revealed 40% of the STNAs had a high level of comfort, while 30% rated themselves as having low levels of comfort in providing EOL care. The study limitations included the non-representativeness of the sample. Participants' education and job

experience were not consistent with national data. The researchers also selected four nursing homes that supported hospice care and were more likely to educate their STNAs in this specialty. The researchers concluded that there was a need to further examine this segment of the nursing home team, STNA's educational resources, and the support systems that are available to them, (Nochomovitz et al., 2010).

In a qualitative study of nursing home-based end-of-life care, Waldrop and Kirkendall (2009) explored how staff recognized when comfort measures were indicated and how they made a transition from routine to end-of-life care. This was an exploratory, descriptive study that involved qualitative methods and in-depth interviews. The study took place in a 122-bed skilled facility and had 42 participants, including nine nursing assistants. Interviews were conducted by the investigator or by a trained graduate research assistant using a structured interview grid consisting of both objective and open-ended questions. Transcripts of the audio-taped interviews were entered into Atlas ti software for final analysis. During the inductive phase, emerging themes were identified through open-ended questions, memo writing, and the documentation of analytic decisions. Theoretical concepts were considered, but not allowed to drive the development of themes. Deductive coding included specifying the properties of each category as well as creating a condition data matrix and summarizing and entering this into a grid. Each discipline was grouped separately so that subsets could be considered for similarities and differences. Prior to the study, themes were

presented to a group of staff members to eliminate researcher bias and verify that the conceptual framework was representative of current practice.

Results from this study revealed physical, behavioral, and social factors that staff perceived to be indicators of approaching death. These included anorexia, weight loss, alterations in breathing patterns, mottling, increased pain and mood change. Participants said that many, but not all, patients at end-of-life exhibit these signs. However, all the participants reported that when they noted any of the signs, they began comfort care. The participants also described interventions that were used for symptom management, and stressed the importance of family involvement when comfort care was initiated. The participants also identified the need for interdisciplinary teamwork. The authors thought that their findings built on and extended the results of previous studies, which had identified the need for a combination of palliative care and increased attention to emotional and personal care to improve nursing home-based end-of-life care. Study limitations included the use of only one site, the lack of input from residents and family members, and the possibility that non-participants' perspectives might have been different.

Whittaker, Kernohan, Hasson, Howard, and McLaughlin (2007) conducted a study in 48 nursing homes in Northern Ireland to explore the level of palliative care knowledge and to identify the educational needs of care assistants (CAs) who received minimal formal specialty training in EOL care. The researchers used an anonymous postal questionnaire that was sent to all CAs employed in the 48 homes during the

months of June to July, 2004. Existing research literature, key informants in palliative care, and pre-existing manuals on palliative care were used to develop the questionnaire, which explored knowledge and confidence, prior training and qualifications, and preferences for educational format. The questions consisted of open and closed-ended questions pertaining to palliative care. Data collection instruments were delivered to each nursing home for CA completion. All questionnaires were allocated a unique number and stored on a password-protected computer. The data were analyzed using the Statistical Package for the Social Sciences. To encourage response rates, telephone calls were made to nurse managers who acted as gate keepers for issuing the questionnaires.

There were 1135 questionnaires mailed out with a response rate of 45% (N = 510). More than one third of the participants were over 50 years of age and had one-to-five years experience working in nursing homes. Results indicated that only a small percentage of CAs had attended any palliative care training classes. The respondents indicated the conditions that would encourage them to attend training classes in EOL care and the relevance it had for them. Eighty-five percent of the participants indicated that they preferred classes to be conducted at their place of work and during working hours. A majority of respondents (n = 60%) recorded that they were confident in identifying and reporting symptoms to the charge nurse. More than half the sample (n = 60%) however, reported not being aware of the spiritual and cultural needs of residents and families, and a third reported difficulties communicating with residents

about death and dying. The researchers recommended that palliative care education and training be considered and developed at a national level. Study limitations included the fact that there was no systematic way of encouraging staff to complete the survey, therefore the results may have come from a biased sampling, as the most experienced and confident staff may have chosen to respond (Whittaker et al., 2007).

Ersek, Grant, and Kraybill (2005) conducted a research project describing the development and evaluation of a comprehensive curriculum designed to enhance EOL care capabilities of nursing assistants and licensed nurses working in these settings. The program was named the Palliative Care Education Research Team (PERT) project. The work involved 61 nursing assistants and 108 licensed staff from 44 facilities. Participants were recruited in three consecutive cohorts, with each cohort targeting nursing home facilities in different geographical areas of the Puget Sound, Washington, US. Staff from each facility were recruited through posters, in-services and memos. The educational curriculum was delivered in four day-long monthly sessions that were staggered to provide attendance flexibility. The project was designed to provide evidence that educating nursing staff in EOL knowledge and skills ultimately improved resident care. The PERT Program was a comprehensive curriculum based on an extensive literature review and a series of needs assessments. Adult learning strategies guided the curriculum development, and teaching strategies encompassed lecture, small group discussions, role modeling, and case studies (Ersek et al., 2005). The instruments used for this project consisted of a multiple choice examination that covered all major

aspects of EOL care. Internal consistency and acceptable reliability were demonstrated. There were also follow-up tools and focus group meetings after the completion of the study. Pre and post test scores were examined using t-tests to determine if the PERT Program was successful. A self-evaluation tool, used to rate effectiveness in providing EOL care once the program was completed, demonstrated significant increases. One limitation of the analysis included an inability to test resident outcomes. Another limitation of the data collection was that nurses and nursing assistants were not separated. The reason for keeping staff together was to encourage interaction and reduce barriers, as nursing assistants had previously reported a communication gap which resulted in less than ideal care. Another study limitation was that it involved four full day sessions which many nursing assistants could not attend due to their work and family schedules. Although gains were made in the knowledge exams, self-evaluations, and supervisor evaluations, the gains were modest. With 60% of the participants having six or more years of experience, the authors felt that targeting staff with less experience may have yielded more significant outcomes. The researchers reported a low response rate of 48% in the long term follow-up data, despite multiple attempts to contact participants.

An Australian study was conducted by Phillips, Davidson, Jackson, and Kristjanson (2007), in which researchers described nurses' and nursing assistants' perceptions of a multi-faceted palliative care intervention, the Residential-Palliative Approach Competency Project (R-PACProject), and identified areas to be addressed

during subsequent action research phases. Data collection and analysis were undertaken concurrently. A purposive sample (N = 28) of nurses and nursing assistants who provided care in nursing homes participated in a series of four focus groups. The nurses and nursing assistants who volunteered to contribute to the focus groups had previously participated in the intervention program. The focus groups met in local nursing home facilities in an attempt to promote a familiar and safe environment. Research team members facilitated the groups while a research assistant took detailed field notes. The following sample questions were asked in groups and in private; "What does the term a 'palliative approach' mean to you?" and "What do you think needs to happen to make the delivery of a palliative approach a reality in your facility?" Four themes emerged: (1) targeted education can make a difference, (2) a team approach is valued, (3) clinical assessment tools are helpful, and (4) using the right language is essential. There was a unanimous perception from the participants that they had acquired sufficient palliative care knowledge, skills, and confidence to enhance care delivery. A positive outcome was the perception by caregivers that their new knowledge and confidence prevented unnecessary resident hospitalizations. Nursing assistants also reported that they gained insight into the valuable role they played within the team. There were limitations to the study, such as constrained resources and the availability of participants, which influenced the composition of the focus groups. The researchers identified that they sent personal invitations to staff members who had participated in the intervention, perhaps suggesting that they were only looking for the

views of these caregivers. The researchers also acknowledged that nursing and nursing assistant staff perceptions may not necessarily reflect those of other providers, residents, or family members. Further research was recommended to explore the perceptions of those stakeholders.

Miller and Han (2008) conducted a study for the purpose of estimating the prevalence of special programs for hospice and palliative care in nursing homes in the US. The study included 1174 nursing homes in the 2004 National Nursing Home Survey (NNHS). The NNHS data were obtained by personal interviews with facility staff who were familiar with the sampled facility and the residents, and these staff members reviewed resident medical and other records. The interviewed subjects were asked about special programs present in their facilities that targeted hospice and palliative EOL care. Some of the variables included the types of facilities, profit or non-profit, chain affiliation, geographic location, and length of employment for nursing and nursing assistant personnel. The study listed the bivariate associations between basic facility characteristics with those facilities with special programs. This was the first study using nationally representative nursing home data to systematically examine the special program prevalence. One of the findings was that homes contracting with outside hospice agencies had a 1.7 times greater likelihood of having a specialized training program for nursing assistants. The geographic results suggested a 2.4 times greater likelihood of southern region nursing homes having a program than northeastern or mid-western homes. Researchers found that non-profit homes were two times more

likely to have the specialized training than private, for-profit facilities. This study provided data to document prevalence and to show a correlation between specialized staff training and hospice involvement; emphasizing comfort, pain relief, and emotional and spiritual support. Miller and Han (2008) acknowledged the study had limitations, such as a lack of information about the scope of the specialized training. The number of nursing home hospice patients sampled from the 2004 NHHS was inadequate to examine the impact of the programs on the quality of EOL care. The results also indicated that specialized palliative and hospice care training is essential to high quality EOL care, and that organizational structure must support programs targeting these skills.

Ersek and Wood (2008) described the development and evaluation of the Nursing Assistant Computerized Education Programme (NA-CEP), which is a computer-based palliative care curriculum for nursing assistants. The research was aimed at describing the development and evaluation of the NA-CEP program. The authors identified a problem with basic nursing assistant preparation in EOL care, and recommended continuing education by staff developers (Ersak & Wood, 2008). Researchers evaluated the NA-CAP program for this two phase study by recruiting 65 nursing assistants from various practice settings: long term care (n = 15), hospice agencies (n = 24), home health (n = 12), and acute care (n = 14). The sample consisted of experienced nursing assistants, with nearly 50% having six or more years in the role. The participants committed to at least six hours of study over the subsequent six weeks.

The evaluation instruments consisted of a demographic and computer-based questionnaire, a knowledge assessment exam, a self-evaluation of their clinical EOL skills pre and post program, and a NA-CEP rating of the program. The results indicated that baseline self-evaluation scores were moderately high (mean = 7.7, SD = 1.4), which reflected the substantial clinical experience in the sample. Post-NA-CEP self-evaluation scores increased significantly ($t = 5.1, p = 0.000$). An average percentage increase in knowledge scores was 6.5 (SD = 9.0). Baseline scores, which were the pre-test scores were significantly associated with years as a nursing assistant. Computer experience did not significantly affect exam scores. Results indicated that the NA-CEP evaluation was rated highly in terms of presentation and content. After using the program, participants increased their knowledge and perceived skills in caring for residents at end-of-life. Some of the advantages of this program included: multiple location sites and times convenient to learners, cost effectiveness, and allowance for participants to proceed at their own pace.

The literature reviewed identified deficits in CNA self-reported preparation to deliver EOL care. Researchers' recommendations prompted this investigator to explore the need for more specialty training and to validate the need for additional studies related to the perceived knowledge, confidence, and effectiveness of CNAs prior to development of an EOL program.

Next, the theoretical frameworks that guided this research will be presented.

Theoretical Frameworks

Two theoretical models provided the frameworks for this study: Knowles' process theory of adult education (Knowles, Holton, & Swanson, 2005) and Albert Bandura's theory of self-efficacy (1994). Malcolm Knowles viewed adult education as a process model and his assumptions about adult learning were directed by the notion that adults prefer a climate of physical comfort, mutual respect and trust, and openness and acceptance of differences. He believed that presenters need to be facilitators, allowing the learners opportunities to self-direct and be responsible for their own learning. Knowles' adult education assumptions included:

- adults need to know why they need to learn something,
- as people mature they move from dependence to being self-directed,
- as people mature they accumulate a large amount of experience,
- real life problems create a readiness to learn in the adult,
- as people mature they accumulate a different perspective,
- adults are motivated by a desire to solve immediate and practical problems

(Knowles et al., 2005, pp. 241-245).

According to Knowles et al., adults are problem oriented learners who welcome information that helps them to solve problems, and they learn best when they feel the knowledge will improve their own lives. Another assumption of Knowles adult learning theory is that adults have accumulated a vast amount of experience which can be a rich resource for learning, and they learn better when their own experiences are

incorporated into the learning process (McEwen & Wills, 2007). Knowles' idea of self-direction was included in his five step model: diagnosing learning needs, formulating learning needs, identifying human material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.

This researcher utilized Knowles' adult learning steps and applied them to the research process to assist in obtaining a valid evaluation of CNAs' confidence levels. The first step was to evaluate the knowledge, confidence, and effectiveness of the CNAs to determine their learning needs. This initial step could then be followed by choosing and implementing the appropriate learning strategies, and then evaluating their learning outcomes. Knowles' theory provided an understanding of why CNAs might be interested in participating in this study and why they would value this research. The researcher assumed that CNAs wanted to deliver high quality EOL care, but might not be aware of their knowledge deficits. The investigator also assumed that CNAs would welcome the opportunity to report and reveal how confident and effective they perceived themselves to be.

Bandura's theory of self-efficacy also provided a framework to guide this study. According to Bandura, self-efficacy is the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations (Bandura, 1994). Nursing assistants working with residents at EOL have varying degrees of self-efficacy, so this study measured perceived levels of confidence, to provide insight about this concept. According to Bandura's theory, self-efficacy, a social cognitive concept, is

the very foundation of human motivations and personal achievement. The CNAs' caretaking responsibilities and emotional association with death and the dying process create motivation for competence.

This research provided an opportunity to evaluate the knowledge, confidence, and effectiveness of nursing assistants in EOL care, and identified the need for a simple intervention program. Bandura's four sources of self-efficacy, which include mastery experience, social modeling, social persuasion, and psychological responses, likely influenced the CNAs responses to survey questions. According to Bandura, performing a task successfully strengthens the sense of self-efficacy. This may have contributed to study participants' confidence levels, as they had several years of experience in LTC and EOL care. CNAs also had opportunities to observe others providing successful, high quality EOL care, which may have increased their belief that they could do it too. Recognition and praise for CNA efforts, according to Bandura, would have helped them to overcome self-doubts. Finally, there is tremendous stress and emotion involved in the dying process, but CNAs may have developed their own coping mechanisms that may have determined how confident they felt.

Next, the methods used to guide this research will be presented.

Methods

Purpose

The purpose of this research was to explore the self-reported knowledge, confidence, and effectiveness of CNAs providing direct care to nursing home residents at end-of-life.

Design

A one-dimensional, non-experimental, descriptive design was employed for this study, using self-reported questionnaires to serve as a starting point for hypothesis generation.

Sample/Setting

This study included a convenience sample of 20 CNAs from a possible 39 who worked in one LTC facility in northern Rhode Island. The facility has 30 skilled nursing beds and is located on a campus that provides a continuum of care from independent living to assisted care, to rehabilitation, intermediate, and skilled care. CNAs are rotated to each of the areas to provide assistance on different levels. The participants were from diverse backgrounds of ethnicity and experience. Five of the subjects were Hispanic, ten were Black or African American and five were Caucasian. None of the residents at the facility were Black, African American, or Hispanic. There were no exclusion criteria. New CNAs were invited to participate if they were hired during the research period.

Recruitment

Permission was granted by the facility to perform the study and permission to conduct the research was requested and granted from the Institutional Review Board (IRB) at Rhode Island College (Appendix A). An IRB-approved informational letter was used to recruit participants by inviting them to join the study and explaining the purpose of the investigation (Appendix B). The letter was distributed via LTC facility mail at the time of CNA paycheck delivery. IRB-approved informational flyers (Appendix C) that identified the researcher, the purpose of the study, and the procedure to contact the researcher were displayed on the units and at the time clock. The administrative staff also made announcements of the study during staff meetings and training sessions. The recruitment letter and flyers clearly stated that participation was completely voluntary and the CNA's decision to participate, or not, would in no way affect his or her employment. If the CNAs were interested in participating, they were instructed to contact the researcher at the phone number or email address provided.

Procedures

Interested participants registered by contacting the researcher in person, via email or by phone. Before beginning, CNAs completed the IRB-approved consent form (Appendix D) and then completed questionnaires as described in the instruments section. The consent form was collected and stored separately from the other research data to provide anonymity. Each session allowed for participants to complete the

instruments and for the researcher to collect the data and answer any questions about the questionnaires.

The study was conducted over eight weeks. Sessions were held on two separate days of each of the two months. Originally, the sessions were scheduled for the second Tuesday and Friday of each month. On each day, two sessions were offered. The session times were 8:00 am to 9:00 am, and 8:30 pm to 9:30 pm for each designated day. This schedule provided eight different opportunities for a volunteer to rearrange work and home plans to allow participation in the study. Volunteers were provided with a designated room and refreshments to demonstrate appreciation for their participation. Coffee and pastry were served at the morning meetings, and pizza and soft drinks and coffee were served at the evening meeting. Nursing assistants did not receive compensation for their participation. Staffing difficulties caused by a virus in the facility necessitated the rescheduling of two of the sessions.

Instruments

The instruments included a researcher-developed demographic data collection tool that included information such as length of time working as a CNA, ethnicity, and primary language (Appendix E). Participants were not required to identify themselves by name.

Effectiveness in providing EOL care was evaluated using a self-evaluation, 14-item tool developed by Dr. Mary Ersek (2005) for the PERT Project, and used with her permission. The *Nursing Assistant Self-Evaluation of End-of-Life Skill measure*, (Appendix F) used a scale of 0 (not at all effective) to 10 (very effective). Sample questions included "How confident and effective do you feel...."

"caring for residents from different cultural groups at the end-of-life";

"discussing the goals of care with residents, families, and other team members";

"observing and reporting common end-of-life symptoms such as pain and shortness of breath".

The scales were developed to match PERT program objectives and were reviewed by both a nurse clinician and a nurse researcher. Summary scores were created by calculating the mean of all the items, thereby giving a range from 0 to 10, with higher scores indicating greater confidence in one's EOL skills. The alpha reliability coefficient for the CNA scale was 0.85 (Ersek et al., 2005).

EOL knowledge was assessed using a 23-item EOL care knowledge questionnaire, the *Nursing Assistant Knowledge Assessment Instrument*, (Appendix G),

which was developed by Dr. Mary Ersek (2005), and at the end of that study, and with Dr. Ersek's permission, adopted for use by the Hospice and Palliative Nurse Association (HPNA). The instrument was used as part of HPNA's quiz questions at the end of training modules. Permission was obtained to use the instrument from both HPNA and Dr. Mary Ersek. The instrument employed multiple choice questions that covered all major aspects of EOL care. The questions were developed according to established criteria for exam construction. The authors developed a grid to match questions with course objectives, thereby ensuring that the exams reflected the full range of program content. The PERT multiple choice exam was reviewed by an educational consultant and was piloted by nursing assistants from one facility. The internal consistency of the EOL knowledge exams was evaluated using the Kuder-Richardson formula (KR20). The CNA exam demonstrated acceptable reliability with a KR20 = .7.

The knowledge questionnaire consisted of a total of 23 items. Examples of questions included:

1. An unconscious patient is no longer speaking. What aspect of care is still important?
 - A. Observing for pain
 - B. Frequent vital signs
 - C. Daily weighing
 - D. Encouraging oral fluids

2. What best describes the nursing assistant role in EOL care?
- A. Works independently with the patient and family
 - B. Primarily assists with the emotional needs of the patient
 - C. Provides comfort care to the patient before and at the time of death
 - D. Administers medical treatments to the patient

The completed measures were collected at the end of each session and were kept in separate folders in a locked box and in the sole possession of the researcher, separate from the consent forms.

Data Analysis

Descriptive statistics were calculated on all of the study variables. The demographic data included percentage calculations for each variable, and the confidence questionnaires included the mean and standard deviation for each question. For the knowledge tests; mean, standard deviation and percentages were calculated.

Results

Demographic data, collected from the participants are illustrated in Table 1.

Table 1

Demographic Data for Study Participants (N = 20)

Variables	Percentage	n
Years working as a C.N.A.		
< 1	0	0
1-2	0.10	2
3-5	0.20	4
6-10	0.30	6
> 10	0.40	8
Primary Language		
English	0.65	13
Other	0.35	7
Ethnicity		
Hispanic/Latino	0.25	5
Not Hispanic/Latino	0.75	15
Gender		
Male	0.2	4
Female	0.8	16
Race		
Caucasian	0.30	6
Black or African American	0.45	9

The data demonstrate that the participants were ethnically diverse. Five of the 20 participants were Hispanic, 10 were Black or African American, and five were Caucasian. The 20 CNAs who participated reported extensive experience in LTC: Fourteen had over six years experience and eight had more than 10 years of experience.

Table 2 illustrates the CNAs' level of confidence and effectiveness in response to the 10 items of the *Nursing Assistant Self-Evaluation of End-of-Life Skill measure*.

Responses ranged from zero to 10 and were regrouped in the following categories: 0-3, 4-6, and 7-10.

Table 2

CNAs' Level of Confidence and Effectiveness When Providing EOL Care

CONFIDENCE AND EFFECTIVENESS	0 - 3		4 - 6		7 - 10	
QUESTIONS	n	%	n	%	n	%
Communicating with terminally ill	1	(5)	3	(15)	16	(80)
Observing & reporting symptoms of EOL	1	(5)	0	(0)	19	(95)
Observing & reporting EOL signs	0	(0)	1	(5)	19	(95)
Using non-drug therapies/pain & nausea	0	(0)	4	(25)	16	(75)
Recognizing/respecting spiritual practices	0	(0)	0	(0)	20	(100)
Providing emotional support residents/families	0	(0)	4	(25)	16	(75)
Caring for residents from different cultural groups	0	(0)	1	(5)	19	(95)
Coping with family/resident conflicts	2	(10)	7	(35)	11	(55)
Caring for and preparing the body at death	0	(0)	4	(25)	16	(75)
Discussing goals of care w/residents and families	1	(5)	2	(10)	17	(85)
Meeting own needs while providing EOL care	0	(0)	0	(0)	20	(100)
Discussing role of hospice in EOL care	1	(5)	7	(35)	12	(60)
Providing physical care to dying residents	0	(0)	0	(0)	20	(100)
Working with team to provide effective care	0	(0)	0	(0)	20	(100)

*These items were scored on a scale of 0 (not at all effective) to 10 (extremely effective)

Scores demonstrated lower levels of confidence in areas related to discussing the role of hospice and coping with resident and family conflict. A majority of participants (86%) responded with a score of seven or above (on a zero-to-ten scale) in 85% of the confidence questions. Scores of 95% or higher were reported related to questions about observing and reporting symptoms of EOL, signs of EOL, teamwork,

providing physical care to the dying resident, meeting self care needs, and recognizing and respecting spiritual practices.

CNA scores on the knowledge measures are displayed in Table 3.

Table 3.

CNAs' EOL Knowledge Scores (N =20)

Below 60		60%-69%		70%-79%		80-89%		90%+	
n	%	n	%	n	%	n	%	n	%
3	(15)	10	(50)	3	(15)	2	(10)	2	(10)

Mean = 70.43; SD = 11.49

Over 50% of participants failed to answer 70% of the knowledge questions correctly. Seven participants had more than 70% of the answers to the knowledge questions correct, with only two answering 90% of the knowledge questions correctly.

Next, the research summary and conclusions will be presented.

Summary and Conclusions

The number of older adults dying in LTC facilities continues to increase and there is sufficient evidence to support the need for specialized EOL staff education (Ersek et al., 2005). There has been limited but consistently reported findings that support a need for EOL education specifically for CNAs (Whitaker et al., 2010). This study explored the knowledge, confidence and effectiveness of CNAs in providing EOL care in a LTC facility. The study was approved by the Rhode Island College Institutional Review Board. Twenty CNA participants were recruited to complete demographic, confidence and effectiveness, and knowledge questionnaires for research purposes. Study results indicated that participants were from diverse backgrounds of ethnicity and experience. A majority of participants (86%) reported seven or above (on a zero-to-ten scale) in 85% of the confidence questions. These findings are consistent with previous research that also indicated higher levels of confidence and lower levels of knowledge on CNA pre-testing results (Ersek et al., 2005). Results of the knowledge exam for this study revealed that less than 50% of the CNA participants were able to answer 70% or more of the questions correctly.

This study contributed knowledge to an under-studied area, EOL care provided by CNAs in LTC facilities. The research supported the value of the topic of EOL care, as well as the focus on under-recognized members of the EOL team, the CNAs. The limitations of this research included data collection in only one facility, limiting the ability to generalize to other nursing homes, and a small CNA sample size (N = 20).

Anonymity was protected, but important demographic information was not collected, such as the age of the participants and their educational background. Information about where participants received their CNA training, and if they had participated in other EOL educational programs, would have been useful. All CNAs employed at the facility were invited to participate, but the perspectives of non-participants may have been different than those who participated. The ethnic diversity of the participants may have influenced findings, but data were not collected in a way that allowed for further analysis. Seven of the participants did not speak English as their primary language, which may have contributed to the lower scores on the knowledge tests. The confidence and effectiveness scores might have been useful for targeting areas needed for education and training, but while the confidence scores were high, the knowledge scores were overall quite low. The study contributed to previous research by validating that CNA knowledge deficits likely exist and that further education and research in EOL care are needed. It is critical for the quality of EOL care that there is a sustained commitment to professional development, particularly at the CNA level.

Next, recommendations and implications for advanced practice nursing will be discussed.

Recommendations and Implications for Advanced Practice Nursing

The role of the nursing assistant as an EOL care provider has expanded, but the training in this specialty area has not kept pace with the demand for high quality care. There are opportunities to enhance EOL care, including educational policy changes, increased funding for educational programs, and hospice certification for CNAs. Financing of these opportunities must be focused on changes most likely to improve EOL care. Further research is needed to identify those evidence-based practices that will achieve the goal of high quality EOL care. The advanced practice nurse (APN) is in a key position to influence the quality of EOL care through policy initiatives, such as advocating for changes to the curriculum for CNA basic education and EOL specialty certification. Another policy initiative could be the development of evidence-based guidelines for EOL care. Lobbying for sustained and increased funding for long-term care is imperative if expanded training needs of staff are to be realized.

This study may be used by APNs as a basis for further research related to specialized training for CNAs who care for patients at EOL. Evidence is needed that supports the premise that specialized CNA training in palliative and hospice care translates into improved quality of care and patient and family satisfaction. Specific measures must also be identified to determine patient satisfaction and quality of EOL care before testing CNA interventions at EOL.

Another area that necessitates further research is the effect that CNAs' religious and cultural beliefs have on their attitudes toward end-of-life care. It is important to

recognize that the American culture is rich in diversity and it is imperative that patients, families, and caregivers demonstrate respect for each other's differences.

There is also limited research examining other health professionals' perspectives on CNA preparation for EOL care. Indeed, there may be some providers who do not perceive CNA education as a priority. Other disciplines may also be in need of EOL education and may lack confidence in their ability to provide high quality care. The APN is prepared with the necessary research skills to pursue studies in these areas, as well as to provide EOL education and training of the interdisciplinary team.

Little is known about the current roles of APNs in the long-term care setting, but LTC staff would most likely benefit from the knowledge and expertise that APNs bring to EOL care. According to Miller & Han (2008), there are nursing homes that currently provide specialized training programs in EOL care, but the numbers are small. The APN as an expert clinician and role model, could provide direction to CNAs in caring for dying patients and then evaluate the quality of that care. Functioning in the roles of educator and leader, the APN could train CNAs in evidence based practices and facilitate improvements in EOL care.

The results of this study indicated a lack of knowledge, confidence and effectiveness in the area of EOL communication. Based on these findings, the researcher, an APN, developed an educational program focused on improving the communication skills of CNAs providing end-of-life care. This is just one example of the roles that APNs can play in LTC settings.

End-of-life care raises ethical issues related to personal choices about death and the dying, and APNs have the expertise to provide guidance to patients, families, and staff navigating these complex decisions. The APN, as an interdisciplinary team leader, is in a position to implement a holistic approach that promotes dignity for the patient at the time of death. Recognizing that patients and families may have unmet needs, the APN could support a team approach to palliative care; with the goals of reducing suffering through meeting of physical, psychological, social and spiritual needs. Collaboration with other team members could generate early hospice consultation to facilitate improvements in the quality of EOL care (Miller & Han, 2008).

This descriptive study provided useful information about the knowledge, confidence, and effectiveness of CNAs providing EOL care in a LTC facility. Findings from this research support the premise that CNAs require specialized training to meet the needs of patients at EOL. The study had multiple implications for future research and for APN roles in the quest to improve care for those dying in nursing homes.

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Rhode Island College Institutional Review Board

To: Jeanne Schwager
From: Christine A. Marco, Ph.D.
Date: Wednesday, November 24, 2010
Re: IRB Proposal

This is to advise you that the study referenced below has been APPROVED by the Institutional Review Board (IRB). If you are advising a student research project, the student's name is listed below. Please share this information with the student as it is being sent only to you.

Proposal title: Research study of Confidence and Knowledge Base of nursing assistants providing EOL care

Protocols	1011-14
Principal Investigator:	Jeanne Schwager
Student Investigator (if applicable):	Falcone, Carol
Approval date:	11/24/2010
Expiration date:	11/23/2011
Deadline for Progress Report:	30 days before expiration

Your responsibilities as the Principal Investigator on this project are as follows:

1. Consent materials with the official IRB approval stamp and approval number will be sent in a separate email. **You must use only this version with your participants.**
2. You may implement only those methods approved by the IRB. If you wish to make any changes to the protocol, including the elimination of previously-approved methods, you must submit an Amendment/Change Request Form. Approval from the IRB must be issued before any of the changes are implemented.
3. If any unanticipated problems or adverse events occur during the study, you must submit an Unanticipated Problems/Adverse Events form within three (3) days of your knowledge of the event.
4. Approval has been issued for one (1) year. If you wish to continue the project beyond the expiration date, you must complete and submit a Progress/Final Report Form at least 30 days before the expiration date (11/23/2011). If approval to continue the project is not finalized by the expiration date, you must discontinue all work pertaining to this protocol and wait until approval is given before resuming data collection.
5. You must keep all research data and consent documents within your possession in a secured location for at least three (3) years after the completion of the study, including publications or presentations of any reports.

All forms mentioned above are available at www.ric.edu/irb. Completed forms and/or questions should be emailed to IRB@ric.edu.

Rhode Island College

The Self Reported Confidence/Effectiveness and Knowledge Base
of CNA's Working in Long Term Care

You are being asked to participate in a research study about the self reported confidence/effectiveness and knowledge base of CNA's working in LTC. You were selected as a possible participant because you currently provide care for end-of-life patients in a long term care facility. Please read the form and ask any questions that you may have before agreeing to be in the research.

Carol Falcone, RN,BSN, a student at Rhode Island College is conducting this study.

Background Information

The purpose of this research is to evaluate the self-reported confidence and examine the knowledge base of CNA's working with end-of-life patients in LTC.

Procedures

If you agree to be a participant in this research, you will be asked to do the following things:

1. Attend an hour meeting to fill out a consent form and a simple demographic form that asks you questions about your background, length of time as a CNA, your primary language, ethnicity and gender.
2. Complete a 14 item questionnaire reporting your confidence level in providing end-of-life care, and complete a 23 item questionnaire that asks you about what your knowledge is regarding end-of-life care.
3. Permission may also be requested from you to be contacted about future opportunities to volunteer, but you would be under no obligation to agree to be contacted or to participate.

Voluntary Participation

Your participation is completely voluntary. If you choose not to participate in this research, there will be no negative consequences to your employment. Also, you can change your mind about participating at any time with no negative consequences. Choosing not to participate or changing your mind will not effect your relationship or standing with Emerald Bay Manor.

Initial here to indicate that you have read and understood this page



Risks and Benefits to Being in the Study

The risks of participating in this research are minimal, meaning that they are about the same as you would experience in your normal daily activities. The main foreseeable risk is that you may feel some frustration when answering the questions. If you feel too frustrated and want to stop your participation, you should tell the researcher.

There are no direct benefits to you.

Confidentiality

The records of this research will be kept private. In any sort of report that might be published, the researcher will not include any information that will make it possible to identify you. Research records will be kept in a secured file, and access will be limited to the researcher, the Rhode Island College review board responsible for protecting human participants, and regulatory agencies. All data will be kept for a minimum of three years, after which it will be destroyed.

Contacts and Questions

The researcher conducting this study is Carol Falcone. You may ask any questions you have now. If you have questions later, you may contact her at clf47@cox.net or 401333-4948, or Professor Cindy Padula at Rhode Island College Nursing Department [cpadula\(5\)ric.edu](mailto:cpadula(5)ric.edu).

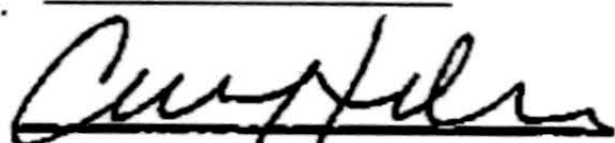
If you would like to talk to someone other than the researcher about your rights and safety as a research participant, please contact Dr. Christine Marco, Chair of the Institutional Review Board at [IRB\(S\)ric.edu](mailto:IRB(S)ric.edu) by phone (401456-8598), or by writing, Dr. Christine Marco, Chair IRB; Horace Mann Hall 311; Rhode Island College; 600 Mount Pleasant Avenue; Providence, RI 02908.

You will be given a copy of this form for your records.


Statement of Consent

I have read and understand the above information, and I agree to participate in this study. I understand that my participation is voluntary and can be withdrawn at any time with no negative consequences. I have received answers to the questions I asked, or I will contact the researcher with any future questions that arise. I am at least 18 years of age.

Print Name of Participant: _____

Signature of Participant 

Date 10/11/14

R1C Institutional Review Board		
Approval #	1011-14	
Expiration Date:	11/23/2011	

Appendix B

Dear CNAs

I would like to invite you to take part in a research study. The purpose of the study is to measure the confidence level and knowledge base for end-of-life caregivers. You will be asked to complete a consent form and in another document, provide demographic information about your years of experience, primary language, ethnicity, gender and race. The demographic information is anonymous and will not be matched or stored in any way that would identify you personally. You will then complete two questionnaires, one with 14 questions asking you to rate your confidence and effectiveness level providing end of life care, and one of 23 questions that assesses your knowledge of end-of-life care. There are no questions that should cause you distress. Your taking part in this research is completely voluntary. If you choose to participate and then change your mind, you are free not to answer any of the questions. The research dates are February 15 and 18th from 7:15 am to 8:15 am, or from 8:30 pm to 9:30 pm. The research will also be open to participants on March 1st and 4th from 7:15 to 8:15 am or from 8:30 to 9:30 pm. All CNA's are invited to participate.

Participating in this study may not personally benefit you. But it is hoped that your answers will be helpful to the researcher in developing a program for CNA's related to end-of-life care. All information will be kept confidential and none of the questionnaires will have your name or a number on them that will personally identify you. If you have any questions about this study or your rights as a research subject, please feel free to call me at 401 230-7379 or email me at clf47@cox.net.

Thank you very much for your time,

Carol Falcone, RN, BSN

Appendix C

AN INVITATION



**An invitation for
CNA'S to take part in
a Research Study**

Conducted by
Carol Falcone, RN, BSN
Rhode Island College

- A Research study will be conducted at Emerald Bay Manor during the months of February/March
- Dates and times: Tuesday Feb. 15 at 7:15am to 8:15 am. The session will be repeated at 8:30 pm to 9:30 pm. Other dates and schedules are Feb 18, March 1st and 4th.
- The purpose of the study is to measure CNA confidence levels and knowledge base caring for residents at end-of-life
- Only ONE HOUR of your time is required and all research done is anonymous and confidential.
- Participation requires you to complete
 - A consent form
 - A 14 item questionnaire
 - A 23 answer knowledge questionnaire

*Refreshments will be provided

Appendix D

CONSENT DOCUMENT**Rhode Island College****The Self Reported Confidence/Effectiveness and Knowledge Base
of CNAs Working in Long Term Care**

You are being asked to participate in a research study about the self reported confidence/effectiveness and knowledge base of CNA's working in LTC. You were selected as a possible participant because you currently provide care for end-of-life patients in a long term care facility. Please read the form and ask any questions that you may have before agreeing to be in the research.

Carol Falcone, RN,BSN at Rhode Island College is conducting this study.

Background Information

The purpose of this research is to evaluate the self-reported confidence and examine the knowledge base of CNA's working with end-of-life patients in LTC.

Procedures

If you agree to be a participant in this research, you will be asked to do the following things:

1. Attend an hour meeting to fill out a consent form and a simple demographic form that asks you questions about your background, length of time as a CNA, your primary language, ethnicity and gender.
2. Complete a 14 item questionnaire reporting your confidence level in providing end-of-life care, and complete a 23 item questionnaire that asks you about what your knowledge is regarding end-of-life care.
3. Permission may also be requested from you to be contacted about future opportunities to volunteer, but you would be under no obligation to agree to be contacted or to participate.

Voluntary Participation

Your participation is completely voluntary. If you choose not to participate in this research, there will be no negative consequences to your employment. Also, you can change your mind

about participating at any time with no negative consequences. Choosing not to participate or changing your mind will not effect your relationship or standing with Emerald Bay Manor.

_____ Initial here to indicate that you have read and understood this page

Risks and Benefits to Being in the Study

The risks of participating in this research are minimal, meaning that they are about the same as you would experience in your normal daily activities. The main foreseeable risk is that you may feel some frustration when answering the questions. If you feel too frustrated and want to stop your participation, you should tell the researcher.

There are no direct benefits to you. However, the data may help the researcher better understand the confidence and knowledge level of the CNA's.

Confidentiality

The records of this research will be kept private. In any sort of report that might be published, the researcher will not include any information that will make it possible to identify you. Research records will be kept in a secured file, and access will be limited to the researcher, the Rhode Island College review board responsible for protecting human participants, and regulatory agencies. All data will be kept for a minimum of three years, after which it will be destroyed.

Contacts and Questions

The researcher conducting this study is Carol Falcone. You may ask any questions you have now. If you have questions later, you may contact her at clf47@cox.net or 401 333-4948, or Professor Cindy Padula at Rhode Island College Nursing Department cpadula@ric.edu.

If the researcher cannot be reached, or if you would like to talk to someone other than the researcher about (1) your rights as a research participant, (2) research-related injuries or problems, or (3) other issues/concerns you have about your participation in this study, please contact the Chair of the Institutional Review Board at IRB@ric.edu, or by phone (401 456-8228), or by writing, Chair, IRB; c/o Office of Research and Grants Administration; Roberts Hall; Rhode Island College; 600 Mount Pleasant Avenue; Providence.

You will be given a copy of this form for your records.

Statement of Consent

I have read and understand the above information, and I agree to participate in this study. I understand that my participation is voluntary and can be withdrawn at any time with no negative consequences. I have received answers to the questions I asked, or I will contact the researcher with any future questions that arise. I am at least 18 years of age.

Print Name of Participant: _____

Signature of Participant _____ Date: _____

Appendix E

NURSING ASSISTANT RESEARCH PROJECT

PLEASE FILL OUT THE INFORMATION LISTED BELOW: This information will be stored separately in a different folder from your consent form and from your questionnaires to prevent any matching of information.

1. How many years have you been working as a nursing assistant?
 - a. <1
 - b. 1-2
 - c. 3-5
 - d. 6-10
 - e. >10

2. Primary Language The research project will be written in English. You will not be excluded in any way if English is not your primary language.
 - a. English
 - b. Other

3. Ethnicity
 - a. Hispanic/Latino
 - b. Not Hispanic/Latino

4. Gender
 - a. Female
 - b. Male

5. Race
 - a. Caucasian
 - b. Black or African American
 - c. Asian

Appendix F

**NURSING ASSISTANT
Self-Evaluation OF End-of-Life Skills**

Please complete the following questionnaire by completely filling in the bubble for the response that best describes your assessment of your skill in caring for dying residents and their families.

In general, how effective do you think that you are in the following skills?

1. Communicating with terminally ill residents and their families.

Not at all effective 0 1 2 3 4 5 6 7 8 9 10 Very effective

2. Observing and reporting common end-of-life symptoms such as pain and shortness of breath.

Not at all effective 0 1 2 3 4 5 6 7 8 9 10 Very effective

3. Observing for and reporting side effects of pain medications.

Not at all effective 0 1 2 3 4 5 6 7 8 9 10 Very effective

4. Using non-drug therapies for common end-of-life symptoms such as pain and nausea.

Not at all effective 0 1 2 3 4 5 6 7 8 9 10 Very effective

5. Recognizing and respecting resident's and family's spiritual practices at the end of life.

Not at all effective 0 1 2 3 4 5 6 7 8 9 10 Very effective

6. Providing emotional support to residents and family members at the end of life.

Not at all effective 0 1 2 3 4 5 6 7 8 9 10 Very effective

7. Caring for residents from different cultural groups at the end of life.

Not at all effective (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Very effective

8. Coping with family/resident conflicts about end-of-life care.

Not at all effective (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Very effective

9. Caring for and preparing the body at the time of death.

Not at all effective (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Very effective

10. Discussing the goals of care with residents, families and other team members.

Not at all effective (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Very effective

11. Meeting my own self-care needs when working closely with residents who are dying and their families.

Not at all effective (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Very effective

12. Discussing the role of hospice in the care of terminally ill residents.

Not at all effective (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Very effective

13. Providing physical care for dying residents.

Not at all effective (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Very effective

14. Working with other team members to provide effective end-of-life care.

Not at all effective (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Very effective

Appendix G

NURSING ASSISTANT**KNOWLEDGE ASSESSMENT QUESTIONNAIRE**

Please complete the following 23 question assessment by marking the letter you believe BEST answers the question.

1. Which of the following items is a common sign of pain in the patient who cannot communicate with words?
 - a. Change in bowel pattern
 - b. Relaxed facial expression
 - c. Change in activity level
 - d. Increased appetite

2. A 50 year old man is dying of lung cancer. As you enter his room, you find him moaning and moving around in bed. When you ask what is wrong, he says his pain is really bad. You know that he received IV medication for his pain. What is your best response?
 - a. Help him to lie back down and fix his pillows
 - b. Check the medication record to see what dose of morphine he received
 - c. Notify the nurse to report that he is still complaining of pain
 - d. Assure him that the medicine will work soon

3. Which of the following answers about pain is true?
 - a. Patients with chronic pain have higher blood pressure
 - b. The patient knows best about his own pain
 - c. A patients body language is the best indication of his pain level
 - d. Pain experts can know a patient's pain level by observation

4. A possible sign of shortness of breath is when the patient
 - a. Is unable to laugh while talking
 - b. Experiences movement in his chest and abdomen when breathing
 - c. Experiences increased sleepiness throughout the day
 - d. Has a chronic, moist cough

5. Which of the following is the **most** likely to help relieve a patient's nausea?
 - a. Distracting the patient by talking with her about her favorite activity
 - b. Offering a hot washcloth for her neck and forehead
 - c. Opening the window to let fresh air in the room
 - d. Suggesting you go for a walk to help activate her digestive tract

6. Which one of the following is a sign of restlessness at end-of-life?
 - a. Daytime sleepiness
 - b. Repeated "picking" behavior
 - c. Frequent urination
 - d. Bluish fingernails

7. A patient at end-of-life reports a pain level of 6 on a 1-10 scale and requests pain medication. A short time later you walk by the room and see him laughing at a TV show. Which statement best describes the patient's behavior?
 - a. He is addicted to the pain medication and wants his next dose
 - b. He is temporarily distracted from the pain
 - c. He is probably receiving too much pain medication
 - d. He probably has a pain level less than 6 out of 10

8. Which signs and symptoms will the nursing assistant probably observe when a patient is very near death?
 - a. Little response to voice or touch, lack of eye blinking, decreased urine output
 - b. Lack of eye blinking, increased urine output, bluish feet
 - c. Increased sensitivity to sounds, irregular breathing and apnea, bluish feet
 - d. Lack of eye blinking, small amounts of dark colored urine, increased respirations

9. Jim is a 40 year old patient dying of pancreatic cancer. He is married and has 2 young children. One day he tells you that he isn't sleeping and says "I can't stop worrying about all that has to be done around the house. How will my wife manage when I'm gone? Which is the **best** answer?
 - a. Try not to worry. I'm sure she'll find someone else to help
 - b. Maybe you should write things down so she'll know where to start
 - c. Do you want to talk to the nurse or social worker about it?
 - d. This must be very upsetting to you. Tell me more about what's going on

10. Which of the following BEST describes chronic pain?
- Pain that lasts more than two weeks
 - Pain that causes a change in vital signs
 - Pain that sometimes gets better but doesn't go away
 - Pain that does not respond to treatment
11. Mrs. Rosales, a Mexican Hispanic patient with lung cancer, mentions to you that she can't stop coughing because she had an argument with her husband. Your BEST response is:
- Do you want the nurse to speak to your husband?
 - You remind her that it's her cancer causing the cough
 - Ask her to tell you more about how this argument started the cough
 - Suggest she contact her traditional healer for help
12. Culture influences how patients and providers make healthcare decisions. Which of the following statements describes a major value in US health care?
- Death is an accepted part of the health care system
 - It's ok to withhold information as long as it's in the patient's best interest
 - Medical treatment focuses on what works and not on scientific facts
 - People have the right to direct their own lives and make their own decisions
13. The most important reason to control symptoms at the end-of-life is to:
- Help families and caregivers feel better
 - Decrease medical costs
 - Improve patient's quality of life
 - Decrease the need for personal care
14. The nursing assistant enters the patient's room and finds the patient's granddaughter trying to feed her lunch. The family member shouts "Grandma quit being so stubborn. If you don't eat you'll starve to death". What is the best response?
- You don't have to shout. She can still hear you
 - Why don't I take over and help her to eat. She will eat for me
 - It must be hard for you when she doesn't want to eat
 - She's not going to starve to death

15. For patients who are very close to death, which one of the following is the MOST cause of moist respirations
- Medication side effects
 - Unrelieved pain
 - Poor mouth care
 - Decreased swallow reflex
16. A "Good Death" is best described as a death that
- Occurs in the patient's home with family present
 - Happens before unpleasant symptoms appear
 - Reflects the individual patient's and family's wishes and values
 - Is managed without the use of high tech intervention
17. Which of the following is a COMMON sign at end-of-life?
- Bleeding
 - Seizures
 - Fatigue
 - Uncontrollable pain
18. Which of the following statements are true about end-of-life care?
- A nursing assistant often leaves the field because of the emotional stress of working with dying patients
 - A good end-of-life team is able to predict when a patient will die
 - Death may be less difficult when a skilled nursing assistant is providing help to patients and their families
 - The focus of end-of-life care is to extend the amount of time the patient will live
19. Which is the BEST example of a way to prevent skin breakdown?
- Assist the patient to wash daily with soap and warm water
 - Use disposable briefs w/tape tabs for the bedbound patient to decrease irritation from urine
 - Change the patient's position from complete side-lying to his back then to other side every 2 hours
 - Elevate the patient's heels by using a pillow under his calves and ankles

20. Which of the following is the MOST important observation to report to the licensed staff?
- The patient reports nausea after walking to the bathroom
 - The patient's vomit is dark brown and has the look of coffee grounds
 - Talking about the clinic where she had chemotherapy makes her feel nauseated
 - The patient throws up first thing every morning before eating breakfast
21. Which statement about delirium is FALSE?
- Delirium often changes over 24 hours, sometimes getting worse and sometimes improving
 - Delirium usually comes on slowly over days or weeks
 - There is no effective treatment for delirium
 - Delirium seldom occurs in end-of-life patients
22. An unconscious patient is no longer speaking. What aspect of patient care is still appropriate?
- Observing for pain
 - Frequent vital signs
 - Daily weights
 - Encouraging fluids
23. What best describes the nursing assistant role in end-of-life care?
- Working independently with patients and families
 - Primarily assisting with the emotional needs of the patient
 - Providing comfort care to the patient before and at the time of death
 - Providing medical treatment to the patient