NCSBN

National Council of State Boards of Nursing

2008 Knowledge of Newly Licensed Registered Nurses Survey

Report of Findings from the

2008 Knowledge of Newly Licensed Registered Nurses Survey

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National Council of State Boards of Nursing, Inc. (NCSBN®)

Mission Statement

The National Council of State Boards of Nursing, composed of member boards, provides leadership to advance regulatory excellence for public protection.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGMENTS

EXECUTIVE SUMMARY

The National Council of State Boards of Nursing (NCSBN®) is responsible to its members, the boards of nursing in the U.S. and member board territories for the preparation of psychometrically sound and legally defensible licensure examinations (American Educational Research Association, American Psychological Association and National Council on Measurement in Education, 1999). Practice analysis studies assist NCSBN in evaluating the validity of the test plan that guides content distribution of the licensure examination. Because changes can occur in registered nurse (RN) practice, NCSBN conducts practice analysis studies every three years.

The primary purpose of this study is to identify the knowledge needed by newly licensed RNs. The results of this study (i.e., the important knowledge statements) will be used to inform item development. As with other new NCSBN research projects, there is a possibility that the knowledge statements may become an integral part of other processes (e.g., test specifications). However, at this time, these knowledge statements will be used solely to inform item development.

METHODOLOGY

A number of steps are necessary to perform an analysis of the knowledge needed by newly licensed RNs. This section provides a description of the methodology used to conduct the *2008 Knowledge of Newly Licensed Registered Nurses Survey*. Descriptions of the SME panel processes, survey development, sample selection and data collection procedures are provided, as well as information about confidentiality, response rates and the degree to which participants were representative of the sample of Newly Licensed RNs, RN Educators, and RN Supervisors.

Methodology Reviewers

Four methodology reviewers, chosen for their psychometric expertise in practice/job analysis and certification exam development, reviewed the methodologies and procedures utilized in this study. All four reviewers indicated this methodology was psychometrically sound, legally defensible and in compliance with professional testing standards.

Panel of Subject Matter Experts (SMEs)

A panel of 13 RN SMEs was assembled to assist with the creation of the knowledge statements and survey. Panel members taught RN students, supervised newly licensed RNs or were newly licensed RNs themselves. One member served on the 2008 RN Practice Analysis Subject Matter Expert Panel and agreed to serve on this panel in order to provide continuity between the panels. The panelists also represented the four NCSBN geographic areas, as well as the major nursing specialties and practice settings.

Survey Development

A number of processes were used to create, evaluate and refine the survey instrument used for the 2008 RN Knowledge Survey. In the initial meetings for the triennial practice analysis, a panel of nurses, representing different geographic regions of the country, nursing specialties and practice settings, met and developed nursing activity statements, which were intended to represent entry-level RN practice. These activity statements and the category structure developed by the SMEs provided a categorical structure for the creation of the knowledge statements. Following the work of the first panel, a second group of SMEs was convened with one panelist bridging the two groups.

This second panel reviewed the activity statements and then developed knowledge statements for each activity statement. The knowledge statements were reviewed and edited by the NCLEX® Examination Committee (NEC). A pilot study was conducted and information on the results was provided to the NEC. The resulting 153 knowledge statements were incorporated into a survey format. In addition to knowledge statements, the NEC felt it was important to gather empirical data regarding the need for newly licensed RNs to recall normal laboratory values for 30 common laboratory tests.

The final version of the survey contained four sections. The first section began with the initial identification of responder characteristics and then focused on the knowledge necessary for entry-level RN practice, asking responders to rate the importance of each knowledge statement by using a one to five-point scale. In addition, as noted above, responders were asked whether it was important to memorize 30 specific laboratory values (using a yes/no scale). Section two identified the participant's work environment including area of practice, type of client and employment setting/specialty. Section three focused on demographic information such as racial/ethnic background, highest obtained education degree and gender. The final section provided space for responders to write comments or suggestions about the survey.

Survey Process

Sample Selection

Newly Licensed RNs: A random sample of 2,150 RNs was selected from a list of candidates who passed the NCLEX-RN® examination between Jan. 1, 2008, and Feb. 17, 2008, and did not provide an e-mail address. Only candidates that did not provide an e-mail address for the NCLEX were included in the sample because there were two other surveys occurring simultaneously that required e-mail addresses. Only candidates with a U.S. mailing address within the jurisdiction in which they were seeking licensure were included in the sample. This strategy provided a way to minimize the number of incorrect addresses to which the survey would be sent.

Educators of RNs (RN Educators): In addition, surveys were sent to 2,100 nursing educators at 700 different nursing programs. Three surveys were sent to each dean/director of 700 nursing programs with instructions for them to distribute one survey to (1) a Medical/Surgical nursing instructor; (2) an Obstetrics-Gynecology/Pediatric (OB-GYN/Peds) nursing instructor; and (3) a mental health or community health nursing instructor. Each of the programs in the sample had a minimum of nine NCLEX candidates within the last two calendar years (2006 and 2007). In the event that there was faculty who were unable to complete the survey, the dean/directors

were asked to give the survey to a Medical/Surgical faculty member.

Supervisors of Newly Licensed RNs (RN Supervisor): Finally, 2,100 employers (700 in nursing homes; 700 in hospitals; and 700 in home health agencies) of newly licensed RNs were surveyed. This list came from a substantially larger mailing list, but the selection of employers to be included in the survey was also based upon the number of RN employees working for the company. This criterion was applied in order to maximize the likelihood that the employer would have newly licensed RNs and supervisors of newly licensed RNs. Surveys were mailed to the directors of nursing (DON) or an equivalent title at 2,100 health care facilities mentioned previously. The DONs were asked to complete the survey if they directly supervised newly licensed RNs. If they did not supervise newly licensed RNs, the DONs were asked to give the survey to a nurse who did supervise newly licensed RNs.

Representativeness

The percentage of responders from the various NCSBN member board jurisdictions is similar to the sample composition.

Mailing Procedure

The survey forms were mailed to a total of 6,350 potential responders (2,150 Newly Licensed RNs, 700 nursing programs, which included surveys for three educators [2,100 RN Educators in total] and 700 nursing homes, 700 hospitals and 700 home health agencies [2,100 potential supervisors of newly licensed RNs]). To acquire the RN Educator responders, three surveys were sent to the dean/director of the program to distribute amongst their staff. It was requested that a survey be distributed to an educator in each of the following general areas: (1.) Medical/Surgical (Med/Surg) Nursing; (2.) OB-GYN/Peds or Maternal Child Nursing; and (3.) Psychiatric (Mental Health) or Community Health Nursing. If the school did not have specialty faculty who could complete the survey, it was asked that additional faculty in the clinical setting who teach Med/Surg participate.

A five-stage mailing process was used to engage the participants in the study. A pre-survey letter was sent to each person or facility selected for the sample. One week later, the survey(s), with a cover letter and a postage-paid return envelope, were mailed.

Eleven days later, a postcard was sent to all participants or facilities reiterating the importance of the study and urging participation. Approximately one week after the first postcard, a second reminder postcard was sent. A final reminder was sent to non-responders approximately one week after the second reminder. The survey was conducted from April through June 2008.

Confidentiality

All potential participants were promised confidentiality with regard to their participation and responses. Pre-assigned code numbers were used to facilitate follow-up mailings. Files containing mailing information were kept separate from the data files. The study protocol was approved by NCSBN's chief executive officer for compliance with organizational guidelines for research studies involving human subjects.

Return Rates

There were 2,150 Newly Licensed RNs invited to complete the survey and of those, 18 surveys were returned due to bad addresses. There were 624 surveys returned by Newly Licensed RNs for an adjusted return rate of 29.3%. A total of 2,100 RN Educators were invited to complete the survey and nine of those were returned due to bad addresses. A total of 964 surveys were returned by RN Educators for a 46.1% adjusted return rate. There were 2,100 surveys sent to RN Supervisors, with 160 surveys coming back due to bad addresses. RN Supervisors returned 303 surveys for an adjusted return rate of 15.6%.

Of the 1,891 surveys received, 68 responders: (a) did not hold either an APRN or RN license; or (b) failed to answer the question regarding their job title. With the implementation of quality control procedures, the analyzable return rates were 28.4% for Newly Licensed RNs, 45.1% for RN Educators and 14.1% for RN Supervisors. There were 1,823 analyzable surveys or a return rate of 29.6% for the total group.

Knowledge Survey-Non-Responder Study

In order to ensure the validity of the results, NCSBN conducted a telephone survey of non-responders to determine if those RNs not responding would have rated the knowledge statements differently than the survey responders. If there are no systematic differences in responders versus non-responders, it would seem that the results are not biased and we have evidence to support the validity of the survey results. Of the RNs not participating in the survey, a stratified random sample of Newly Licensed RNs, RN Educators, and RN Supervisors were contacted via telephone. Of the potential contacts, a telephone interview was obtained from 106 RNs: 39 Newly Licensed RNs, 29 RN Educators, and 38 RN Supervisors. The study found that the majority of non-responders were either too busy or did not receive the initial survey invitation. More importantly, the study found that the non-responders rated the knowledge statements similar to how responders rated them; this similarity supports the validity of the results of this study.

Summary

A panel of RNs experienced in the practices of newly licensed RNs met and created a list of 153 knowledge statements that are important for a newly licensed RN to possess. A data collection instrument was developed, piloted and revised prior to being mailed. The surveyed RNs were divided into the following categories: 2,150 Newly Licensed RNs, 2,100 RN Educators (obtained by sending 3 surveys to 700 nursing programs) and 2,100 RN Supervisors (obtained by sending a survey to 700 nursing homes, 700 home health agencies and 700 hospitals). A 29.6% response rate of analyzable surveys was obtained for the total group. This analysis contains the responses of 606 Newly Licensed RNs, 944 RN Educators, and 273 RN Supervisors.

Demographics, Experiences and Practice Environments of Participants

Demographics/Past Experiences

Demographic information, including racial and ethnic backgrounds, educational preparation and gender, are presented next, followed by descriptions of responders' work environments, including settings and client characteristics.

Nursing Licenses Held

RN was the most frequent nursing license for all three job titles: 100.0% (Newly Licensed RNs), 86.3% (RN Educators) and 97.4% (RN Supervisors).

Gender

The majority of survey responders (93.7%) reported their gender as female: Newly Licensed RNs (88.9%), RN Educators (97.1%) and RN Supervisors (92.7%).

Survey Adequacy

The responders were asked to rate how well the knowledge statements represented the knowledge areas a newly licensed RN should possess choosing one of four options: "Poorly," "Adequately," "Well," or "Very Well." The majority of survey responders within each job title reported the survey covered the important knowledge areas of a newly licensed RN "Well" or "Very Well." Approximately 90.7% of Newly Licensed RNs, 88.8% of RN Educators and 85.6% of RN Supervisors rated the survey as covering knowledge "Well" or "Very Well."

Age

Newly Licensed RNs had an average age of 33.5 years (SD=9.65); RN educators' average age was 51.6 years (SD=8.09). RN Supervisors' average age was 50.1 years (SD=8.14).

Race/Ethnic Background

White-Not of Hispanic Origin was the ethnic background identified most frequently by Newly Licensed RNs (73.0%), RN Educators (90.5%), and RN Supervisors (88.1%).

Education Background

The majority of Newly Licensed RNs (56.9%) reported having an associate degree. Approximately 27.2% of RN Educators listed their degree as a generic master's degree in the U.S. or a master's degree as a clinical nurse specialist (26.5%). The most frequent response for RN Supervisors was a baccalaureate degree (34.0%).

Primary Language

The majority of Newly Licensed RNs (82.7%), RN Educators (97.9%), and RN Supervisors (95.4%) reported English as their primary language.

Years of Experience

There were large variations in months and years RN Educators and RN Supervisors worked in their job. Newly Licensed RNs were asked how long it had been since their graduation from the nursing programs. Newly Licensed RNs reported an average of 1.2 years since graduation. RN Educators have spent the longest time at their job (14.7 years) compared to RN Supervisors, who have spent an average of 13.6 years in their jobs.

Facilities

The majority of Newly Licensed RNs (87.9%) and RN Educators (79.5%) worked in hospitals. RN Supervisors worked primarily in long-term care (41.5%) and hospitals (41.1%).

Client Health Conditions

The majority of Newly Licensed RNs (72.3%), RN Educators (53.4%), and RN Supervisors (65.9%) reported working with clients exhibiting acute conditions. Due to nurses often working with clients with varying conditions, responders were allowed to give multiple answers, resulting in percentages within each job title totaling more than 100%.

Client Ages

The most frequent response for Newly Licensed RNs (66.0%) and RN Educators (65.5%) was caring for adult clients aged 31 to 64. However, the most frequent response for RN Supervisors (81.7%) was caring for older adults aged 65-85. The ability to

give multiple answers allows for percentages to equal more than 100%.

Employment Setting/Specialty

The employment setting most frequently given by Newly Licensed RNs (40.9%) and RN Educators (37.8%) was Med/Surg units. RN Supervisors (39.6%) most frequently answered nursing homes. On average for all job titles, the least reported employment settings were occupational health (0.3%) and prison (0.2%). Responders were able to answer up to two employment settings allowing for percentages totaling more than 100%.

Summary

The average Newly Licensed RN responder was an English-speaking white female with an average age of 33.5 years. She held an associate degree from a college/university within the U.S. She primarily worked in hospitals caring for adult clients (ages 31-85) exhibiting acute and chronic health conditions.

The average RN Educator responder was an English-speaking white female with an average age of 51.6 years. She held a generic master's degree from a college/university within the U. S. She exhibited the most work experience in her job title, having worked as an RN Educator for 14.7 years.

The average RN Supervisor responder was an English-speaking white female with an average age of 50.1 years. She held a baccalaureate degree from a college/university within the U.S. She worked in long-term care facilities caring for older clients (ages 65-85+) exhibiting acute as well as chronic and end-of-life conditions. On average, she had been an RN Supervisor for 13.6 years.

KNOWLEDGE STATEMENT AND LABORATORY VALUE FINDINGS

Overview of Methods

The *2008 Knowledge of Newly Licensed RNs Survey* asked responders to rate the importance of knowledge statements necessary for a newly licensed RN to practice safely and effectively. Responders were asked to rate the overall importance of each knowledge statement considering safe and effective professional practice, regardless of practice setting. Importance was rated by using a five-point (1-5) scale.

Subject Matter Experts Panel (SME) Validation of Survey Findings

The SME Panel for the *2008 Knowledge of Newly Licensed RNs Survey* was asked to provide independent ratings of the 153 knowledge statements.

In order to validate the results of the survey, the importance ratings estimated by SMEs were compared to the average importance ratings from the knowledge survey. There was, in general, consistency among the highest importance ratings for Newly Licensed RNs, RN Educators, RN Supervisors and the SME ratings. Additionally, there was consistency among the lowest importance knowledge statements among Newly Licensed RNs, RN Educators, RN Supervisors and SMEs. There seems to be evidence from several sources that provide convergent validity on the knowledge needed by newly licensed RN's in order to practice safely and effectively.

The importance ratings of SMEs compared to the ratings of each subgroup were very similar. In fact, there were no knowledge statement ratings that were one point different between the SMEs and the Newly Licensed RNs, RN Educators and RN Supervisors. Again, the information on knowledge needed by newly licensed RNs from multiple sources provides a more accurate description than a single source.

Representativeness of Knowledge Statements

The participants were asked whether the knowledge areas listed on the survey represented knowledge a newly licensed RN should possess. A large percentage of Newly Licensed RNs (54.6%), RN Educators (50.8%) and RN Supervisors (45.8%) responded that the survey represented the necessary knowledge "Very Well". Moreover, 90.7% of Newly Licensed RNs, 88.8% of RN Educators and 85.6% of RN Supervisors noted that the knowledge statements covered the knowledge of a newly licensed RN "Well" to "Very Well".

Reliability of Instrument

A reliability index (coefficient alpha) was calculated to evaluate the measurement error associated with the survey and the internal consistency of the survey instrument. Alpha coefficients range from 0 to 1; a value of 0.7 or greater is considered adequate (Cronbach, 1951). The resulting value of 0.98 for this survey instrument suggests this survey is reliably measuring the knowledge a newly licensed RN needs for safe and effective practice.

Knowledge Statements

Importance of Knowledge Statements

The safe and effective practice of newly licensed RNs was determined by participants' responses based on an importance rating scale. In other words, the responders were asked, "How important is the possession of this knowledge by a newly licensed RN for safe and effective professional practice, regardless of specific practice setting?" Importance ratings were recorded using a five-point scale: 1= "Not Important," 2= "Marginally Important," 3= "Moderately Important," 4= "Important," 5= "Critically Important." Average importance ratings were calculated by including all importance ratings regardless of practice setting. The SME panel ratings and survey respondent ratings of the 153 knowledge statements yielded very similar results. All of the groups (Newly Licensed RNs, RN Educators, RN Supervisors and SMEs) rated "critical signs and symptoms (identify and intervene)" and "rights of medication administration (identify and apply)" among the five most important knowledge statements. In terms of least important knowledge statements, all groups rated "available genetic resources for client referral" and "supply and resource management (e.g. obtain and reconcile supplies)" among the five least important knowledge statements.

Knowledge Statement Subgroup Analysis

Primary Job Title

The average knowledge statement importance ratings of Newly Licensed RNs, RN Educators, and RN Supervisors were cross-analyzed for meaningful differences between these job titles. The least important knowledge statement for Newly Licensed RNs, RN Educators, and RN Supervisors was "available genetic resources for client referral" with an average value of 2.84, 2.77 and 2.67 respectively. The most important knowledge statement for Newly Licensed RNs and RN Supervisors was "critical signs and symptoms (identify and intervene)" with an average value of 4.83 and 4.81. RN Educators rated "rights of medication administration (identify and apply)" highest with an average value of 4.86. In general, there were few differences in importance ratings based on job title.

Facility

The average importance ratings of the knowledge statements of responders from hospitals, long-term care and other were cross-analyzed for meaningful differences. Responders answering hospital, long-term care facility and community-based facility rated "available genetic resources for client referral" as the least important knowledge statement with average values of 2.71, 2.95 and 2.85 respectively. Responders answering "other" for their facility rated "supply and resource management (e.g. obtain and reconcile supplies)" the lowest with an average value of 3.00. The most important knowledge statement for responders working in hospitals, long-term care and community-based facilities was "critical signs and symptoms (identify and intervene)" with average values of 4.84, 4.81 and 4.81, respectively. Individuals working in "other" facilities rated "rights of medication administration (identify and apply)" highest with an average value of 4.89.

Laboratory Values

The importance of memorizing specific laboratory values with regard to the safe and effective practice of newly licensed RNs was determined by

participants' yes/no responses to each laboratory value listed in the survey.

Laboratory Value Subgroup Analysis

Primary Job Title

The percentages of respondents answering "yes" to the importance of memorizing the laboratory values listed in the survey were cross-analyzed between Newly Licensed RNs, RN Educators and RN Supervisors. Of those lowest values, 30.73% of Newly Licensed RNs answered "yes," that newly licensed nurses needed to know "normal lab value for ESR." There was 15.54% of RN Educators and 16.42% of RN Supervisors who answered "yes" to "normal lab value for phosphorus/phosphate." The highest percent answering "yes" to memorizing the "normal lab value for glucose," was 97.51% of Newly Licensed RNs, 96.27% of RN Educators and 92.19% of RN Supervisors.

Facility

The need to memorize laboratory values based on responder answers to the facility demographic was cross-analyzed for possible meaningful differences between the facility setting, hospital, long-term care facility, community-based facility and other. Every facility subgroup answered "normal lab value for phosphorus/phosphate" as the lowest percentages, answering "yes" with percentages of 21.05% (hospital), 18.75% (long-term care), 17.69% (community-based facility) and 29.35% (other). Memorizing "normal lab value for glucose" was answered "yes" among all four facilities, with percentages of 96.59% (hospital), 92.55% (long-term care), 92.57% (community-based facility) and 97.85% (other).

Summary

Responders to the *2008 Knowledge of Newly Licensed RNs Survey* found the statements listed in the survey to be representative of the knowledge necessary for safe and effective professional practice of newly licensed RNs. There were similar importance ratings of the knowledge statements for Newly Licensed RNs, RN Educators, RN Supervisors and SMEs.

CONCLUSION

Based on the reliability of the knowledge statement instrument; the survey of the non-responders; the validation of the knowledge statement importance ratings by SMEs; and the similarity of knowledge statement importance ratings by Newly Licensed RNs, RN Educators and RN Supervisors, the results of this survey can be used to inform item development.

Report of Findings from the

2008 Knowledge of Newly Licensed Registered Nurses Survey

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BACKGROUND OF STUDY

The National Council of State Boards of Nursing (NCSBN®) is responsible to its members, the boards of nursing in the U.S. and member board territories for the preparation of psychometrically sound and legally defensible licensure examinations (American Educational Research Association, American Psychological Association and National Council on Measurement in Education, 1999). Practice analysis studies assist NCSBN in evaluating the validity of the test plan that guides content distribution of the licensure examination. Because changes can occur in registered nurse (RN) practice, NCSBN conducts practice analysis studies every three years.

The primary purpose of this study is to identify the knowledge needed by newly licensed RNs. The results of this study (i.e., the important knowledge statements) will be used to inform item development. As with other new NCSBN research projects, there is a possibility that the knowledge statements may become an integral part of other processes (e.g., test specifications). However, at this time, these knowledge statements will be used solely to inform item development.

METHODOLOGY

A number of steps are necessary to perform an analysis of the knowledge needed by newly licensed RNs. This section provides a description of the methodology used to conduct the *2008 Knowledge of Newly Licensed Registered Nurses Survey*. Descriptions of subject matter expert (SME) panel processes, survey development, sample selection and data collection procedures are provided, as well as information about confidentiality, response rates and the degree to which participants were representative of the sample of Newly Licensed RNs, RN Educators, and RN Supervisors.

Methodology Reviewers

Four methodology reviewers, chosen for their psychometric expertise in practice/job analysis and certification exam development, reviewed the methodologies and procedures utilized in this study. All four reviewers indicated these methodologies were psychometrically sound, legally defensible and in compliance with professional testing standards. *See Appendix A for a listing of methodology reviewers.*

Panel of Subject Matter Experts (SMEs)

A panel of 13 RN SMEs was assembled to assist with the creation of the knowledge statements and survey. Panel members taught RN students, supervised newly licensed RNs or were newly licensed RNs themselves. One member served on the 2008 RN Practice Analysis Subject Matter Expert Panel and agreed to serve on this panel in order to provide continuity between the panels. The panelists also represented the four NCSBN geographic areas, as well as the major nursing specialties and practice settings. *See Appendix B for a listing of panel members.*

Survey Development

A number of processes were used to create, evaluate, and refine the survey instrument used for the

2008 RN Knowledge of Newly Licensed Registered Nurses Survey. In the initial meetings for the triennial practice analysis, a panel of nurses, representing different geographic regions of the country, nursing specialties and practice settings, met and developed nursing activity statements, which were intended to represent entry-level RN practice. These activity statements and the category structure developed by the SMEs provided a categorical structure for the creation of the knowledge statements. Following the work of the first panel, a second group of SMEs was convened with one panelist bridging the two groups.

This second panel reviewed the activity statements and then developed knowledge statements for each activity statement. The link between knowledge statements and activity statements can be seen in Appendix O, which was developed by the SME panelists during the meeting. Subsequent to their meeting, some of the knowledge statements were recategorized by the NCLEX® Examination Committee (NEC). The knowledge statements were then reviewed and edited by the NEC. The statements in Appendix O reflect the knowledge statements developed by the SMEs. A pilot study was conducted and information on the results was provided to the NEC. The resulting 153 knowledge statements were incorporated into a survey format.* In addition to knowledge statements, the NEC felt it was important to gather empirical data regarding the need for newly licensed RNs to recall normal laboratory values for 30 common laboratory tests.

The final version of the survey contained four sections. The first section began with the initial identification of responder characteristics and then focused on the knowledge necessary for entry-level RN practice, asking responders to rate the importance of each knowledge statement by using a one to five-point scale. In addition, as noted above, responders were asked whether it was important to memorize 30 specific laboratory values (using a yes/no scale). Section two identified the participant's

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*Knowledge statement "trade names for medications" appears twice in the survey and thus the results reporting in position #10 and #104.

work environment including area of practice, type of client and employment setting/specialty. Section three focused on demographic information such as racial/ethnic background, highest obtained education degree and gender. The final section provided space for responders to write comments or suggestions about the survey. The survey used in the *2008 Knowledge of Newly Licensed Registered Nurses Survey* may be found in Appendix C.

Survey Process

Sample Selection

Newly Licensed RNs: A random sample of 2,150 RNs was selected from a list of candidates who passed the NCLEX-RN® examination between Jan. 1, 2008, and Feb. 17, 2008, and did not provide an e-mail address. Only candidates that did not provide an e-mail address for the NCLEX were included in the sample because there were two other surveys occurring simultaneously that required e-mail addresses. Only candidates with a U.S. mailing address within the jurisdiction in which they were seeking licensure were included in the sample. This strategy provided a way to minimize the number of incorrect addresses to which the survey would be sent.

Educators of RNs (RN Educators): In addition, surveys were sent to 2,100 nursing educators at 700 different nursing programs using the following methodology. Three surveys were sent to each dean/director of 700 nursing programs, with instructions for them to distribute one survey to (1) a Medical/Surgical (Med/Surg) nursing instructor; (2) an Obstetrics-Gynecology/Pediatric (OB-GYN/Peds) nursing instructor; and (3) a mental health or community health nursing instructor. Each of the programs in the sample had a minimum of nine NCLEX candidates within the last two calendar years (2006 and 2007). In the event that there was faculty who were unable to complete the survey, the dean/directors were asked to give the survey to a Med/Surg faculty member.

Supervisors of Newly Licensed RNs (RN Supervisor): Finally, 2,100 employers (700 in nursing homes; 700 in hospitals; and 700 in home health agencies) of newly licensed RNs were surveyed. This list came from a substantially larger mailing list, but the selection of employers to be included in the survey was also based upon the number of RN employees working for the company. This criterion was applied in order to maximize the likelihood that the employer would have newly licensed RNs and supervisors of newly licensed RNs. Surveys were mailed to the directors of nursing (DON) or an equivalent title at 2,100 health care facilities mentioned previously. The DONs were asked to complete the survey if they directly supervised newly licensed RNs. If they did not supervise newly licensed RNs, the DONs were asked to give the survey to a nurse who did supervise newly licensed RNs.

Representativeness

Table 1 presents the correspondence of sample and responders within each primary job title by NCSBN jurisdiction. Because multiple surveys were mailed to RN Educators, all responders from an institution were counted only as one. As shown in *Table 1*, the percentage of responders from different jurisdictions is similar to the sample composition.

Mailing Procedure

The survey forms were mailed to a total of 6,350 potential responders (2,150 Newly Licensed RNs, 700 nursing programs, which included surveys for three educators [2,100 RN Educators in total], 700 nursing homes, 700 hospitals and 700 home health agencies [2,100 potential supervisors of newly licensed RNs]). To acquire the RN Educator responders, three surveys were sent to the dean/director of the program to distribute amongst their staff. It was requested that a survey be distributed to an educator in each of the following general areas: (1.) Med/Surg Nursing; (2.) OB-GYN/Peds or Maternal Child Nursing; and (3.) Psychiatric (Mental Health) or Community Health Nursing. If the school did not have specialty faculty who could complete the survey it was asked that additional faculty in the clinical setting who teach Med/Surg participate.

A five-stage mailing process was used to engage the participants in the study. A pre-survey letter was sent to each person or facility selected for the sample. One week later, the survey(s), with a cover letter and a postage-paid return envelope, were mailed.

Table 1. Representativeness of Responders by NCSBN Jurisdiction											
	Newly Licensed RN				RN Educator				RN Supervisor			
	Sample		Responders		Sample		Responders		Sample		Responders	
Jurisdiction	N	%	N	%	N	%	N	%	N	%	N	%
Alabama	33	1.5%	11	1.8%	16	2.3%	7	1.6%	28	1.3%	3	1.1%
Alaska	3	0.1%	1	0.2%	2	0.3%	1	0.2%	3	0.1%	0	0.0%
American Samoa	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Arizona	72	3.3%	22	3.6%	6	0.9%	3	0.7%	27	1.3%	3	1.1%
Arkansas	29	1.3%	11	1.8%	7	1.0%	4	0.9%	15	0.7%	1	0.4%
California	205	9.5%	57	9.4%	60	8.6%	36	8.4%	163	7.8%	17	6.2%
Colorado	48	2.2%	16	2.6%	10	1.4%	5	1.2%	23	1.1%	4	1.5%
Connecticut	10	0.5%	2	0.3%	9	1.3%	5	1.2%	46	2.2%	5	1.8%
Delaware	15	0.7%	5	0.8%	2	0.3%	1	0.2%	9	0.4%	0	0.0%
District of Columbia	4	0.2%	1	0.2%	2	0.3%	1	0.2%	8	0.4%	0	0.0%
Florida	98	4.6%	28	4.6%	35	5.0%	26	6.1%	113	5.4%	1	0.4%
Georgia	60	2.8%	18	3.0%	16	2.3%	10	2.3%	39	1.9%	2	0.7%
Guam	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Hawaii	8	0.4%	2	0.3%	3	0.4%	2	0.5%	10	0.5%	2	0.7%
Idaho	10	0.5%	1	0.2%	4	0.6%	1	0.2%	3	0.1%	1	0.4%
Illinois	66	3.1%	15	2.5%	26	3.7%	16	3.7%	126	6.0%	11	4.0%
Indiana	53	2.5%	12	2.0%	12	1.7%	8	1.9%	34	1.6%	3	1.1%
Iowa	43	2.0%	12	2.0%	13	1.9%	4	0.9%	20	1.0%	3	1.1%
Kansas	40	1.9%	16	2.6%	7	1.0%	6	1.4%	9	0.4%	2	0.7%
Kentucky	20	0.9%	3	0.5%	13	1.9%	7	1.6%	35	1.7%	7	2.6%
Louisiana	18	0.8%	6	1.0%	13	1.9%	8	1.9%	24	1.1%	3	1.1%
Maine	4	0.2%	1	0.2%	4	0.6%	2	0.5%	13	0.6%	1	0.4%
Maryland	58	2.7%	20	3.3%	12	1.7%	9	2.1%	45	2.1%	6	2.2%
Massachusetts	31	1.4%	4	0.7%	23	3.3%	10	2.3%	93	4.4%	16	5.9%
Michigan	40	1.9%	13	2.1%	25	3.6%	19	4.4%	79	3.8%	9	3.3%
Minnesota	46	2.1%	18	3.0%	20	2.9%	17	4.0%	40	1.9%	3	1.1%
Mississippi	24	1.1%	6	1.0%	12	1.7%	9	2.1%	18	0.9%	0	0.0%
Missouri	80	3.7%	23	3.8%	14	2.0%	6	1.4%	40	1.9%	10	3.7%
Montana	9	0.4%	2	0.3%	1	0.1%	0	0.0%	3	0.1%	1	0.4%
Nebraska	27	1.3%	6	1.0%	6	0.9%	2	0.5%	17	0.8%	2	0.7%
Nevada	8	0.4%	2	0.3%	4	0.6%	3	0.7%	7	0.3%	0	0.0%
New Hampshire	2	0.1%	1	0.2%	2	0.3%	1	0.2%	16	0.8%	4	1.5%
New Jersey	42	2.0%	11	1.8%	17	2.4%	8	1.9%	96	4.6%	10	3.7%
New Mexico	14	0.7%	5	0.8%	4	0.6%	4	0.9%	4	0.2%	0	0.0%
New York	92	4.3%	27	4.5%	49	7.0%	24	5.6%	243	11.6%	40	14.7%
North Carolina	58	2.7%	23	3.8%	14	2.0%	7	1.6%	52	2.5%	7	2.6%
North Dakota	3	0.1%	1	0.2%	2	0.3%	1	0.2%	4	0.2%	1	0.4%
Northern Mariana Islands	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Ohio	119	5.5%	40	6.6%	34	4.9%	27	6.3%	106	5.1%	13	4.8%
Oklahoma	22	1.0%	5	0.8%	7	1.0%	3	0.7%	9	0.4%	1	0.4%

Table 1. Representativeness of Responders by NCSBN Jurisdiction											
	Newly Licensed RN				RN Educator				RN Supervisor			
	Sample		Responders		Sample		Responders		Sample		Responders	
Jurisdiction	N	%	N	%	N	%	N	%	N	%	N	%
Oregon	13	0.6%	5	0.8%	5	0.7%	4	0.9%	18	0.9%	2	0.7%
Pennsylvania	69	3.2%	19	3.1%	41	5.9%	28	6.6%	153	7.3%	25	9.2%
Rhode Island	4	0.2%	2	0.3%	3	0.4%	0	0.0%	13	0.6%	2	0.7%
South Carolina	53	2.5%	12	2.0%	10	1.4%	6	1.4%	28	1.3%	5	1.8%
South Dakota	9	0.4%	1	0.2%	2	0.3%	1	0.2%	4	0.2%	1	0.4%
Tennessee	67	3.1%	16	2.6%	19	2.7%	12	2.8%	33	1.6%	2	0.7%
Texas	211	9.8%	50	8.3%	46	6.6%	30	7.0%	77	3.7%	14	5.1%
Utah	23	1.1%	4	0.7%	6	0.9%	4	0.9%	13	0.6%	2	0.7%
Vermont	0	0.0%	1	0.2%	2	0.3%	0	0.0%	10	0.5%	3	1.1%
Virgin Islands	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Virginia	48	2.2%	15	2.5%	22	3.1%	12	2.8%	39	1.9%	5	1.8%
Washington	57	2.7%	14	2.3%	12	1.7%	7	1.6%	36	1.7%	5	1.8%
West Virginia	7	0.3%	0	0.0%	5	0.7%	4	0.9%	8	0.4%	1	0.4%
Wisconsin	66	3.1%	18	3.0%	21	3.0%	16	3.7%	46	2.2%	13	4.8%
Wyoming	9	0.4%	2	0.3%	0	0.0%	0	0.0%	0	0.0%	1	0.4%
Total	2150	100.0%	606	100.0%	700	100.0%	427	100.0%	2098	100.0%	273	100.0%

Eleven days later, a postcard was sent to all participants or facilities reiterating the importance of the study and urging participation. Approximately one week after the first postcard, a second reminder postcard was sent. A final reminder was sent to non-responders approximately one week after the second reminder. The survey was conducted from April through June 2008.

Confidentiality

All potential participants were promised confidentiality with regard to their participation and responses. Pre-assigned code numbers were used to facilitate follow-up mailings. Files containing mailing information were kept separate from the data files. The study protocol was approved by the NCSBN's chief executive officer for compliance with organizational guidelines for research studies involving human subjects.

Return Rates

There were 2,150 Newly Licensed RNs invited to complete the survey and of those, 18 surveys were returned due to bad addresses. There were 624 surveys returned by Newly Licensed RNs for an adjusted return rate of 29.3%. A total of 2,100 RN Educators were invited to complete the survey and nine of those were returned due to bad addresses. A total of 964 surveys were returned by RN Educators for a 46.1% adjusted return rate. There were 2,100 surveys sent to RN Supervisors, with 160 surveys coming back due to bad addresses. RN Supervisors returned 303 surveys for an adjusted return rate of 15.6%. Total number of surveys sent was 6,163, with an adjusted return rate of 30.9% as seen in *Table 2*.

Of the 1,891 surveys received, 68 responders: (a) did not hold either an APRN or RN license; or (b) failed to answer the question regarding their job title. With the implementation of quality control procedures, the analyzable return rates were 28.4%, 45.1% and 14.1% for Newly Licensed RNs, RN Educators, and RN Supervisors respectively; as seen in *Table 3*. There were 1,823 analyzable surveys or a return rate of 29.6% for the total group.

Knowledge Survey-Non-Responder Study

In order to ensure the validity of the results, NCSBN conducted a telephone survey of non-responders to determine if those RNs not responding would have

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Table 2. Adjusted Return Rates

Job Title	Sample	Bad Addresses	Surveys Sent	Adjusted Responses	Adjusted Return Rate
Newly Licensed RNs	2,150	18	2,132	624	29.3%
RN Educators	2,100	9	2,091	964	46.1%
RN Supervisors	2,100	160	1,940	303	15.6%
Total	6,350	187	6,163	1,891	30.9%

Table 3. Analyzable Return Rates

Job Title	Surveys Sent	Invalid Responses	Analyzable Responses	Analyzable Return Rate
Newly Licensed RNs	2,132	18	606	28.4%
RN Educators	2,091	20	944	45.1%
RN Supervisors	1,940	30	273	14.1%
Total	6,163	68	1,823	29.6%

rated the knowledge statements differently. If there are no systematic differences in responders versus non-responders, it would seem that the results are not biased and we have evidence to support the validity of the results. Of the RNs not participating in the survey, a stratified random sample of Newly Licensed RNs, RN Educators and RN Supervisors were contacted via telephone. Of the potential contacts, a telephone interview was obtained from 106 RNs: 39 Newly Licensed RNs, 29 RN Educators and 38 RN Supervisors. The study found that the majority of the non-responders were either too busy or did not receive the initial survey invitation. More importantly, the study found that the non-responders rated the knowledge statements similar to how responders rated them; this similarity supports the validity of the results of this study. A full report of the study can be found in Appendix N.

Summary

A panel of RNs experienced in the practices of newly licensed RNs met and created a list of 153 knowledge statements that are important for a newly licensed RN to possess. A data collection instrument was developed, piloted and revised prior to being mailed. The surveyed RNs were divided into the following categories: 2,150 Newly Licensed RNs, 2,100 RN Educators (obtained by sending three surveys to 700 nursing programs) and 2,100 RN Supervisors (obtained by sending a survey to 700 nursing homes, 700 home health agencies and 700 hospitals). A 29.6% response rate of analyzable surveys was obtained for the total group. This analysis contains the responses of 606 Newly Licensed RNs, 944 RN Educators and 273 RN Supervisors.

DEMOGRAPHICS, EXPERIENCES AND PRACTICE ENVIRONMENTS OF PARTICIPANTS

Demographics/Past Experiences

Demographic information, including racial and ethnic backgrounds, educational preparation and gender are presented next, followed by descriptions of responders' work environments, including settings and client characteristics.

Nursing Licenses Held

RN was the most frequent nursing license of all three job titles: 100.0% (Newly Licensed RNs), 86.3% (RN Educators) and 97.4% (RN Supervisors). *See Figure 1 Licenses by Primary Job Title.* Responders were allowed to select all that apply, so percentages may not add up to 100%.
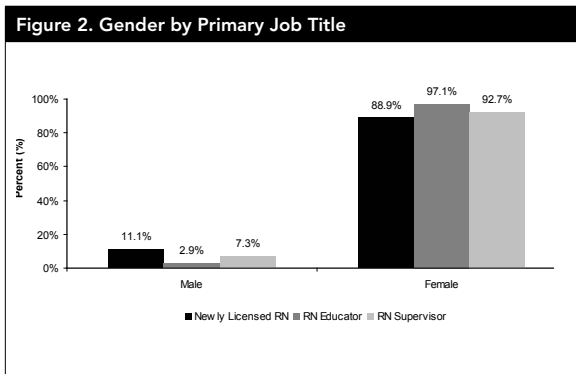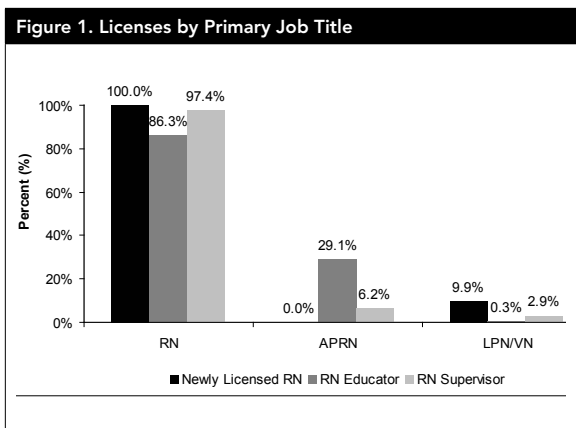
Figure 1. Licenses by Primary Job Title

Figure 2. Gender by Primary Job Title

Gender

The majority of survey responders (93.7%) reported their gender as female: Newly Licensed RNs (88.9%), RN Educators (97.1%) and RN Supervisors (92.7%). *See Figure 2 for gender sorted by primary job title.*

Survey Adequacy

The responders were asked to rate how well the knowledge statements represented the knowledge areas a newly licensed RN should possess choosing one of four options: "Poorly," "Adequately," "Well," or "Very Well." The majority of survey responders within each job title reported the survey covered the important knowledge areas of a newly licensed RN "Well" or "Very Well." Approximately 90.7% of Newly Licensed RNs, 88.8% of RN Educators and 85.6% of RN Supervisors rated the survey as covering knowledge "Well" or "Very Well." *See Figure 3 for adequacy of responses sorted by primary job title.*

Age

Newly Licensed RNs had an average age of 33.5 years (SD=9.65); RN Educators' average age was 51.6 years (SD=8.09). RN Supervisors' average age was 50.1 years (SD=8.14).

Race/Ethnic Background

White - Not of Hispanic Origin was the ethnic background identified most frequently by Newly Licensed RNs (73.0%), RN Educators (90.5%) and RN Supervisors (88.1%). *See Figure 4 for the racial/ethnic backgrounds of survey responders sorted by primary job title.*

Education Background

The majority of Newly Licensed RNs (56.9%) reported having an associate degree. Approximately 27.2% of RN Educators listed their degree as a generic master's degree in the U.S. or a master's degree as a clinical nurse specialist (26.5%). The most frequent response for RN Supervisors (34.0%)

Figure 3. Survey Adequacy by Primary Job Title
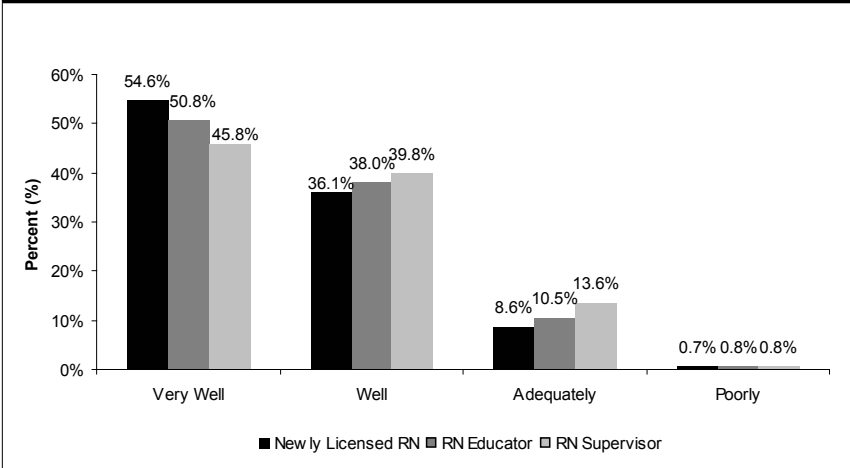
Figure 4. Race/Ethnic Background by Primary Job Title
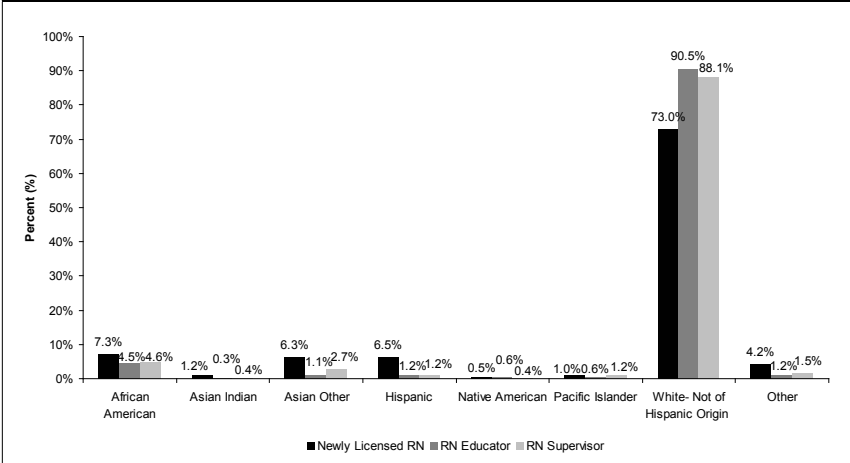
Figure 5. Educational Background by Primary Job Title
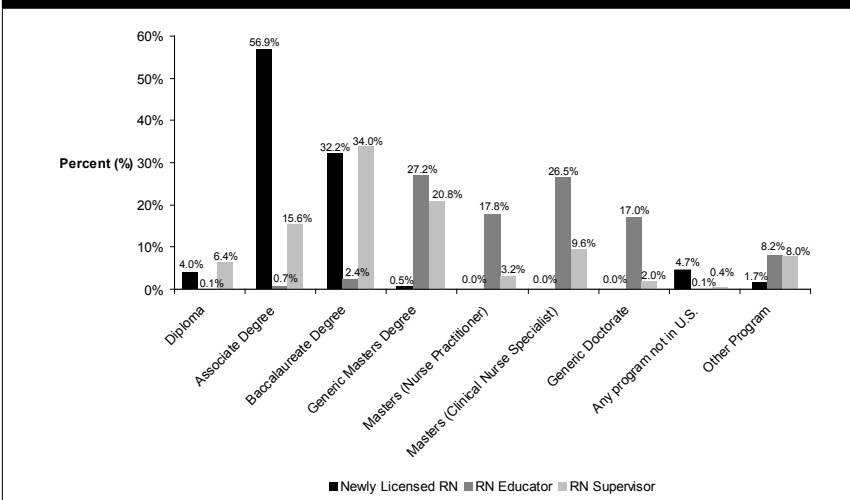
Figure 6. Primary Language by Primary Job Title

Figure 7. Facility by Primary Job Title
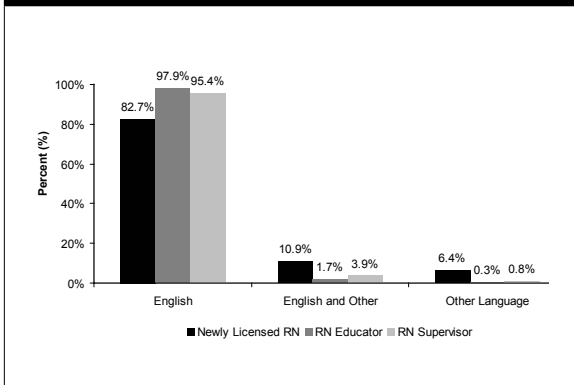
was a baccalaureate degree. *See Figure 5 for the educational background of responders sorted by primary job title.*

Primary Language

The majority of Newly Licensed RNs (82.7%), RN Educators (97.9%) and RN Supervisors (95.4%) reported English as their primary language. *See Figure 6 for primary language sorted by primary job title.*

Years of Experience

There were large variations in months and years RN Educators and RN Supervisors worked in their job. Newly Licensed RNs were asked how long it had been since their graduation from the nursing programs. Newly Licensed RNs reported an average of 1.2 years since graduation. RN Educators have spent the longest time at their job (14.7 years) compared to RN Supervisors, who have spent an average of 13.6 years in their jobs.

Facilities

The majority of Newly Licensed RNs (87.9%) and RN Educators (79.5%) worked in hospitals. RN Supervisors worked primarily in long-term care (41.5%) and hospitals (41.1%). *See Figure 7 for facility by primary job title.*

Client Health Conditions

The majority of Newly Licensed RNs (72.3%), RN Educators (53.4%) and RN Supervisors (65.9%) reported working with clients exhibiting acute conditions.

As nurses often work with clients with varying conditions, responders were allowed to give multiple answers, resulting in percentages within each job title totaling more than 100%. *See Figure 8 for client health conditions sorted by primary job title.*

Client Ages

The most frequent response for Newly Licensed RNs (66.0%) and RN Educators (65.5%) was caring for adult clients aged 31 to 64. However, the most frequent response for RN Supervisors (81.7%) was caring for older adults aged 65-85. The ability to give multiple answers allows for percentages to equal more than 100%. *See Figure 9 for client ages sorted by primary job title.*

Employment Setting/Specialty

The employment setting most frequently given by Newly Licensed RNs (40.9%) and RN Educators (37.8%) was Med/Surg units. RN Supervisors (39.6%) most frequently answered nursing homes. On average for all job titles, the least reported employment settings were occupational health (0.3%) and prison (0.2%). Responders were able to answer up to two employment settings allowing for percentages totaling more than 100%. *See Table 4 for employment settings and specialties.*

Figure 8. Client Health Conditions by Primary Job Title
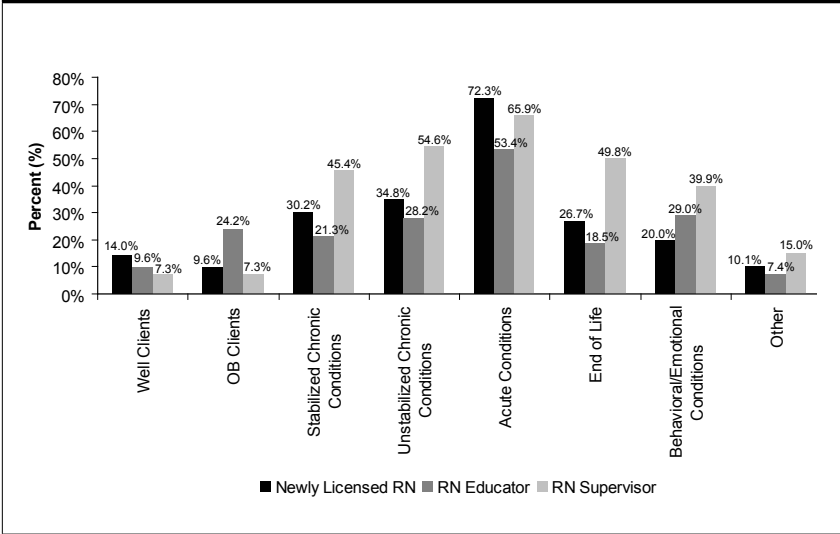
Figure 9. Client Ages by Primary Job Title
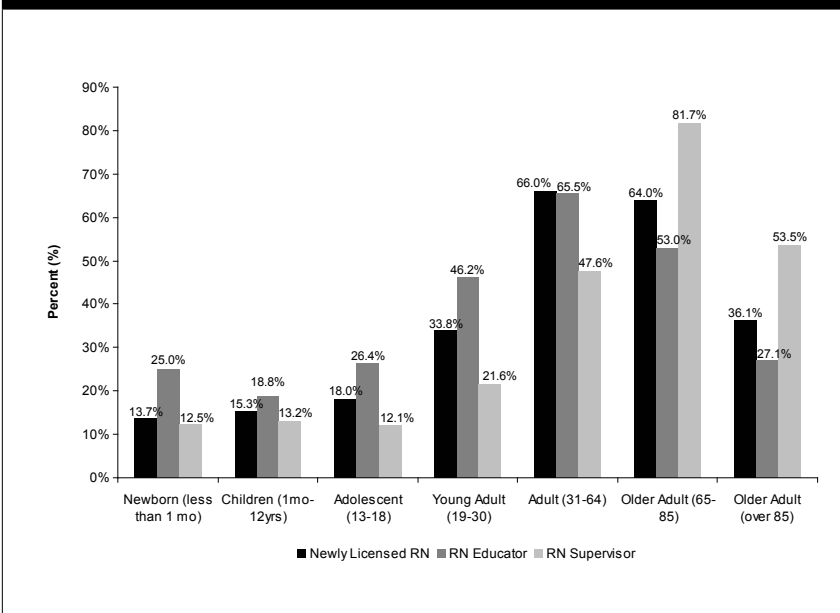
Table 4. Employment Setting/Specialty

Employment Setting	Newly Licensed RN		RN Educator		RN Supervisor		Total	
	N	%	N	%	N	%	N	%
Critical Care	210	34.7%	150	15.9%	44	16.1%	404	22.2%
Medical-Surgical unit	248	40.9%	357	37.8%	70	25.6%	675	37.0%
Pediatrics	37	6.1%	125	13.2%	12	4.4%	174	9.5%
Nursery	20	3.3%	85	9.0%	3	1.1%	108	5.9%
Labor and Delivery	27	4.5%	130	13.8%	4	1.5%	161	8.8%
Postpartum Unit	23	3.8%	146	15.5%	3	1.1%	172	9.4%
Psychiatry	13	2.1%	211	22.4%	5	1.8%	229	12.6%
Operating Room	27	4.5%	13	1.4%	6	2.2%	46	2.5%
Nursing Home	38	6.3%	38	4.0%	108	39.6%	184	10.1%
Other Long-term Care	9	1.5%	4	0.4%	5	1.8%	18	1.0%
Rehabilitation	22	3.6%	19	2.0%	30	11.0%	71	3.9%
Sub-acute Unit	12	2.0%	13	1.4%	29	10.6%	54	3.0%
Transitional Care Unit	9	1.5%	10	1.1%	6	2.2%	25	1.4%
Phys/APRN/Dentist Office	8	1.3%	9	1.0%	2	0.7%	19	1.0%
Occupational Health	3	0.5%	2	0.2%	1	0.4%	6	0.3%
Outpatient Clinic	8	1.3%	17	1.8%	2	0.7%	27	1.5%
Home Health	3	0.5%	30	3.2%	42	15.4%	75	4.1%
Public Health	6	1.0%	42	4.4%	4	1.5%	52	2.9%
Student/School Health	3	0.5%	22	2.3%	2	0.7%	27	1.5%
Hospice Care	10	1.7%	16	1.7%	12	4.4%	38	2.1%
Prison	2	0.3%	1	0.1%	0	0.0%	3	0.2%
Other	21	3.5%	95	10.1%	17	6.2%	133	7.3%

Summary

The average Newly Licensed RN responder was an English-speaking White female with an average age of 33.5 years. She held an associate degree from a college/university within the U.S. She primarily worked in hospitals caring for adult clients (ages 31-85) exhibiting acute and chronic health conditions.

The average RN Educator responder was an English-speaking White female with an average age of 51.6 years. She held a generic master's degree from a college/university within the U.S. She exhibited the most work experience in her job title, having worked as an RN Educator for 14.7 years.

The average RN Supervisor responder was an English-speaking White female with an average age of 50.1 years. She held a baccalaureate degree from a college/university within the U.S. She worked in long-term care facilities caring for older clients (ages 65-85+) exhibiting acute, as well as chronic and end-of-life conditions. On average, she had been an RN Supervisor for 13.6 years.

KNOWLEDGE STATEMENT AND LABORATORY VALUE FINDINGS

Overview of Methods

The *2008 Knowledge of Newly Licensed RNs Survey* asked responders to rate the importance of knowledge statements necessary for a newly licensed RN to practice safely and effectively. Responders were asked to rate the overall importance of each knowledge statement considering safe and effective professional RN practice, regardless of practice setting. Importance was rated by using a five-point (1-5) scale.

Subject Matter Experts Panel (SME) Validation of Survey Findings

The SME Panel for the *2008 Knowledge of Newly Licensed RNs Survey* was asked to provide independent ratings of the 153 knowledge statements. *See Appendix D for average importance ratings of SMEs.*

In order to validate the results of the survey, the importance ratings estimated by SMEs were compared to the average importance ratings from the knowledge survey. As can be seen in Table 5, there was, in general, consistency among the highest importance ratings for Newly Licensed RNs, RN Educators, RN Supervisors and the SME ratings. Additionally, there was consistency among the lowest importance knowledge statements among Newly Licensed RNs, RN Educators, RN Supervisors and SMEs. There seems to be evidence from several sources that provide convergent validity on the knowledge needed by newly licensed RNs in order to practice safely and effectively. The ratings of SMEs compared to survey responder ratings, categorized by job titles, are presented in Appendices E, F and G.

The importance ratings of SMEs compared to the ratings of each subgroup were very similar. In fact, there were no knowledge statement ratings that were one point different between the SMEs and the Newly Licensed RNs, RN Educators and RN Supervisors. Again, the information on knowledge needed by newly licensed RNs from multiple sources provides a more accurate description than a single source.

Representativeness of Knowledge Statements

The participants were asked whether the knowledge areas listed on the survey represented knowledge a newly licensed RN should possess. A large percentage of Newly Licensed RNs (54.6%), RN Educators (50.8%) and RN Supervisors (45.8%) responded that the survey represented the necessary knowledge "Very Well." Moreover, 90.7% of Newly Licensed RNs, 88.8% of RN Educators and 85.6% of RN Supervisors noted that the knowledge statements covered the knowledge that a newly licensed RN should posses "Well" or "Very Well."

Reliability of Instrument

A reliability index (coefficient alpha) was calculated to evaluate the measurement error associated with the survey and the internal consistency of the survey instrument. Alpha coefficients range from 0 to 1; a value of 0.7 or greater is considered adequate (Cronbach, 1951). The resulting value of 0.98 for this survey instrument suggests this survey is reliably measuring the knowledge that a newly licensed RN needs for safe and effective practice.

Knowledge Statements

Importance of Knowledge Statements

The safe and effective practice of newly licensed RNs was determined by participants' responses based on an importance rating scale. In other words, the responders were asked, "How important is the possession of this knowledge by a newly licensed RN for safe and effective professional practice, regardless of specific practice setting?" Importance ratings were recorded using a five-point scale: 1= "Not Important," 2= "Marginally Important," 3= "Moderately Important," 4= "Important," 5= "Critically Important." Average importance ratings were calculated by including all importance ratings regardless of practice setting. The SME panel ratings and survey respondent ratings of the 153 knowledge statements yielded very similar results. The five least important and the five most important knowledge statements for all groups are shown in

Table 5. All of the groups (Newly Licensed RNs, RN Educators, RN Supervisors and SMEs) rated "critical signs and symptoms (identify and intervene)" and "rights of medication administration (identify and apply)" among the five most important knowledge statements. In terms of the least important knowledge statements, all groups rated "available genetic resources for client referral" and "supply and resource management (e.g. obtain and reconcile supplies)" to be the least important.

The average importance of ratings sorted by primary job title (Newly Licensed RN, RN Educator and RN Supervisor) for all of the knowledge statements are presented in *Table 6.* Additionally, Appendices E, F and G present the information in rank order of importance for each of the primary job titles as compared to ratings of SMEs.

Table 5. Most Important and Least Important Knowledge Statements							
Most Important Knowledge Statements							
Newly Licensed RNs		**RN Educators**		**RN Supervisors**		**SMEs**	
Knowledge Statement	**Avg. (1-5 scale)**	**Knowledge Statement**	**Avg. (1-5 scale)**	**Knowledge Statement**	**Avg. (1-5 scale)**	**Knowledge Statement**	**Avg. (1-5 scale)**
critical signs and symptoms (identify and intervene)	4.83	rights of medication administration (identify and apply)	4.86	critical signs and symptoms (identify and intervene)	4.81	rights of medication administration (identify and apply)	4.89
recognizing/ activating/ providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	4.81	critical signs and symptoms (identify and intervene)	4.85	vital sign measurement, interventions related to changes	4.75	critical signs and symptoms (identify and intervene)	4.88
signs/ symptoms/ treatments of impaired ventilation/ oxygenation	4.71	client and care prioritization (who to see first, what to do first)	4.79	rights of medication administration (identify and apply)	4.74	signs/ symptoms/ interventions of an allergic or sensitivity reaction	4.78
client and care prioritization (who to see first, what to do first)	4.67	medications (e.g., therapeutic effects, side effects, common cross allergies, interactions)	4.78	recognizing/ activating/ providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	4.70	medication administration procedures (preparation, titration, storage)	4.78
rights of medication administration (identify and apply)	4.63	vital sign measurement, interventions related to changes	4.76	signs/ symptoms/ treatments of impaired ventilation/ oxygenation	4.69	recognizing/ activating/ providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	4.75

Table 5. Most Important and Least Important Knowledge Statements

Least Important Knowledge Statements

Newly Licensed RNs		RN Educators		RN Supervisors		SMEs	
Knowledge Statement	Avg. (1-5 scale)	Knowledge Statement	Avg. (1-5 scale)	Knowledge Statement	Avg. (1-5 scale)	Knowledge Statement	Avg. (1-5 scale)
available genetic resources for client referral	2.84	available genetic resources for client referral	2.77	available genetic resources for client referral	2.67	peritoneal dialysis techniques, methods, and equipment	2.67
alternative/complementary therapies (e.g., music/relaxation techniques, herbal therapies)	3.10	supply and resource management (e.g. obtain and reconcile supplies)	2.77	phototherapy indications, techniques, equipment, and safety precautions	3.00	supply and resource management (e.g. obtain and reconcile supplies)	2.78
supply and resource management (e.g. obtain and reconcile supplies)	3.13	post-mortem care (institutional policy and procedures)	3.00	supply and resource management (e.g. obtain and reconcile supplies)	3.01	hemodialysis techniques, methods and equipment	2.78
phototherapy indications, techniques, equipment, and safety precautions	3.16	peritoneal dialysis techniques, methods, and equipment	3.03	alternative/complementary therapies (e.g., music/relaxation techniques, herbal therapies)	3.05	available genetic resources for client referral	2.78
group dynamics	3.19	hemodialysis techniques, methods and equipment	3.05	targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)	3.08	phototherapy indications, techniques, equipment, and safety precautions	2.89

Table 6. Knowledge Statement Importance Ratings									
Survey Position #	Knowledge of:	Newly Licensed RN			RN Educator			RN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
1	available community resources for discharge planning	593	3.43	0.04	934	3.50	0.03	257	3.11	0.06
2	communication skills/language (e.g., professional, therapeutic, alternative forms for those with impaired communication)	593	4.26	0.03	931	4.67	0.02	258	4.38	0.05
3	how to provide/evaluate client/staff education	591	3.81	0.04	930	3.86	0.03	256	3.96	0.05
4	signs and symptoms of altered elimination (e.g., bowel, urinary)	593	4.35	0.03	933	4.47	0.02	256	4.54	0.04
5	client and care prioritization (who to see first, what to do first)	590	4.67	0.03	934	4.79	0.02	259	4.64	0.04
6	hand-off/reporting process (e.g., transfer, shift report)	593	4.09	0.03	930	4.25	0.02	257	4.35	0.04
7	rules of delegation (who can delegate to whom)	593	3.97	0.04	935	4.28	0.03	259	4.04	0.05
8	tube feeding administration, maintenance, and complications	592	3.99	0.04	934	4.05	0.03	258	4.19	0.05
9	client rights and responsibilities	591	4.01	0.04	928	4.37	0.02	258	4.16	0.05
10	trade names for medications	590	3.67	0.04	928	3.63	0.03	258	3.81	0.06
11	treatment options to advocate for client	591	3.79	0.03	934	3.77	0.03	259	3.70	0.05
12	client confidentiality/ privacy	590	4.33	0.03	935	4.73	0.02	258	4.51	0.04
13	additional advocacy resources (e.g., social worker, chain of command, translator)	592	3.77	0.04	932	3.81	0.03	259	3.66	0.06
14	critical signs and symptoms (identify and intervene)	590	4.83	0.02	933	4.85	0.01	257	4.81	0.03
15	data collection methods (e.g., chart review, incident reports)	593	3.63	0.04	932	3.72	0.03	259	3.71	0.06
16	acceptable methods of documentation (e.g., "do not use" abbreviations)	591	3.85	0.04	932	4.24	0.03	259	4.20	0.05
17	quality indicators (determined by institution regarding care)	593	3.37	0.04	933	3.44	0.03	260	3.53	0.06
18	team member roles and responsibilities	591	3.69	0.03	935	3.82	0.03	258	3.78	0.05

Table 6. Knowledge Statement Importance Ratings									
		Newly Licensed RN			RN Educator			RN Supervisor		
Survey Position #	Knowledge of:	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
19	referral process to interdisciplinary team members	592	3.42	0.04	930	3.45	0.03	258	3.50	0.05
20	order verification and clarification processes	590	4.27	0.04	929	4.42	0.03	260	4.38	0.05
21	phototherapy indications, techniques, equipment, and safety precautions	592	3.16	0.05	929	3.17	0.04	259	3.00	0.07
22	advance directive process (e.g., obtain, update, present on chart)	593	3.70	0.04	931	3.83	0.03	260	3.91	0.06
23	supply and resource management (e.g. obtain and reconcile supplies)	591	3.13	0.04	927	2.77	0.03	259	3.01	0.07
24	Nursing Code of Ethics	592	4.12	0.04	931	4.54	0.02	259	4.47	0.05
25	required reporting elements and process (e.g., abuse/neglect, communicable disease, gunshot wound, dog bite)	592	4.02	0.04	932	4.09	0.03	259	4.17	0.05
26	educational tools/ resources available for client	591	3.72	0.03	933	3.75	0.03	259	3.59	0.05
27	scope of practice (for self and others)	592	4.34	0.03	932	4.65	0.02	260	4.53	0.04
28	staff resources (e.g., chain of command, charge nurse)	592	3.84	0.03	931	3.95	0.03	260	3.94	0.05
29	consent process (e.g., informed consent, implied consent, emancipated minor)	591	4.11	0.03	932	4.27	0.02	260	4.07	0.05
30	conflict management principles	592	3.45	0.04	930	3.71	0.03	260	3.78	0.05
31	ethical dilemmas for area of practice and actions to be taken (personal/ societal)	591	3.60	0.04	933	3.92	0.03	260	3.73	0.05
32	continuing education requirements for professional development needs	593	3.53	0.04	929	3.54	0.03	260	3.50	0.06
33	evidence-based practice resources (e.g., journals, research, best practices)	593	3.41	0.04	930	3.90	0.03	259	3.66	0.06
34	nursing/medical terminology	593	4.18	0.03	933	4.38	0.02	260	4.44	0.04
35	time management techniques	594	4.27	0.03	932	4.10	0.03	260	4.18	0.05
36	standards of practice	593	4.29	0.03	934	4.51	0.02	259	4.52	0.04

Table 6. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed RN			RN Educator			RN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
37	unsafe practice reporting process	593	3.96	0.03	930	4.15	0.03	259	4.21	0.05
38	infection control principles	593	4.49	0.03	927	4.68	0.02	260	4.64	0.04
39	signs and symptoms of occupational/ environmental exposures (e.g., lead, asbestos)	593	3.62	0.04	932	3.41	0.03	259	3.46	0.06
40	risk assessment tools (e.g., fall risk, Braden scale, home safety)	591	3.96	0.04	932	4.04	0.03	258	4.17	0.05
41	biohazardous materials, handling, disposal, and resources available (e.g., OSHA, Material Safety Data Sheet {MSDS})	593	3.65	0.04	933	3.79	0.03	257	3.79	0.06
42	security plan/role in response to security alert	593	3.61	0.04	933	3.74	0.03	260	3.64	0.06
43	ergonomic principles (applied to self and client)	591	3.69	0.04	933	3.93	0.03	260	3.88	0.06
44	specific client identification procedures	588	4.28	0.04	931	4.59	0.02	260	4.24	0.06
45	intended purpose and function of equipment and trouble-shooting procedures	590	3.69	0.04	930	3.56	0.03	259	3.67	0.06
46	disaster response plan/ role	591	3.55	0.04	931	3.54	0.03	259	3.64	0.06
47	types/application/ monitoring of restraints	592	3.79	0.04	929	4.13	0.03	259	4.07	0.06
48	signs/symptoms/ interventions of an allergic or sensitivity reaction	592	4.60	0.03	931	4.65	0.02	259	4.60	0.03
49	signs and symptoms of communicable diseases	593	4.33	0.03	928	4.24	0.03	260	4.26	0.05
50	locating and maintaining emergency response equipment	591	4.35	0.03	931	4.27	0.03	258	4.14	0.06
51	physical assessment techniques	592	4.57	0.03	931	4.69	0.02	259	4.67	0.03
52	components of comprehensive health history data	593	4.00	0.03	931	4.23	0.02	260	4.27	0.04
53	anatomy and physiology (normal body systems, identify alterations)	592	4.41	0.03	931	4.45	0.02	259	4.53	0.04
54	perinatal care and complications (antepartum, intrapartum, postpartum)	589	3.75	0.05	927	3.81	0.03	260	3.52	0.07

Table 6. Knowledge Statement Importance Ratings									
		Newly Licensed RN			RN Educator			RN Supervisor		
Survey Position #	Knowledge of:	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
55	normal newborn transition/growth	592	3.51	0.04	929	3.70	0.03	260	3.43	0.07
56	hemodialysis techniques, methods and equipment	593	3.50	0.04	929	3.05	0.03	259	3.22	0.07
57	adult aging process	593	3.67	0.04	929	3.94	0.03	260	4.03	0.05
58	methods to evaluate client ability for self care	592	3.71	0.04	931	4.02	0.03	259	3.98	0.05
59	targeted screening assessment tools/ techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)	593	3.28	0.04	933	3.15	0.03	259	3.08	0.06
60	normal growth and development	592	3.70	0.04	935	4.00	0.03	258	3.68	0.05
61	high risk behaviors (e.g., smoking)	593	3.70	0.04	934	3.94	0.03	259	3.69	0.05
62	health maintenance recommendations	593	3.68	0.04	933	3.88	0.03	259	3.57	0.05
63	common barriers to routine health care	592	3.49	0.04	936	3.62	0.03	259	3.42	0.05
64	client learning assessment tools/ learning styles	593	3.49	0.04	935	3.63	0.03	256	3.59	0.05
65	population and community health risk factors	593	3.34	0.04	932	3.45	0.03	256	3.29	0.05
66	available genetic resources for client referral	592	2.84	0.04	932	2.77	0.03	255	2.67	0.06
67	cultural diversity and implications for care (e.g., religion, ethnicity, world view)	592	3.63	0.04	935	4.08	0.03	256	3.82	0.06
68	stress management and coping strategies	593	3.91	0.04	934	4.11	0.03	257	4.06	0.05
69	signs/symptoms/ treatment of abuse/ neglect	593	4.17	0.03	934	4.38	0.02	257	4.30	0.05
70	counseling and therapeutic techniques	592	3.68	0.04	935	3.71	0.03	256	3.41	0.06
71	therapeutic environment (how to establish/ maintain)	592	3.78	0.04	936	4.00	0.03	257	3.55	0.05
72	signs/symptoms/ management of toxicity, dependency, and withdrawal	593	4.15	0.03	935	3.94	0.03	257	3.74	0.06
73	stages of death and dying	592	3.89	0.03	935	3.95	0.03	258	4.21	0.05

		Newly Licensed RN			RN Educator			RN Supervisor		
Survey Position #	**Knowledge of:**	**N**	**Avg.**	**Std. Err.**	**N**	**Avg.**	**Std. Err.**	**N**	**Avg.**	**Std. Err.**
74	grief processes (identify and support)	592	3.71	0.03	933	3.89	0.03	256	3.94	0.05
75	group dynamics	593	3.19	0.04	934	3.40	0.03	257	3.42	0.06
76	cycle of violence (identify family/community dynamics, intervene)	593	3.49	0.04	933	3.73	0.03	257	3.44	0.06
77	safety precautions for violent behavior	592	3.98	0.04	932	4.20	0.03	257	3.98	0.05
78	diversity of family structures and functions	592	3.30	0.04	931	3.50	0.03	257	3.37	0.06
79	addictive behaviors (signs, symptoms and interventions)	592	3.71	0.04	932	3.73	0.03	257	3.58	0.05
80	behavioral management techniques (e.g., positive reinforcement, setting limits)	592	3.64	0.04	932	3.66	0.03	257	3.66	0.05
81	signs and symptoms of caregiver burnout	591	3.65	0.04	931	3.64	0.03	254	3.69	0.05
82	intervention techniques for clients with altered perceptions	592	3.71	0.03	932	3.84	0.03	255	3.59	0.05
83	body image disturbance and appropriate interventions	593	3.41	0.04	930	3.57	0.03	258	3.28	0.06
84	components of intake and output	592	4.21	0.03	931	4.50	0.02	258	4.30	0.05
85	application of math (drip factors, I/O)	590	4.40	0.04	929	4.67	0.02	256	4.33	0.05
86	leadership and management skills	592	3.68	0.04	928	3.69	0.03	258	3.66	0.06
87	post-mortem care (institutional policy and procedures)	592	3.27	0.04	931	3.00	0.03	257	3.26	0.06
88	basic information on organ donation and tissue care	592	3.28	0.04	931	3.08	0.03	257	3.21	0.06
89	irrigation procedures (e.g., eye, ear, bladder)	593	3.63	0.04	929	3.51	0.03	257	3.72	0.06
90	alternative/ complementary therapies (e.g., music/relaxation techniques, herbal therapies)	593	3.10	0.04	932	3.21	0.03	258	3.05	0.06
91	insertion, maintenance, and removal process for tubes and catheters	593	4.35	0.03	931	4.26	0.03	256	4.32	0.05
92	orthopedic devices and their use (e.g., traction, splint, braces)	592	3.72	0.04	933	3.65	0.03	257	3.77	0.05

Table 6. Knowledge Statement Importance Ratings

Table 6. Knowledge Statement Importance Ratings									
		Newly Licensed RN			RN Educator			RN Supervisor		
Survey Position #	Knowledge of:	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
93	interventions to promote sleep/rest	590	3.62	0.04	928	3.87	0.03	254	3.65	0.05
94	application and maintenance of devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)	592	4.07	0.04	932	4.08	0.03	258	4.09	0.05
95	pain scales (identify and apply)	593	4.23	0.03	933	4.53	0.02	257	4.56	0.04
96	non-pharmacological comfort measures (e.g., relaxation techniques)	592	3.60	0.04	933	4.04	0.03	258	3.84	0.05
97	signs and symptoms of alterations in nutritional status	592	3.96	0.03	934	4.18	0.02	257	4.11	0.05
98	inflammatory process (identification and treatment)	593	4.11	0.03	932	4.25	0.02	257	4.17	0.04
99	institutional policies and regulations regarding client care	593	3.83	0.04	930	3.76	0.03	257	3.77	0.06
100	urinary and bowel diversion procedures	592	3.78	0.04	932	3.68	0.03	256	3.93	0.05
101	measures to maintain skin integrity	592	4.41	0.03	932	4.48	0.02	258	4.55	0.04
102	diet and nutritional needs relative to disease process	593	3.99	0.03	930	4.10	0.02	257	4.12	0.04
103	activities of daily living (ADL) and instrumental activities of daily living (IADL)	591	3.67	0.04	926	3.95	0.03	257	4.05	0.05
104	trade names for medications	592	3.71	0.04	932	3.61	0.03	257	3.73	0.06
105	peripheral intravenous line, insertion, management, supplies and complications	593	4.51	0.03	930	4.38	0.03	258	4.36	0.05
106	proper handling and disposal of controlled substances (e.g, counting narcotics, wasting narcotics)	593	4.28	0.03	932	4.38	0.03	258	4.40	0.05
107	epidural anesthesia principles and care	593	3.72	0.04	931	3.48	0.04	258	3.33	0.07
108	rights of medication administration (identify and apply)	593	4.63	0.03	932	4.86	0.01	258	4.74	0.03
109	parenteral nutrition administration methods and maintenance	591	4.12	0.04	932	4.15	0.03	257	4.08	0.06

Table 6. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed RN			RN Educator			RN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
110	blood administration procedures (e.g., verify compatibility, reactions, treatments)	589	4.63	0.03	933	4.47	0.03	258	4.24	0.06
111	techniques used to access and maintain central venous access devices (tunneled, implanted, central lines)	592	4.37	0.03	933	4.12	0.03	258	4.21	0.06
112	medications (e.g., therapeutic effects, side effects, common cross allergies, interactions)	591	4.56	0.03	933	4.78	0.02	258	4.62	0.04
113	medication administration procedures (preparation, titration, storage)	590	4.48	0.03	933	4.71	0.02	258	4.68	0.03
114	pharmacological measures to manage pain	591	4.28	0.03	929	4.53	0.02	257	4.46	0.04
115	assistive devices and equipment (availability and use)	592	3.59	0.04	929	3.61	0.03	257	3.65	0.05
116	generic drug names	590	3.90	0.04	929	3.97	0.03	258	3.95	0.06
117	drug classifications	592	4.07	0.04	929	4.33	0.03	258	4.17	0.05
118	specific medication names	590	3.88	0.04	926	3.87	0.03	258	3.98	0.06
119	medication reconciliation processes	602	3.98	0.04	939	3.94	0.03	269	4.29	0.05
120	moderate sedation (complications, scores, interventions)	603	3.96	0.04	941	3.75	0.03	269	3.81	0.05
121	indications and contraindications of treatments/procedures	603	4.25	0.03	940	4.24	0.02	270	4.26	0.04
122	effect of co-morbidities on medical condition/disease process	602	4.02	0.03	940	4.01	0.03	270	4.10	0.05
123	indications/techniques for glucose monitoring and quality control	602	4.16	0.03	938	4.33	0.02	270	4.37	0.04
124	risk reduction concepts and techniques	601	3.87	0.04	937	4.02	0.03	270	3.91	0.05
125	vital sign measurement, interventions related to changes	602	4.58	0.03	940	4.76	0.02	270	4.75	0.03
126	tests/treatment/procedures appropriate for client needs	604	4.10	0.03	935	4.17	0.02	270	4.09	0.05
127	when and how to perform focused assessments/reassessments (e.g., pain systems, disease process)	601	4.45	0.03	936	4.63	0.02	269	4.59	0.04

Table 6. Knowledge Statement Importance Ratings									
		Newly Licensed RN			RN Educator			RN Supervisor		
Survey Position #	Knowledge of:	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
128	peri-operative care and risk reduction strategies (e.g., embolism prophylaxis, site verification, time out process, sponge counts)	604	4.18	0.04	937	4.02	0.04	269	3.90	0.06
129	intra-operative environment (e.g, sterile technique, roles and responsibilities, equipment requirements)	603	4.06	0.04	933	3.53	0.04	270	3.70	0.07
130	process to report critical diagnostic test results	601	4.41	0.03	938	4.40	0.03	269	4.45	0.05
131	how to perform diagnostic testing (e.g., electrocardiogram, O2 saturation, urine specific gravity)	601	3.94	0.04	939	3.53	0.03	270	3.64	0.06
132	fetal heart rate monitoring and recognition of fetal well-being/distress	602	3.95	0.05	937	3.65	0.04	269	3.31	0.08
133	specimen collection techniques (e.g., blood, wound cultures, stool, urine specimens) and equipment/supplies used	603	4.17	0.03	939	4.09	0.03	270	4.13	0.05
134	hemodynamics, tissue perfusion and homeostasis principles (cerebral, cardiac, peripheral)	603	4.44	0.03	940	4.29	0.03	270	4.17	0.05
135	signs/symptoms/ treatments of impaired ventilation/oxygenation	601	4.71	0.02	932	4.72	0.02	267	4.69	0.03
136	drainage devices and related equipment (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)	604	4.08	0.03	940	4.03	0.03	270	4.11	0.05
137	safe and effective use of body temperature control devices (e.g., cooling blankets)	604	3.80	0.04	941	3.66	0.03	270	3.66	0.06
138	ventilator management (e.g., suction, oxygen)	604	4.14	0.04	939	3.63	0.04	269	3.68	0.07
139	nursing role during invasive procedures (e.g., central line placement)	603	4.04	0.04	936	3.70	0.03	269	3.78	0.06
140	ostomy care procedures and supplies	603	3.73	0.04	937	3.59	0.03	270	3.83	0.05

Table 6. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed RN			RN Educator			RN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
141	peritoneal dialysis techniques, methods, and equipment	601	3.46	0.04	937	3.03	0.03	269	3.17	0.06
142	immunization schedule	602	3.20	0.04	940	3.29	0.03	269	3.20	0.06
143	pulmonary hygiene techniques, methods, and equipment	601	3.88	0.04	940	3.87	0.03	270	3.78	0.06
144	telemetry monitoring and interpretation of cardiac rhythms	603	4.18	0.04	939	3.52	0.03	267	3.45	0.07
145	acute and chronic disease processes and appropriate care	601	4.20	0.03	937	4.30	0.02	269	4.26	0.04
146	transcription protocol/ processes (how to transcribe orders)	601	3.89	0.04	939	3.84	0.04	269	4.12	0.06
147	post operative care (e.g., client response to surgery)	602	4.19	0.03	938	4.29	0.03	269	4.06	0.06
148	cardiac pacing methods, techniques, and equipment	599	3.89	0.04	932	3.18	0.04	269	3.32	0.07
149	principles to maintain arterial lines	600	3.97	0.04	937	3.24	0.04	268	3.33	0.07
150	signs and symptoms of overhydration and dehydration	601	4.44	0.03	937	4.55	0.02	270	4.49	0.04
151	wounds and wound care (e.g., products, procedures, and treatment)	602	4.09	0.03	939	4.21	0.02	270	4.25	0.05
152	tracheostomy care and supplies	602	3.97	0.04	937	3.87	0.03	270	3.97	0.05
153	recognizing/activating/ providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	600	4.81	0.02	939	4.76	0.02	269	4.70	0.04

Knowledge Statement Subgroup Analysis

Primary Job Title

The average knowledge statement importance ratings of Newly Licensed RNs, RN Educators, and RN Supervisors were cross-analyzed for meaningful differences between these job titles. Appendix J presents a table with each knowledge statement's average value for each primary job title. The least important knowledge statement for Newly Licensed RNs, RN Educators and RN Supervisors was "available genetic resources for client referral," with an average value of 2.84, 2.77, and 2.67 respectively. The most important knowledge statement for Newly Licensed RNs and RN Supervisors was "critical signs and symptoms (identify and intervene)," with an average value of 4.83 and 4.81. RN Educators rated "rights of medication administration (identify and apply)" highest, with an average value of 4.86. In general, there were few differences in importance ratings based on job title.

Facility

The average importance ratings of the knowledge statements of responders from hospitals, long-term care and other were cross-analyzed for meaningful differences. Responders answering hospital, long-term care facility and community-based facility rated "available genetic resources for client referral" as the least important knowledge statement, with average values of 2.71, 2.95 and 2.85 respectively. Responders answering "other" for their facility rated "supply and resource management (e.g. obtain and reconcile supplies)" the lowest, with an average value of 3.00. The most important knowledge statement for responders working in hospitals, long-term care and community-based facilities was "critical signs and symptoms (identify and intervene)," with average values of 4.84, 4.81 and 4.81, respectively. Individuals working in "other" facilities rated "rights of medication administration (identify and apply)" highest with an average value of 4.89. Average importance values for all knowledge statements by facilities are listed in Appendix K.

Laboratory Values

The importance of memorizing specific laboratory values with regard to the safe and effective practice of newly licensed RNs was determined by participants' yes/no responses to each laboratory value listed in the survey. The percentage of responders answering "yes" for each of the 30 laboratory values is presented in Appendix H in survey order and can be found ranked by percentage answering "yes" in Appendix I. Laboratory value findings can be found in *Table 7*.

Laboratory Value Subgroup Analysis

Primary Job Title

The percentages of respondents answering "yes" to the importance of memorizing the laboratory values listed in the survey were cross-analyzed between Newly Licensed RNs, RN Educators and RN Supervisors. Of those lowest values, 30.73% of Newly Licensed RNs answered "yes," that newly licensed nurses needed to know "normal lab value for ESR." There was 15.54% of RN Educators and 16.42% of the RN Supervisors who answered "yes" to "normal lab value for phosphorus/phosphate." In terms of the highest percent answering "yes" to memorizing lab values, 97.51% of Newly Licensed RNs, 96.27% of RN Educators and 92.19% of RN Supervisors answered "yes" to "normal lab value for glucose." A table including all average values for laboratory values by primary job titles can be found in Appendix L.

Facility

The need to memorize laboratory values based on responder answers to the facility demographic was cross-analyzed for possible meaningful differences between the facility settings: hospital, long-term care facility, community-based facility and other. Every facility subgroup answered "normal lab value for phosphorus/phosphate" as the lowest value percentages, answering "yes" with percentages of 21.05% (hospital), 18.75% (long-term care), 17.69% (community-based facility) and 29.35% (other). Memorizing "normal lab value for glucose" was answered "yes" among all four facilities, with

Table 7. Laboratory Value Findings		N	Percent
	Lab Values	**N**	**Percent**
Lab26	Normal lab value for phosphorus/phosphate	1799	21.01%
Lab22	Normal lab value for ESR	1804	22.51%
Lab27	Normal lab value for protein (total)	1793	25.60%
Lab16	Normal lab value for AST (SGOT)	1803	27.51%
Lab14	Normal lab value for ALT (SGPT)	1802	27.86%
Lab15	Normal lab value for ammonia	1804	27.99%
Lab17	Normal lab value for bilirubin	1803	33.56%
Lab23	Normal lab value for lithium	1806	34.22%
Lab13	Normal lab value for albumin (blood)	1798	35.60%
Lab19	Normal lab value for cholesterol (HDL and LDL)	1787	39.06%
Lab29	Normal lab value for urine (alb, pH, white blood cell count [WBC] and %T lymphocytes [differential])	1795	42.40%
Lab3	Normal lab value for cholesterol (total)	1796	43.65%
Lab24	Normal lab value for magnesium	1801	45.03%
Lab7	Normal lab value for hemoglobin A1C (HgbA1C)	1803	53.41%
Lab18	Normal lab value for bleeding time	1799	61.42%
Lab21	Normal lab value for digoxin	1800	62.33%
Lab10	Normal lab value for red blood count (RBC)	1801	65.35%
Lab20	Normal lab value for creatinine	1803	69.44%
Lab25	Normal lab value for PTT and APTT	1803	71.38%
Lab30	Normal lab value for INR	1799	73.15%
Lab28	Normal lab value for prothrombin time (PT)	1802	74.08%
Lab2	Normal lab value for arterial blood gases (pH, PO2, PCO2, SaO2, HCO3)	1801	75.74%
Lab1	Normal lab value for BUN (blood, urea, nitrogen)	1798	76.42%
Lab8	Normal lab value for platelets	1805	78.06%
Lab11	Normal lab value for sodium (Na+)	1806	86.60%
Lab12	Normal lab value for white blood count (WBC)	1808	90.10%
Lab5	Normal lab value for hematocrit (Hct)	1806	90.53%
Lab6	Normal lab value for hemoglobin (Hgb)	1810	92.65%
Lab9	Normal lab value for potassium (K+)	1809	94.25%
Lab4	Normal lab value for glucose	1810	96.08%

percentages of 96.59% (hospital), 92.55% (long-term care), 92.57% (community-based facility) and 97.85% (other). A table including all average values for the facility subgroup analysis can be found in Appendix M.

Summary

Responders to the *2008 Knowledge of Newly Licensed RNs Survey* found the statements listed in the survey to be representative of the knowledge necessary for safe and effective professional practice of newly licensed RNs. There were similar importance ratings of the knowledge statements for Newly Licensed RNs, RN Educators, RN Supervisors and SMEs.

CONCLUSIONS

Based on the reliability of the knowledge statement instrument; the survey of the non-responders; the validation of the knowledge statement importance ratings by SMEs; and the similarity of knowledge statement importance ratings by Newly Licensed RNs, RN Educators and RN Supervisors; the results of this survey can be used to inform item development.

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Wendt, A. and O'Neill, T. (2006). *Report of Findings from the 2005 RN Practice Analysis: Linking the NCLEX-RN® Examination to Practice.* Chicago: NCSBN.

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APPENDIX A: 2008 KNOWLEDGE SURVEY METHODOLOGY REVIEWERS

Gene Kramer, Ph.D. is director of testing for the American Dental Association. In this capacity, he is responsible for the practice analyses that provide the basis for their national licensing examinations. Dr Kramer has been managing these practice analyses and other psychometric analyses for more than 20 years.

Chad W. Buckendahl, Ph.D. is senior psychometrician at Alpine Testing Solutions, Inc. He has conducted practice analyses as the basis for several certification and licensing examinations and is well published on this topic. His research interests also include standard setting and computerized adaptive testing.

Gage Kingsbury, Ph.D. is vice president of research for the Northwest Evaluation Association. He has more than 25 years of experience in testing and psychometrics. He is a nationally recognized expert in developing computerized adaptive tests and has been on NCSBN's Joint Research Committee (JRC is an NCSBN sponsored advisory board) for more than 10 years.

Jerry Gorham, Ed.D. is senior psychometrician and manager at Educational Testing Services. He has been responsible for overseeing the quality licensure exams as well as participating in technical advisory boards with testing vendors such as Pearson VUE and Chauncey for more than 12 years.

APPENDIX B: SUBJECT MATTER EXPERT PANEL FOR THE *2008 KNOWLEDGE OF NEWLY LICENSED RN SURVEY*

<u>Area I</u>

Member: Roselyn DuFour, BSN, RN (served as bridging panelist)
Administrator/Chief Executive Officer (CEO)
Prestige Home Healthcare

Board: New Mexico State Board of Nursing

Specialty: Home Health

DuFour has 35 years of nursing experience and is currently the home care administrator/CEO for Prestige Home Healthcare where she employs and works with newly licensed RNs. Additionally, she is a certified facilitator for the New Mexico Department of Health, Public Health Division and a member of the National Association for Home Care and Hospice. She also serves as a Nursing Practice Advisory Committee Member for the New Mexico Board of Nursing.

Member: Debra Dawson, BSN, RNC
Unit Educator/Staff Nurse
Ivinson Memorial Hospital

Board: Wyoming State Board of Nursing

Specialty: Pediatrics/Labor and Delivery/Newborn Nursery

Dawson has 13 years of nursing experience, including practical experience as a staff nurse in labor and delivery where she works directly with newly licensed RNs. She is a fetal monitoring instructor for the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), as well as an instructor for pediatric advanced life support (PALS) and basic life support (BLS). She is also an active member of the Sigma Theta Tau.

Member: Kimberly Torgerson, RN
Staff Nurse
Exempla Good Samaritan Medical Center

Board: Colorado Board of Nursing

Specialty: Emergency Room/Trauma

Torgerson is a newly graduated nurse. She has practical experience as an emergency room/trauma nurse and is Trauma Nursing Core Course (TNCC) and Emergency Nursing Pediatric Course (ENPC) certi-fied. Additionally, she is a member of the Emergency Nurses Association (ENA) and hazardous material (HAZMAT) and mass casualty teams.

Area II

Member: Jennifer Bussen, MSN, RN
               Clinical Education Specialist
               Barnes-Jewish Hospital

Board: Missouri Board of Nursing

Specialty: Obstetrical/Gynecological Nursing

Bussen has 12 years of nursing experience, including practical experience in labor and delivery, mother/baby and special care nursery. She orients and mentors new graduates and is a member of the Association of Women's Health, Obstetric and Neonatal Nursing (AWHONN). Bussen is also a member of Sigma Theta Tau.

Member: Gwendolyn Oglesby-Odom, BSN, RN
               Clinical Director
               Care Collaborative Home Health Care

Board: Illinois Board of Nursing

Specialty: Home Health

Oglesby-Odom has nine years of nursing experience, including practical experience as a clinical director for home care services where she works with newly licensed RNs. She is a member of the American Public Health Association (APHA) and Sigma Theta Tau. Additionally, Oglesby-Odom is a Task Force Participant of the Illinois Department of Public Health, Adolescent Committee.

Member: Priscilla Jurkovich, MSN, RN
               Clinical Nurse Educator
               Sanford Health

Board: South Dakota Board of Nursing

Specialty: Labor/Delivery and Operating Room

Jurkovich has 24 years of nursing experience, including practical experience as a clinical nurse educator specializing in labor/delivery and operating room where she works with and trains newly licensed RNs. She served as Chapter President of the Association of Perioperative Registered Nurses (AORN). Additionally, Jurkovich is a nurse reviewer for the American Nurses Credentialing Center (ANCC).

Area III

Member: Cheryl Walker, BSN, RN
Nurse Manager
King's Daughter Medical Center

Board: Mississippi Board of Nursing

Specialty: Medical/Surgical/Telemetry

Walker has 30 years of nursing experience, including practical experience as a nurse manager for a Medical/Surgical/Telemetry Unit and Case Management department where she directly works with and trains newly licensed RNs. Additionally, she has experience in long-term care and home health care.

Member: Michele Pfaff, MSN, RN
Faculty
Carolinas College of Health Sciences

Board: North Carolina Board of Nursing

Specialty: Pediatrics

Pfaff has 18 years of nursing experience, including practical experience as a pediatrics nursing instructor where she teaches students in a clinical setting. She compiles data for the Educational Effectiveness Plan for the National League for Nursing (NLN) Accreditation Review Team and has served as President of the North Carolina Associate Degree Nursing Council. Pfaff is also an active member of Sigma Theta Tau.

Member: LaToya Rogers, MSN, RN
Clinical Assistant Professor
North Carolina A&T State University

Board: North Carolina Board of Nursing

Specialty: Adult Health and Pediatric Health/Nursing Education

Rogers has 12 years of nursing experience, including practical experience as a nurse educator in adult health and pediatric health where she teaches students in a clinical setting. She is a Certified Clinical Research Coordinator and is a member of the American Nurses Association (ANA) and Sigma Theta Tau. Additionally, Rogers is a member of the North Carolina Nurses Association Commission on Education and the North Carolina Nurses Association Committee on Legislature/Education.

Area IV

Member: Bridget Fillo, MS, FNP
Professor and Family Nurse Practitioner
New Hampshire Community Technical College

Board: New Hampshire Board of Nursing

Specialty: Family Practice

Fillo has 20 years of nursing experience, including practical experience as a faculty member and family nurse practitioner in various specialties (Medical/Surgical, obstetrics/gynecology and pediatrics). She is certified in advanced cardiac life support (ACLS).

Member: Amy Ma, DNP, FNP, RN
Assistant Professor and Clinical Nurse Practitioner
Long Island University and North General Hospital

Board: New York State Board of Nursing

Specialty: Medical/Surgical/Orthopedics

Ma has 10 years of nursing experience, including practical experience as a nurse educator and assistant professor in Medical/Surgical and woman's health. She is currently a clinical nurse practitioner who precepts newly graduated RNs. Ma also serves as a counselor and mentor to students.

Member: M. Marie Crudele, RN
RN Supervisor
Lakewood Voorhees Nursing Home

Board: New Jersey Board of Nursing

Specialty: Long Term Care

Crudele has eight years of nursing experience, including practical experience as a nursing supervisor in a long-term care facility, managing all departments and operations and being involved with new graduate orientation. Additionally, she has experience as a hospice nurse and is a certified hypnotherapist.

APPENDIX C: 2008 KNOWLEDGE OF NEWLY LICENSED RN SURVEY

NATIONAL COUNCIL OF STATE BOARDS OF NURSING (NCSBN®)
REGISTERED NURSE (RN)
NURSING KNOWLEDGE SURVEY

This survey is part of a study of the knowledge of newly licensed RNs in the U.S. and NCSBN Member Board jurisdictions. The study is being performed by NCSBN on behalf of your board of nursing. Please complete and return this form as soon as possible. This is your opportunity to contribute to the development of the NCLEX examination that future candidates will take.

INSTRUCTIONS

Please read each question carefully and respond by filling in the oval of the response that most closely represents your answer. When asked to write in information, print your answer legibly in the space provided.

As used in this survey, the **"client"** can be an individual, family, or community. "Clients" are the same as "residents" or "patients." Your answers will be kept confidential. Your individual responses to the questions will not be released.

MARKING INSTRUCTIONS:

- **Use a No. 2 pencil only.**
- Do not use pens.
- Make heavy dark marks that fill the oval completely.
- If you want to change an answer, erase completely.

RIGHT MARK
●
WRONG MARKS
⊘ ⊗ ⊝ ◯

1. What type(s) of nursing license do you hold?
   (Select ALL that apply)
   - ◯ Advanced Practice Registered Nurse (APRN)
   - ◯ Registered Nurse (RN)
   - ◯ Licensed Practical Nurse/Vocational Nurse (LPN/VN)

2. I am primarily: **(Mark only one)**
   - ◯ Newly Licensed RN
   - ◯ Nurse Educator
   - ◯ Nurse Supervisor

3. How long have you been in the above position? (For newly licensed RNs—how long since you have graduated from your nursing program?)

Years		Months	
⓪	⓪	⓪	⓪
①	①	①	①
②	②	②	②
③	③	③	③
④	④	④	④
⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨

PLEASE DO NOT WRITE IN THIS AREA
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SECTION 1: KNOWLEDGE STATEMENTS

This section contains a list of knowledge statements applicable to nursing practice in a variety of settings. For each knowledge statement, please mark the degree of importance, whether or not it applies to your practice setting. For each knowledge statement, one question is asked.

	Importance
Question - Importance: How important is the possession of this <u>knowledge</u> by a newly licensed RN for safe and effective professional practice, <u>regardless of specific practice setting</u>? (Select one). 1 = Not Important, 2 = Marginally Important, 3 = Moderately Important, 4 = Important, and 5 = Critically Important	1 = Not Important 2 = Marginally Important 3 = Moderately Important 4 = Important 5 = Critically Important

Knowledge of:

	Importance
1. available community resources for discharge planning	① ② ③ ④ ⑤
2. communication skills/language (e.g., professional, therapeutic, alternative forms for those with impaired communication)	① ② ③ ④ ⑤
3. how to provide/evaluate client/staff education	① ② ③ ④ ⑤
4. signs and symptoms of altered elimination (e.g., bowel, urinary)	① ② ③ ④ ⑤
5. client and care prioritization (who to see first, what to do first)	① ② ③ ④ ⑤
6. hand-off reporting process (e.g., transfer, shift report)	① ② ③ ④ ⑤
7. rules of delegation (who can delegate to whom)	① ② ③ ④ ⑤
8. tube feeding administration, maintenance, and complications	① ② ③ ④ ⑤
9. client rights and responsibilities	① ② ③ ④ ⑤
10. trade names for medications	① ② ③ ④ ⑤
11. treatment options to advocate for client	① ② ③ ④ ⑤
12. client confidentiality/privacy	① ② ③ ④ ⑤
13. additional advocacy resources (e.g., social worker, chain of command, translator)	① ② ③ ④ ⑤
14. critical signs and symptoms (identify and intervene)	① ② ③ ④ ⑤
15. data collection methods (e.g., chart review, incident reports)	① ② ③ ④ ⑤
16. acceptable methods of documentation (e.g., "do not use" abbreviations)	① ② ③ ④ ⑤
17. quality indicators (determined by institution regarding care)	① ② ③ ④ ⑤
18. team member roles and responsibilities	① ② ③ ④ ⑤
19. referral process to interdisciplinary team members	① ② ③ ④ ⑤
20. order verification and clarification processes	① ② ③ ④ ⑤
21. phototherapy indications, techniques, equipment, and safety precautions	① ② ③ ④ ⑤
22. advance directive process (e.g., obtain, update, present on chart)	① ② ③ ④ ⑤
23. supply and resource management (e.g., obtain and reconcile supplies)	① ② ③ ④ ⑤
24. Nursing Code of Ethics	① ② ③ ④ ⑤
25. required reporting elements and process (e.g., abuse/neglect, communicable disease, gun shot wound, dog bite)	① ② ③ ④ ⑤
26. educational tools/resources available for client	① ② ③ ④ ⑤
27. scope of practice (for self and others)	① ② ③ ④ ⑤
28. staff resources (e.g., chain of command, charge nurse)	① ② ③ ④ ⑤
29. consent process (e.g., informed consent, implied consent, emancipated minor)	① ② ③ ④ ⑤
30. conflict management principles	① ② ③ ④ ⑤
31. ethical dilemmas for area of practice and actions to be taken (personal/societal)	① ② ③ ④ ⑤
32. continuing education requirements for professional development needs	① ② ③ ④ ⑤
33. evidence-based practice resources (e.g., journals, research, best practices)	① ② ③ ④ ⑤
34. nursing/medical terminology	① ② ③ ④ ⑤
35. time management techniques	① ② ③ ④ ⑤
36. standards of practice	① ② ③ ④ ⑤
37. unsafe practice reporting process	① ② ③ ④ ⑤
38. infection control principles	① ② ③ ④ ⑤
39. signs and symptoms of occupational/environmental exposures (e.g., lead, asbestos)	① ② ③ ④ ⑤
40. risk assessment tools (e.g., fall risk, Braden scale, home safety)	① ② ③ ④ ⑤
41. biohazardous materials, handling, disposal, and resources available (e.g., OSHA, Material Safety Data Sheet {MSDS})	① ② ③ ④ ⑤
42. security plan/role in response to security alert	① ② ③ ④ ⑤
43. ergonomic principles (applied to self and client)	① ② ③ ④ ⑤
44. specific client identification procedures	① ② ③ ④ ⑤
45. intended purpose and function of equipment and trouble-shooting procedures	① ② ③ ④ ⑤
46. disaster response plan/role	① ② ③ ④ ⑤
47. types/application/monitoring of restraints	① ② ③ ④ ⑤
48. signs/symptoms/interventions of an allergic or sensitivity reaction	① ② ③ ④ ⑤
49. signs and symptoms of communicable diseases	① ② ③ ④ ⑤
50. locating and maintaining emergency response equipment	① ② ③ ④ ⑤
51. physical assessment techniques	① ② ③ ④ ⑤
52. components of comprehensive health history data	① ② ③ ④ ⑤
53. anatomy and physiology (normal body systems, identify alterations)	① ② ③ ④ ⑤
54. perinatal care and complications (antepartum, intrapartum, postpartum)	① ② ③ ④ ⑤
55. normal newborn transition/growth	① ② ③ ④ ⑤
56. hemodialysis techniques, methods, and equipment	① ② ③ ④ ⑤
57. adult aging process	① ② ③ ④ ⑤
58. methods to evaluate client ability for self care	① ② ③ ④ ⑤

SECTION 1: KNOWLEDGE STATEMENTS (CONTINUED)

Question - Importance:
How important is the possession of this <u>knowledge</u> by a newly licensed RN for safe
and effective professional practice, <u>regardless of specific practice setting</u>?
(Select one). 1 = Not Important, 2 = Marginally Important, 3 = Moderately Important,
4 = Important, and 5 = Critically Important

Knowledge of:	Importance
	1 = Not Important, 2 = Marginally Important, 3 = Moderately Important, 4 = Important, 5 = Critically Important
59. targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)	① ② ③ ④ ⑤
60. normal growth and development	① ② ③ ④ ⑤
61. high-risk behaviors (e.g., smoking)	① ② ③ ④ ⑤
62. health maintenance recommendations	① ② ③ ④ ⑤
63. common barriers to routine health care	① ② ③ ④ ⑤
64. client learning assessment tools/learning styles	① ② ③ ④ ⑤
65. population and community health risk factors	① ② ③ ④ ⑤
66. available genetic resources for client referral	① ② ③ ④ ⑤
67. cultural diversity and implications for care (e.g., religion, ethnicity, world view)	① ② ③ ④ ⑤
68. stress management and coping strategies	① ② ③ ④ ⑤
69. signs/symptoms/treatment of abuse/neglect	① ② ③ ④ ⑤
70. counseling and therapeutic techniques	① ② ③ ④ ⑤
71. therapeutic environment (how to establish/maintain)	① ② ③ ④ ⑤
72. signs/symptoms/management of toxicity, dependency, and withdrawal	① ② ③ ④ ⑤
73. stages of death and dying	① ② ③ ④ ⑤
74. grief processes (identify and support)	① ② ③ ④ ⑤
75. group dynamics	① ② ③ ④ ⑤
76. cycle of violence (identify family/community dynamics, intervene)	① ② ③ ④ ⑤
77. safety precautions for violent behavior	① ② ③ ④ ⑤
78. diversity of family structures and functions	① ② ③ ④ ⑤
79. addictive behaviors (signs, symptoms, and interventions)	① ② ③ ④ ⑤
80. behavioral management techniques (e.g., positive reinforcement, setting limits)	① ② ③ ④ ⑤
81. signs and symptoms of caregiver burnout	① ② ③ ④ ⑤
82. intervention techniques for clients with altered perceptions	① ② ③ ④ ⑤
83. body image disturbance and appropriate interventions	① ② ③ ④ ⑤
84. components of intake and output	① ② ③ ④ ⑤
85. application of math (drip factors, I/O)	① ② ③ ④ ⑤
86. leadership and management skills	① ② ③ ④ ⑤
87. post-mortem care (institutional policy and procedures)	① ② ③ ④ ⑤
88. basic information on organ donation and tissue care	① ② ③ ④ ⑤
89. irrigation procedures (e.g., eye, ear, bladder)	① ② ③ ④ ⑤
90. alternative/complementary therapies (e.g., music/relaxation techniques, herbal therapies)	① ② ③ ④ ⑤
91. insertion, maintenance, and removal process for tubes and catheters	① ② ③ ④ ⑤
92. orthopedic devices and their use (e.g., traction , splint, braces)	① ② ③ ④ ⑤
93. interventions to promote sleep/rest	① ② ③ ④ ⑤
94. application and maintenance of devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)	① ② ③ ④ ⑤
95. pain scales (identify and apply)	① ② ③ ④ ⑤
96. non-pharmacological comfort measures (e.g., relaxation techniques)	① ② ③ ④ ⑤
97. signs and symptoms of alterations in nutritional status	① ② ③ ④ ⑤
98. inflammatory process (identification and treatment)	① ② ③ ④ ⑤
99. institutional policies and regulations regarding client care	① ② ③ ④ ⑤
100. urinary and bowel diversion procedures	① ② ③ ④ ⑤
101. measures to maintain skin integrity	① ② ③ ④ ⑤
102. diet and nutritional needs relative to disease process	① ② ③ ④ ⑤
103. activities of daily living (ADL) and instrumental activities of daily living (IADL)	① ② ③ ④ ⑤
104. trade names for medications	① ② ③ ④ ⑤
105. peripheral intravenous line, insertion, management, supplies, and complications	① ② ③ ④ ⑤
106. proper handling and disposal of controlled substances (e.g., counting narcotics, wasting narcotics)	① ② ③ ④ ⑤
107. epidural anesthesia principles and care	① ② ③ ④ ⑤
108. rights of medication administration (identify and apply)	① ② ③ ④ ⑤
109. parenteral nutrition administration methods and maintenance	① ② ③ ④ ⑤
110. blood administration procedures (e.g., verify compatibility, reactions, treatments)	① ② ③ ④ ⑤
111. techniques used to access and maintain central venous access devices (tunneled, implanted, central lines)	① ② ③ ④ ⑤
112. medications (e.g., therapeutic effects, side effects, common cross allergies, interactions)	① ② ③ ④ ⑤
113. medication administration procedures (preparation, titration, storage)	① ② ③ ④ ⑤
114. pharmacological measures to manage pain	① ② ③ ④ ⑤
115. assistive devices and equipment (availability and use)	① ② ③ ④ ⑤
116. generic drug names	① ② ③ ④ ⑤
117. drug classifications	① ② ③ ④ ⑤
118. specific medication names	① ② ③ ④ ⑤

PLEASE DO NOT WRITE IN THIS AREA

SECTION 1: KNOWLEDGE STATEMENTS (CONTINUED)

Question - Importance: How important is the possession of this <u>knowledge</u> by a newly licensed RN for safe and effective professional practice, <u>regardless of specific practice setting</u>? (Select one). 1 = Not Important, 2 = Marginally Important, 3 = Moderately Important, 4 = Important, and 5 = Critically Important	Importance				
Knowledge of:	1 = Not Important	2 = Marginally Important	3 = Moderately Important	4 = Important	5 = Critically Important
119. medication reconciliation processes	①	②	③	④	⑤
120. moderate sedation (complications, scores, interventions)	①	②	③	④	⑤
121. indications and contraindications of treatments/procedures	①	②	③	④	⑤
122. effect of co-morbidities on medical condition/disease process	①	②	③	④	⑤
123. indications/techniques for glucose monitoring and quality control	①	②	③	④	⑤
124. risk reduction concepts and techniques	①	②	③	④	⑤
125. vital sign measurement, interventions related to changes	①	②	③	④	⑤
126. tests/treatment/procedures appropriate for client needs	①	②	③	④	⑤
127. when and how to perform focused assessments/reassessments (e.g., pain systems, disease process)	①	②	③	④	⑤
128. peri-operative care and risk reduction strategies (e.g., embolism prophylaxis, site verification, time out process, sponge counts)	①	②	③	④	⑤
129. intra-operative environment (e.g., sterile technique, roles and responsibilities, equipment requirements)	①	②	③	④	⑤
130. process to report critical diagnostic test results	①	②	③	④	⑤
131. how to perform diagnostic testing (e.g., electrocardiogram, O_2 saturation, urine specific gravity)	①	②	③	④	⑤
132. fetal heart rate monitoring and recognition of fetal well-being/distress	①	②	③	④	⑤
133. specimen collection techniques (e.g., blood, wound cultures, stool, urine specimens) and equipment/supplies used	①	②	③	④	⑤
134. hemodynamics, tissue perfusion, and homeostasis principles (cerebral, cardiac, peripheral)	①	②	③	④	⑤
135. signs/symptoms/treatments or impaired ventilation/oxygenation	①	②	③	④	⑤
136. drainage devices and related equipment (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)	①	②	③	④	⑤
137. safe and effective use of body temperature control devices (e.g., cooling blankets)	①	②	③	④	⑤
138. ventilator management (e.g., suction, oxygen)	①	②	③	④	⑤
139. nursing role during invasive procedures (e.g., central line placement)	①	②	③	④	⑤
140. ostomy care procedures and supplies	①	②	③	④	⑤
141. peritoneal dialysis techniques, methods, and equipment	①	②	③	④	⑤
142. immunization schedule	①	②	③	④	⑤
143. pulmonary hygiene techniques, methods, and equipment	①	②	③	④	⑤
144. telemetry monitoring and interpretation of cardiac rhythms	①	②	③	④	⑤
145. acute and chronic disease processes and appropriate care	①	②	③	④	⑤
146. transcription protocol/processes (how to transcribe orders)	①	②	③	④	⑤
147. post operative care (e.g., client response to surgery)	①	②	③	④	⑤
148. cardiac pacing methods, techniques, and equipment	①	②	③	④	⑤
149. principles to maintain arterial lines	①	②	③	④	⑤
150. signs and symptoms of overhydration and dehydration	①	②	③	④	⑤
151. wounds and wound care (e.g., products, procedures, and treatment)	①	②	③	④	⑤
152. tracheostomy care and supplies	①	②	③	④	⑤
153. recognizing/activating/providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	①	②	③	④	⑤

Page 4

SECTION 1: KNOWLEDGE STATEMENTS (CONTINUED)

1. Is it important for the entry-level RN to memorize the following laboratory values?

◯ Yes	◯ No	normal lab value for BUN (blood, urea, nitrogen)
◯ Yes	◯ No	normal lab value for arterial blood gases (pH, PO_2, PCO_2, SaO_2, HCO_3)
◯ Yes	◯ No	normal lab value for cholesterol (total)
◯ Yes	◯ No	normal lab value for glucose
◯ Yes	◯ No	normal lab value for hematocrit (Hct)
◯ Yes	◯ No	normal lab value for hemoglobin (Hgb)
◯ Yes	◯ No	normal lab value for hemoglobin A1C (HgbA1C)
◯ Yes	◯ No	normal lab value for platelets
◯ Yes	◯ No	normal lab value for potassium (K^+)
◯ Yes	◯ No	normal lab value for red blood count (RBC)
◯ Yes	◯ No	normal lab value for sodium (Na^+)
◯ Yes	◯ No	normal lab value for white blood count (WBC)
◯ Yes	◯ No	normal lab value for albumin (blood)
◯ Yes	◯ No	normal lab value for ALT (SGPT)
◯ Yes	◯ No	normal lab value for ammonia
◯ Yes	◯ No	normal lab value for AST (SGOT)
◯ Yes	◯ No	normal lab value for bilirubin
◯ Yes	◯ No	normal lab value for bleeding time
◯ Yes	◯ No	normal lab value for cholesterol (HDL and LDL)
◯ Yes	◯ No	normal lab value for creatinine
◯ Yes	◯ No	normal lab value for digoxin
◯ Yes	◯ No	normal lab value for ESR
◯ Yes	◯ No	normal lab value for lithium
◯ Yes	◯ No	normal lab value for magnesium
◯ Yes	◯ No	normal lab value for PTT and APTT
◯ Yes	◯ No	normal lab value for phosphorus/phosphate
◯ Yes	◯ No	normal lab value for protein (total)
◯ Yes	◯ No	normal lab value for prothrombin time (PT)
◯ Yes	◯ No	normal lab value for urine (alb, pH, white blood cell count [WBC] and %T lymphocytes [differential])
◯ Yes	◯ No	normal lab value for INR

2. How well did the survey cover the important knowledge areas a newly licensed RN should possess, regardless of the practice setting?

◯ Very well   ◯ Well   ◯ Adequately   ◯ Poorly

Please list any important knowledge areas you believe that a newly licensed RN should possess that are missing from the survey.

_____

_____

_____

_____

_____

_____

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SECTION 2: WORK ENVIRONMENT

INSTRUCTIONS FOR *NURSE EDUCATORS:* Choose the following clinical setting or practice area that most accurately describes where you supervise your students.

INSTRUCTIONS FOR *NURSE SUPERVISORS:* Choose the following clinical setting that most accurately describes the general population you supervise and/or the unit on which you work.

INSTRUCTIONS FOR *NEWLY-LICENSED RNs:* Choose the following clinical setting or practice area that most accurately describes where you work.

1. Which of the following **best** describes your area of practice? **(Select all that apply)**
   - ◯ Well clients, possibly with minor illnesses
   - ◯ OB (Maternity) clients
   - ◯ Clients with stabilized chronic conditions
   - ◯ Clients with unstabilized chronic conditions
   - ◯ Clients with acute conditions, including clients with medical, surgical or critical conditions
   - ◯ Clients at end of life
   - ◯ Clients with behavioral/emotional conditions
   - ◯ Other, please specify: _____

2. Which of the following **best** describes the ages of the majority of your clients? **(Select all that apply)**
   - ◯ Newborn (less than 1 month)
   - ◯ Infant/child (1 month-12 years)
   - ◯ Adolescent (ages 13-18)
   - ◯ Young Adult (ages 19-30)
   - ◯ Adult (ages 31-64)
   - ◯ Older Adult (65-85)
   - ◯ Older Adult (Over 85)

3. Which of the following choices **best** describes your employment setting/specialty area? If you work mainly in one setting, fill in the appropriate oval for that one setting. If you work in more than one setting, fill in the appropriate oval for all settings where you spend at least one-half of your time. **(Select no more than two answers)**
   - ◯ Critical care (e.g., ICU, CCU, step-down units, pediatric/neonatal intensive care, emergency department, post-anesthesia recovery unit)
   - ◯ Medical-surgical unit or any of its sub-specialties (e.g., oncology, orthopedics, neurology)
   - ◯ Pediatrics
   - ◯ Nursery
   - ◯ Labor and delivery
   - ◯ Postpartum unit
   - ◯ Psychiatry or any of its sub-specialties (e.g., detox)
   - ◯ Operating room, including outpatient surgery and surgicenters
   - ◯ Nursing home, skilled or intermediate care
   - ◯ Other long-term care (e.g., residential care, developmental disability/mental retardation care)
   - ◯ Rehabilitation
   - ◯ Subacute unit
   - ◯ Transitional care unit
   - ◯ Physician/APRN/dentist office
   - ◯ Occupational health
   - ◯ Outpatient clinic
   - ◯ Home health, including visiting nurses associations
   - ◯ Public health
   - ◯ Student/school health
   - ◯ Hospice care
   - ◯ Prison
   - ◯ Other, please specify: _____

4. Which of the following **best** describes the type of facility/organization where your employment setting/specialty area is located? **(Select only one)**
   - ◯ Hospital
   - ◯ Long-term care
   - ◯ Community-based or ambulatory care facility/organization (including public health department, visiting nurses association, home health, physician/APRN/dentist office, clinic, school, prison, etc.)
   - ◯ Other, please specify: _____

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SECTION 3: DEMOGRAPHIC INFORMATION

1. What is your gender?
   - ◯ Male
   - ◯ Female

2. What is your age in years? Years

   $\begin{array}{cc} 0 & 0 \\ 1 & 1 \\ 2 & 2 \\ 3 & 3 \\ 4 & 4 \\ 5 & 5 \\ 6 & 6 \\ 7 & 7 \\ 8 & 8 \\ 9 & 9 \end{array}$

3. Which of the following is **most descriptive** of your racial/ethnic background? **(Select ONE answer)**
   - ◯ African American
   - ◯ Asian Indian
   - ◯ Asian Other
   - ◯ Hispanic
   - ◯ Native American
   - ◯ Pacific Islander
   - ◯ White - not of Hispanic origin
   - ◯ Other

4. What is your primary language?
   - ◯ English
   - ◯ English and Another Language
   - ◯ Another Language

5. What is the highest degree completed that led to your current position?
   - ◯ RN - Diploma in U.S.
   - ◯ RN - Associate Degree in U.S.
   - ◯ RN - Baccalaureate Degree in U.S.
   - ◯ RN - Generic Masters Degree in U.S.
   - ◯ RN - Masters (Nurse Practitioner)
   - ◯ RN - Masters (Clinical Nurse Specialist)
   - ◯ RN - Generic Doctorate in U.S. (e.g., ND or PhD)
   - ◯ Any nursing program NOT located in the U.S.
   - ◯ Other program (please specify): _____

SECTION 4: COMMENTS

If we need additional information in order to clarify the results of this study, we may call and/or e-mail some participants. If you would be willing to answer a few additional questions by phone or e-mail, please provide a number where you can be reached during the day or early evening.

Daytime or Early Evening Phone Number with Area Code:

Name: _____

(_ _) _ _ _ - _ _ _ _

$\begin{array}{cccccccccc} 0&0&0&0&0&0&0&0&0&0 \\ 1&1&1&1&1&1&1&1&1&1 \\ 2&2&2&2&2&2&2&2&2&2 \\ 3&3&3&3&3&3&3&3&3&3 \\ 4&4&4&4&4&4&4&4&4&4 \\ 5&5&5&5&5&5&5&5&5&5 \\ 6&6&6&6&6&6&6&6&6&6 \\ 7&7&7&7&7&7&7&7&7&7 \\ 8&8&8&8&8&8&8&8&8&8 \\ 9&9&9&9&9&9&9&9&9&9 \end{array}$

E-mail address: _____

THANK YOU FOR PARTICIPATING IN THIS IMPORTANT WORK!

SECTION 3: DEMOGRAPHIC INFORMATION

1. What is your gender?

    ◯ Male
    ◯ Female

2. What is your age in years?   Years

⓪	⓪
①	①
②	②
③	③
④	④
⑤	⑤
⑥	⑥
⑦	⑦
⑧	⑧
⑨	⑨

3. Which of the following is **most descriptive** of your
    racial/ethnic background? **(Select ONE answer)**

    ◯ African American
    ◯ Asian Indian
    ◯ Asian Other
    ◯ Hispanic
    ◯ Native American
    ◯ Pacific Islander
    ◯ White - not of Hispanic origin
    ◯ Other

4. What is your primary language?

    ◯ English
    ◯ English and Another Language
    ◯ Another Language

5. What is the highest degree completed that led to your current position?

    ◯ RN - Diploma in U.S.
    ◯ RN - Associate Degree in U.S.
    ◯ RN - Baccalaureate Degree in U.S.
    ◯ RN - Generic Masters Degree in U.S.
    ◯ RN - Masters (Nurse Practitioner)
    ◯ RN - Masters (Clinical Nurse Specialist)
    ◯ RN - Generic Doctorate in U.S. (e.g., ND or PhD)
    ◯ Any nursing program NOT located in the U.S.
    ◯ Other program (please specify): _____

SECTION 4: COMMENTS

If we need additional information in order to clarify the results of this study, we may call and/or e-mail some participants. If you would be willing to answer a few additional questions by phone or e-mail, please provide a number where you can be reached during the day or early evening.

Daytime or Early Evening Phone Number with Area Code:

Name: _____

E-mail address: _____

(		)			┼					
⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪	⓪
①	①	①	①	①	①	①	①	①	①	①
②	②	②	②	②	②	②	②	②	②	②
③	③	③	③	③	③	③	③	③	③	③
④	④	④	④	④	④	④	④	④	④	④
⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧	⑧	⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨	⑨	⑨	⑨	⑨	⑨	⑨

THANK YOU FOR PARTICIPATING IN THIS IMPORTANT WORK!

APPENDIX D: SME KNOWLEDGE STATEMENT RATINGS RANK ORDERED BY AVERAGE IMPORTANCE

Preface: How important is this knowledge by a newly licensed RN for safe and effective professional practice regardless of specific practice setting?

SME Knowledge Statement Ratings Rank Ordered by Average Importance*		SME Ratings		
Survey Position #	Knowledge Statements	N	Avg	Std. Err.
141	peritoneal dialysis techniques, methods, and equipment	9	2.67	0.29
23	supply and resource management (e.g. obtain and reconcile supplies)	9	2.78	0.28
56	hemodialysis techniques, methods and equipment	9	2.78	0.32
66	available genetic resources for client referral	9	2.78	0.32
21	phototherapy indications, techniques, equipment, and safety precautions	9	2.89	0.39
90	alternative/complementary therapies (e.g., music/relaxation techniques, herbal therapies)	9	2.89	0.26
148	cardiac pacing methods, techniques, and equipment	9	3.00	0.37
107	epidural anesthesia principles and care	9	3.11	0.26
149	principles to maintain arterial lines	8	3.13	0.40
65	population and community health risk factors	9	3.22	0.40
88	basic information on organ donation and tissue care	9	3.22	0.15
10	trade names for medications	9	3.33	0.37
15	data collection methods (e.g., chart review, incident reports)	9	3.33	0.33
58	methods to evaluate client ability for self care	9	3.33	0.29
59	targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)	9	3.33	0.29
78	diversity of family structures and functions	9	3.33	0.29
87	post-mortem care (institutional policy and procedures)	9	3.33	0.29
89	irrigation procedures (e.g., eye, ear, bladder)	9	3.33	0.17
92	orthopedic devices and their use (e.g., traction, splint, braces)	9	3.33	0.24
93	interventions to promote sleep/rest	9	3.33	0.29
100	urinary and bowel diversion procedures	9	3.33	0.24
140	ostomy care procedures and supplies	9	3.33	0.37
17	quality indicators (determined by institution regarding care)	9	3.44	0.29
46	disaster response plan/role	9	3.44	0.18
55	normal newborn transition/growth	9	3.44	0.29
62	health maintenance recommendations	9	3.44	0.34
75	group dynamics	9	3.44	0.24
79	addictive behaviors (signs, symptoms and interventions)	9	3.44	0.24
104	trade names for medications	9	3.44	0.41
120	moderate sedation (complications, scores, interventions)	9	3.44	0.29
138	ventilator management (e.g., suction, oxygen)	9	3.44	0.34
142	immunization schedule	9	3.44	0.24
11	treatment options to advocate for client	9	3.56	0.34
63	common barriers to routine health care	9	3.56	0.24
64	client learning assessment tools/learning styles	9	3.56	0.38

SME Knowledge Statement Ratings Rank Ordered by Average Importance*				
		SME Ratings		
Survey Position #	Knowledge Statements	N	Avg	Std. Err.
70	counseling and therapeutic techniques	9	3.56	0.29
80	behavioral management techniques (e.g., positive reinforcement, setting limits)	9	3.56	0.34
81	signs and symptoms of caregiver burnout	9	3.56	0.29
83	body image disturbance and appropriate interventions	9	3.56	0.24
132	fetal heart rate monitoring and recognition of fetal well-being/distress	9	3.56	0.41
137	safe and effective use of body temperature control devices (e.g., cooling blankets)	9	3.56	0.41
144	telemetry monitoring and interpretation of cardiac rhythms	9	3.56	0.18
152	tracheostomy care and supplies	9	3.56	0.41
8	tube feeding administration, maintenance, and complications	9	3.67	0.24
18	team member roles and responsibilities	9	3.67	0.17
19	referral process to interdisciplinary team members	9	3.67	0.24
32	continuing education requirements for professional development needs	9	3.67	0.29
33	evidence-based practice resources (e.g., journals, research, best practices)	9	3.67	0.33
42	security plan/role in response to security alert	9	3.67	0.24
57	adult aging process	9	3.67	0.33
61	high risk behaviors (e.g., smoking)	9	3.67	0.33
71	therapeutic environment (how to establish/maintain)	9	3.67	0.29
86	leadership and management skills	9	3.67	0.37
99	institutional policies and regulations regarding client care	9	3.67	0.24
115	assistive devices and equipment (availability and use)	9	3.67	0.17
133	specimen collection techniques (e.g., blood, wound cultures, stool, urine specimens) and equipment/supplies used	9	3.67	0.37
143	pulmonary hygiene techniques, methods, and equipment	9	3.67	0.29
151	wounds and wound care (e.g., products, procedures, and treatment)	9	3.67	0.37
3	how to provide/evaluate client/staff education	9	3.78	0.28
13	additional advocacy resources (e.g., social worker, chain of command, translator)	9	3.78	0.22
47	types/application/monitoring of restraints	9	3.78	0.22
60	normal growth and development	9	3.78	0.32
67	cultural diversity and implications for care (e.g., religion, ethnicity, world view)	9	3.78	0.22
72	signs/symptoms/management of toxicity, dependency, and withdrawal	9	3.78	0.32
82	intervention techniques for clients with altered perceptions	9	3.78	0.22
94	application and maintenance of devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)	9	3.78	0.22
96	non-pharmacological comfort measures (e.g., relaxation techniques)	9	3.78	0.22
103	activities of daily living (ADL) and instrumental activities of daily living (IADL)	9	3.78	0.32
131	how to perform diagnostic testing (e.g., electrocardiogram, O2 saturation, urine specific gravity)	9	3.78	0.28
136	drainage devices and related equipment (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)	9	3.78	0.40

		SME Ratings		
Survey Position #	Knowledge Statements	N	Avg	Std. Err.
139	nursing role during invasive procedures (e.g., central line placement)	9	3.78	0.32
1	available community resources for discharge planning	9	3.89	0.20
6	hand-off/reporting process (e.g., transfer, shift report)	9	3.89	0.31
30	conflict management principles	9	3.89	0.35
31	ethical dilemmas for area of practice and actions to be taken (personal/societal)	9	3.89	0.26
39	signs and symptoms of occupational/environmental exposures (e.g., lead, asbestos)	9	3.89	0.31
41	biohazardous materials, handling, disposal, and resources available (e.g., OSHA, Material Safety Data Sheet {MSDS})	9	3.89	0.20
43	ergonomic principles (applied to self and client)	9	3.89	0.11
54	perinatal care and complications (antepartum, intrapartum, postpartum)	9	3.89	0.26
68	stress management and coping strategies	9	3.89	0.26
73	stages of death and dying	9	3.89	0.20
74	grief processes (identify and support)	9	3.89	0.20
76	cycle of violence (identify family/community dynamics, intervene)	9	3.89	0.20
97	signs and symptoms of alterations in nutritional status	9	3.89	0.20
98	inflammatory process (identification and treatment)	9	3.89	0.20
109	parenteral nutrition administration methods and maintenance	9	3.89	0.31
124	risk reduction concepts and techniques	9	3.89	0.31
129	intra-operative environment (e.g, sterile technique, roles and responsibilities, equipment requirements)	9	3.89	0.35
146	transcription protocol/processes (how to transcribe orders)	9	3.89	0.26
7	rules of delegation (who can delegate to whom)	9	4.00	0.24
26	educational tools/resources available for client	9	4.00	0.24
28	staff resources (e.g., chain of command, charge nurse)	9	4.00	0.29
35	time management techniques	9	4.00	0.33
37	unsafe practice reporting process	9	4.00	0.17
40	risk assessment tools (e.g., fall risk, Braden scale, home safety)	9	4.00	0.17
45	intended purpose and function of equipment and trouble-shooting procedures	9	4.00	0.17
77	safety precautions for violent behavior	9	4.00	0.17
91	insertion, maintenance, and removal process for tubes and catheters	9	4.00	0.17
95	pain scales (identify and apply)	9	4.00	0.24
111	techniques used to access and maintain central venous access devices (tunneled, implanted, central lines)	9	4.00	0.37
116	generic drug names	9	4.00	0.33
118	specific medication names	9	4.00	0.24
119	medication reconciliation processes	9	4.00	0.17
128	peri-operative care and risk reduction strategies (e.g., embolism prophylaxis, site verification, time out process, sponge counts)	9	4.00	0.29
134	hemodynamics, tissue perfusion and homeostasis principles (cerebral, cardiac, peripheral)	9	4.00	0.33
145	acute and chronic disease processes and appropriate care	9	4.00	0.24

SME Knowledge Statement Ratings Rank Ordered by Average Importance*				
		SME Ratings		
Survey Position #	Knowledge Statements	N	Avg	Std. Err.
16	acceptable methods of documentation (e.g., "do not use" abbreviations)	9	4.11	0.26
22	advance directive process (e.g., obtain, update, present on chart)	9	4.11	0.31
50	locating and maintaining emergency response equipment	9	4.11	0.31
102	diet and nutritional needs relative to disease process	9	4.11	0.20
117	drug classifications	9	4.11	0.26
4	signs and symptoms of altered elimination (e.g., bowel, urinary)	9	4.22	0.15
25	required reporting elements and process (e.g., abuse/neglect, communicable disease, gun shot wound, dog bite)	9	4.22	0.22
34	nursing/medical terminology	9	4.22	0.15
49	signs and symptoms of communicable diseases	9	4.22	0.22
101	measures to maintain skin integrity	9	4.22	0.22
126	tests/treatment/procedures appropriate for client needs	9	4.22	0.22
147	post operative care (e.g., client response to surgery)	9	4.22	0.22
150	signs and symptoms of overhydration and dehydration	9	4.22	0.15
2	communication skills/language (e.g., professional, therapeutic, alternative forms for those with impaired communication)	9	4.33	0.24
20	order verification and clarification processes	9	4.33	0.24
24	Nursing Code of Ethics	9	4.33	0.17
29	consent process (e.g., informed consent, implied consent, emancipated minor)	9	4.33	0.29
38	infection control principles	9	4.33	0.17
44	specific client identification procedures	9	4.33	0.24
52	components of comprehensive health history data	9	4.33	0.17
69	signs/symptoms/treatment of abuse/neglect	9	4.33	0.17
84	components of intake and output	9	4.33	0.17
9	client rights and responsibilities	9	4.44	0.18
110	blood administration procedures (e.g., verify compatibility, reactions, treatments)	9	4.44	0.24
121	indications and contraindications of treatments/procedures	9	4.44	0.18
123	indications/techniques for glucose monitoring and quality control	9	4.44	0.18
12	client confidentiality/privacy	9	4.56	0.18
36	standards of practice	9	4.56	0.18
85	application of math (drip factors, I/O)	9	4.56	0.18
105	peripheral intravenous line, insertion, management, supplies and complications	9	4.56	0.24
106	proper handling and disposal of controlled substances (e.g, counting narcotics, wasting narcotics)	9	4.56	0.24
122	effect of co-morbidities on medical condition/ disease process	9	4.56	0.18
127	when and how to perform focused assessments/reassessments (e.g., pain systems, disease process)	9	4.56	0.18
130	process to report critical diagnostic test results	9	4.56	0.18
5	client and care prioritization (who to see first, what to do first)	9	4.67	0.24
27	scope of practice (for self and others)	9	4.67	0.17

		SME Ratings		
Survey Position #	**Knowledge Statements**	**N**	**Avg**	**Std. Err.**
51	physical assessment techniques	9	4.67	0.17
53	anatomy and physiology (normal body systems, identify alterations)	9	4.67	0.17
112	medications (e.g., therapeutic effects, side effects, common cross allergies, interactions)	9	4.67	0.24
114	pharmacological measures to manage pain	9	4.67	0.17
125	vital sign measurement, interventions related to changes	9	4.67	0.17
135	signs/symptoms/treatments of impaired ventilation/oxygenation	9	4.67	0.17
153	recognizing/activating/providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	8	4.75	0.16
48	signs/symptoms/interventions of an allergic or sensitivity reaction	9	4.78	0.15
113	medication administration procedures (preparation, titration, storage)	9	4.78	0.15
14	critical signs and symptoms (identify and intervene)	8	4.88	0.13
108	rights of medication administration (identify and apply)	9	4.89	0.11

SME Knowledge Statement Ratings Rank Ordered by Average Importance*

* Activities are rank ordered from least to most SME importance rating.

APPENDIX E: NEWLY LICENSED RN AND SME KNOWLEDGE STATEMENT RATINGS RANK ORDERED BY NEWLY LICENSED RN AVERAGE IMPORTANCE

Preface: How important is this knowledge by a newly licensed RN for safe and effective professional practice regardless of specific practice setting?

Survey Position #	Knowledge Statements	Newly Licensed RNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
66	available genetic resources for client referral	592	2.84	0.04	9	2.78	0.32	0.06
90	alternative/complementary therapies (e.g., music/relaxation techniques, herbal therapies)	593	3.10	0.04	9	2.89	0.26	0.21
23	supply and resource management (e.g. obtain and reconcile supplies)	591	3.13	0.04	9	2.78	0.28	0.35
21	phototherapy indications, techniques, equipment, and safety precautions	592	3.16	0.05	9	2.89	0.39	0.27
75	group dynamics	593	3.19	0.04	9	3.44	0.24	-0.26
142	immunization schedule	602	3.20	0.04	9	3.44	0.24	-0.24
87	post-mortem care (institutional policy and procedures)	592	3.27	0.04	9	3.33	0.29	-0.06
88	basic information on organ donation and tissue care	592	3.28	0.04	9	3.22	0.15	0.05
59	targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)	593	3.28	0.04	9	3.33	0.29	-0.05
78	diversity of family structures and functions	592	3.30	0.04	9	3.33	0.29	-0.04
65	population and community health risk factors	593	3.34	0.04	9	3.22	0.40	0.12
17	quality indicators (determined by institution regarding care)	593	3.37	0.04	9	3.44	0.29	-0.08
83	body image disturbance and appropriate interventions	593	3.41	0.04	9	3.56	0.24	-0.14
33	evidence-based practice resources (e.g., journals, research, best practices)	593	3.41	0.04	9	3.67	0.33	-0.25
19	referral process to interdisciplinary team members	592	3.42	0.04	9	3.67	0.24	-0.25
1	available community resources for discharge planning	593	3.43	0.04	9	3.89	0.20	-0.46
30	conflict management principles	592	3.45	0.04	9	3.89	0.35	-0.44
141	peritoneal dialysis techniques, methods, and equipment	601	3.46	0.04	9	2.67	0.29	0.79
63	common barriers to routine health care	592	3.49	0.04	9	3.56	0.24	-0.07
76	cycle of violence (identify family/community dynamics, intervene)	593	3.49	0.04	9	3.89	0.20	-0.40
64	client learning assessment tools/learning styles	593	3.49	0.04	9	3.56	0.38	-0.06

Newly Licensed RN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed RN Average Importance								
Survey Position #	Knowledge Statements	Newly Licensed RNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
56	hemodialysis techniques, methods and equipment	593	3.50	0.04	9	2.78	0.32	0.72
55	normal newborn transition/growth	592	3.51	0.04	9	3.44	0.29	0.07
32	continuing education requirements for professional development needs	593	3.53	0.04	9	3.67	0.29	-0.13
46	disaster response plan/role	591	3.55	0.04	9	3.44	0.18	0.11
115	assistive devices and equipment (availability and use)	592	3.59	0.04	9	3.67	0.17	-0.07
31	ethical dilemmas for area of practice and actions to be taken (personal/societal)	591	3.60	0.04	9	3.89	0.26	-0.29
96	non-pharmacological comfort measures (e.g., relaxation techniques)	592	3.60	0.04	9	3.78	0.22	-0.17
42	security plan/role in response to security alert	593	3.61	0.04	9	3.67	0.24	-0.06
39	signs and symptoms of occupational/environmental exposures (e.g., lead, asbestos)	593	3.62	0.04	9	3.89	0.31	-0.27
93	interventions to promote sleep/rest	590	3.62	0.04	9	3.33	0.29	0.29
67	cultural diversity and implications for care (e.g., religion, ethnicity, world view)	592	3.63	0.04	9	3.78	0.22	-0.15
89	irrigation procedures (e.g., eye, ear, bladder)	593	3.63	0.04	9	3.33	0.17	0.29
15	data collection methods (e.g., chart review, incident reports)	593	3.63	0.04	9	3.33	0.33	0.30
80	behavioral management techniques (e.g., positive reinforcement, setting limits)	592	3.64	0.04	9	3.56	0.34	0.09
81	signs and symptoms of caregiver burnout	591	3.65	0.04	9	3.56	0.29	0.10
41	biohazardous materials, handling, disposal, and resources available (e.g., OSHA, Material Safety Data Sheet {MSDS})	593	3.65	0.04	9	3.89	0.20	-0.24
57	adult aging process	593	3.67	0.04	9	3.67	0.33	0.00
10	trade names for medications	590	3.67	0.04	9	3.33	0.37	0.34
103	activities of daily living (ADL) and instrumental activities of daily living (IADL)	591	3.67	0.04	9	3.78	0.32	-0.11
62	health maintenance recommendations	593	3.68	0.04	9	3.44	0.34	0.24
70	counseling and therapeutic techniques	592	3.68	0.04	9	3.56	0.29	0.13
86	leadership and management skills	592	3.68	0.04	9	3.67	0.37	0.02
18	team member roles and responsibilities	591	3.69	0.03	9	3.67	0.17	0.02

Survey Position #	Knowledge Statements	Newly Licensed RNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
43	ergonomic principles (applied to self and client)	591	3.69	0.04	9	3.89	0.11	-0.20
45	intended purpose and function of equipment and trouble-shooting procedures	590	3.69	0.04	9	4.00	0.17	-0.31
60	normal growth and development	592	3.70	0.04	9	3.78	0.32	-0.08
61	high risk behaviors (e.g., smoking)	593	3.70	0.04	9	3.67	0.33	0.04
22	advance directive process (e.g., obtain, update, present on chart)	593	3.70	0.04	9	4.11	0.31	-0.41
104	trade names for medications	592	3.71	0.04	9	3.44	0.41	0.26
79	addictive behaviors (signs, symptoms and interventions)	592	3.71	0.04	9	3.44	0.24	0.26
74	grief processes (identify and support)	592	3.71	0.03	9	3.89	0.20	-0.18
82	intervention techniques for clients with altered perceptions	592	3.71	0.03	9	3.78	0.22	-0.06
58	methods to evaluate client ability for self care	592	3.71	0.04	9	3.33	0.29	0.38
107	epidural anesthesia principles and care	593	3.72	0.04	9	3.11	0.26	0.60
92	orthopedic devices and their use (e.g., traction, splint, braces)	592	3.72	0.04	9	3.33	0.24	0.39
26	educational tools/resources available for client	591	3.72	0.03	9	4.00	0.24	-0.28
140	ostomy care procedures and supplies	603	3.73	0.04	9	3.33	0.37	0.39
54	perinatal care and complications (antepartum, intrapartum, postpartum)	589	3.75	0.05	9	3.89	0.26	-0.14
13	additional advocacy resources (e.g., social worker, chain of command, translator)	592	3.77	0.04	9	3.78	0.22	-0.01
100	urinary and bowel diversion procedures	592	3.78	0.04	9	3.33	0.24	0.45
71	therapeutic environment (how to establish/maintain)	592	3.78	0.04	9	3.67	0.29	0.12
47	types/application/monitoring of restraints	592	3.79	0.04	9	3.78	0.22	0.01
11	treatment options to advocate for client	591	3.79	0.03	9	3.56	0.34	0.23
137	safe and effective use of body temperature control devices (e.g., cooling blankets)	604	3.80	0.04	9	3.56	0.41	0.24
3	how to provide/evaluate client/staff education	591	3.81	0.04	9	3.78	0.28	0.03
99	institutional policies and regulations regarding client care	593	3.83	0.04	9	3.67	0.24	0.16
28	staff resources (e.g., chain of command, charge nurse)	592	3.84	0.03	9	4.00	0.29	-0.16

Newly Licensed RN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed RN Average Importance								
Survey Position #	Knowledge Statements	Newly Licensed RNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
16	acceptable methods of documentation (e.g., "do not use" abbreviations)	591	3.85	0.04	9	4.11	0.26	-0.26
124	risk reduction concepts and techniques	601	3.87	0.04	9	3.89	0.31	-0.02
143	pulmonary hygiene techniques, methods, and equipment	601	3.88	0.04	9	3.67	0.29	0.21
118	specific medication names	590	3.88	0.04	9	4.00	0.24	-0.12
73	stages of death and dying	592	3.89	0.03	9	3.89	0.20	0.00
146	transcription protocol/processes (how to transcribe orders)	601	3.89	0.04	9	3.89	0.26	0.00
148	cardiac pacing methods, techniques, and equipment	599	3.89	0.04	9	3.00	0.37	0.89
116	generic drug names	590	3.90	0.04	9	4.00	0.33	-0.10
68	stress management and coping strategies	593	3.91	0.04	9	3.89	0.26	0.02
131	how to perform diagnostic testing (e.g., electrocardiogram, O2 saturation, urine specific gravity)	601	3.94	0.04	9	3.78	0.28	0.16
132	fetal heart rate monitoring and recognition of fetal well-being/ distress	602	3.95	0.05	9	3.56	0.41	0.39
37	unsafe practice reporting process	593	3.96	0.03	9	4.00	0.17	-0.04
97	signs and symptoms of alterations in nutritional status	592	3.96	0.03	9	3.89	0.20	0.07
120	moderate sedation (complications, scores, interventions)	603	3.96	0.04	9	3.44	0.29	0.52
40	risk assessment tools (e.g., fall risk, Braden scale, home safety)	591	3.96	0.04	9	4.00	0.17	-0.04
152	tracheostomy care and supplies	602	3.97	0.04	9	3.56	0.41	0.41
7	rules of delegation (who can delegate to whom)	593	3.97	0.04	9	4.00	0.24	-0.03
149	principles to maintain arterial lines	600	3.97	0.04	8	3.13	0.40	0.85
77	safety precautions for violent behavior	592	3.98	0.04	9	4.00	0.17	-0.02
119	medication reconciliation processes	602	3.98	0.04	9	4.00	0.17	-0.02
102	diet and nutritional needs relative to disease process	593	3.99	0.03	9	4.11	0.20	-0.12
8	tube feeding administration, maintenance, and complications	592	3.99	0.04	9	3.67	0.24	0.32
52	components of comprehensive health history data	593	4.00	0.03	9	4.33	0.17	-0.33
9	client rights and responsibilities	591	4.01	0.04	9	4.44	0.18	-0.44
25	required reporting elements and process (e.g., abuse/neglect, communicable disease, gun shot wound, dog bite)	592	4.02	0.04	9	4.22	0.22	-0.20
122	effect of co-morbidities on medical condition/ disease process	602	4.02	0.03	9	4.56	0.18	-0.53

Survey Position #	Knowledge Statements	Newly Licensed RNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
139	nursing role during invasive procedures (e.g., central line placement)	603	4.04	0.04	9	3.78	0.32	0.26
129	intra-operative environment (e.g, sterile technique, roles and responsibilities, equipment requirements)	603	4.06	0.04	9	3.89	0.35	0.17
117	drug classifications	592	4.07	0.04	9	4.11	0.26	-0.04
94	application and maintenance of devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)	592	4.07	0.04	9	3.78	0.22	0.29
136	drainage devices and related equipment (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)	604	4.08	0.03	9	3.78	0.40	0.30
6	hand-off/reporting process (e.g., transfer, shift report)	593	4.09	0.03	9	3.89	0.31	0.20
151	wounds and wound care (e.g., products, procedures, and treatment)	602	4.09	0.03	9	3.67	0.37	0.42
126	tests/treatment/procedures appropriate for client needs	604	4.10	0.03	9	4.22	0.22	-0.12
98	inflammatory process (identification and treatment)	593	4.11	0.03	9	3.89	0.20	0.22
29	consent process (e.g., informed consent, implied consent, emancipated minor)	591	4.11	0.03	9	4.33	0.29	-0.22
109	parenteral nutrition administration methods and maintenance	591	4.12	0.04	9	3.89	0.31	0.23
24	Nursing Code of Ethics	592	4.12	0.04	9	4.33	0.17	-0.21
138	ventilator management (e.g., suction, oxygen)	604	4.14	0.04	9	3.44	0.34	0.70
72	signs/symptoms/management of toxicity, dependency, and withdrawal	593	4.15	0.03	9	3.78	0.32	0.37
123	indications/techniques for glucose monitoring and quality control	602	4.16	0.03	9	4.44	0.18	-0.29
69	signs/symptoms/treatment of abuse/neglect	593	4.17	0.03	9	4.33	0.17	-0.17
133	specimen collection techniques (e.g., blood, wound cultures, stool, urine specimens) and equipment/ supplies used	603	4.17	0.03	9	3.67	0.37	0.50
34	nursing/medical terminology	593	4.18	0.03	9	4.22	0.15	-0.05
128	peri-operative care and risk reduction strategies (e.g., embolism prophylaxis, site verification, time out process, sponge counts)	604	4.18	0.04	9	4.00	0.29	0.18
144	telemetry monitoring and interpretation of cardiac rhythms	603	4.18	0.04	9	3.56	0.18	0.63

The table title spanning the top: **Newly Licensed RN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed RN Average Importance**

	Newly Licensed RN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed RN Average Importance							
Survey Position #	Knowledge Statements	Newly Licensed RNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
147	post operative care (e.g., client response to surgery)	602	4.19	0.03	9	4.22	0.22	-0.03
145	acute and chronic disease processes and appropriate care	601	4.20	0.03	9	4.00	0.24	0.20
84	components of intake and output	592	4.21	0.03	9	4.33	0.17	-0.12
95	pain scales (identify and apply)	593	4.23	0.03	9	4.00	0.24	0.23
121	indications and contraindications of treatments/procedures	603	4.25	0.03	9	4.44	0.18	-0.20
2	communication skills/language (e.g., professional, therapeutic, alternative forms for those with impaired communication)	593	4.26	0.03	9	4.33	0.24	-0.07
20	order verification and clarification processes	590	4.27	0.04	9	4.33	0.24	-0.07
35	time management techniques	594	4.27	0.03	9	4.00	0.33	0.27
44	specific client identification procedures	588	4.28	0.04	9	4.33	0.24	-0.06
114	pharmacological measures to manage pain	591	4.28	0.03	9	4.67	0.17	-0.39
106	proper handling and disposal of controlled substances (e.g, counting narcotics, wasting narcotics)	593	4.28	0.03	9	4.56	0.24	-0.28
36	standards of practice	593	4.29	0.03	9	4.56	0.18	-0.27
49	signs and symptoms of communicable diseases	593	4.33	0.03	9	4.22	0.22	0.11
12	client confidentiality/privacy	590	4.33	0.03	9	4.56	0.18	-0.22
27	scope of practice (for self and others)	592	4.34	0.03	9	4.67	0.17	-0.32
91	insertion, maintenance, and removal process for tubes and catheters	593	4.35	0.03	9	4.00	0.17	0.35
50	locating and maintaining emergency response equipment	591	4.35	0.03	9	4.11	0.31	0.24
4	signs and symptoms of altered elimination(e.g., bowel, urinary)	593	4.35	0.03	9	4.22	0.15	0.13
111	techniques used to access and maintain central venous access devices (tunneled, implanted, central lines)	592	4.37	0.03	9	4.00	0.37	0.37
85	application of math (drip factors, I/O)	590	4.40	0.04	9	4.56	0.18	-0.15
130	process to report critical diagnostic test results	601	4.41	0.03	9	4.56	0.18	-0.15
101	measures to maintain skin integrity	592	4.41	0.03	9	4.22	0.22	0.19
53	anatomy and physiology (normal body systems, identify alterations)	592	4.41	0.03	9	4.67	0.17	-0.25
134	hemodynamics, tissue perfusion and homeostasis principles (cerebral, cardiac, peripheral)	603	4.44	0.03	9	4.00	0.33	0.44

	Newly Licensed RN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed RN Average Importance							
Survey Position #	Knowledge Statements	Newly Licensed RNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
150	signs and symptoms of overhydration and dehydration	601	4.44	0.03	9	4.22	0.15	0.22
127	when and how to perform focused assessments/reassessments (e.g., pain systems, disease process)	601	4.45	0.03	9	4.56	0.18	-0.11
113	medication administration procedures (preparation, titration, storage)	590	4.48	0.03	9	4.78	0.15	-0.29
38	infection control principles	593	4.49	0.03	9	4.33	0.17	0.16
105	peripheral intravenous line, insertion, management, supplies and complications	593	4.51	0.03	9	4.56	0.24	-0.04
112	medications (e.g., therapeutic effects, side effects, common cross allergies, interactions)	591	4.56	0.03	9	4.67	0.24	-0.11
51	physical assessment techniques	592	4.57	0.03	9	4.67	0.17	-0.10
125	vital sign measurement, interventions related to changes	602	4.58	0.03	9	4.67	0.17	-0.09
48	signs/symptoms/interventions of an allergic or sensitivity reaction	592	4.60	0.03	9	4.78	0.15	-0.17
110	blood administration procedures (e.g., verify compatibility, reactions, treatments)	589	4.63	0.03	9	4.44	0.24	0.19
108	rights of medication administration (identify and apply)	593	4.63	0.03	9	4.89	0.11	-0.26
5	client and care prioritization (who to see first, what to do first)	590	4.67	0.03	9	4.67	0.24	0.01
135	signs/symptoms/treatments of impaired ventilation/oxygenation	601	4.71	0.02	9	4.67	0.17	0.04
153	recognizing/activating/providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	600	4.81	0.02	8	4.75	0.16	0.06
14	critical signs and symptoms (identify and intervene)	590	4.83	0.02	8	4.88	0.13	-0.05

APPENDIX F: RN EDUCATORS AND SME KNOWLEDGE STATEMENT RATINGS RANK ORDERED BY RN EDUCATOR AVERAGE IMPORTANCE

Preface: How important is this knowledge by a newly licensed RN for safe and effective professional practice regardless of specific practice setting?

RN Educators and SME Knowledge Statement Ratings Rank Ordered by RN Educator Average Importance							
Survey Position #	Knowledge Statements	RN Educators			SME Ratings		Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
66	available genetic resources for client referral	932	2.77	0.03	9	2.78	0.32	-0.01
23	supply and resource management (e.g. obtain and reconcile supplies)	927	2.77	0.03	9	2.78	0.28	-0.01
87	post-mortem care (institutional policy and procedures)	931	3.00	0.03	9	3.33	0.29	-0.33
141	peritoneal dialysis techniques, methods, and equipment	937	3.03	0.03	9	2.67	0.29	0.36
56	hemodialysis techniques, methods and equipment	929	3.05	0.03	9	2.78	0.32	0.27
88	basic information on organ donation and tissue care	931	3.08	0.03	9	3.22	0.15	-0.14
59	targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)	933	3.15	0.03	9	3.33	0.29	-0.18
21	phototherapy indications, techniques, equipment, and safety precautions	929	3.17	0.04	9	2.89	0.39	0.28
148	cardiac pacing methods, techniques, and equipment	932	3.18	0.04	9	3.00	0.37	0.18
90	alternative/complementary therapies (e.g., music/relaxation techniques, herbal therapies)	932	3.21	0.03	9	2.89	0.26	0.32
149	principles to maintain arterial lines	937	3.24	0.04	8	3.13	0.40	0.12
142	immunization schedule	940	3.29	0.03	9	3.44	0.24	-0.16
75	group dynamics	934	3.40	0.03	9	3.44	0.24	-0.04
39	signs and symptoms of occupational/environmental exposures (e.g., lead, asbestos)	932	3.41	0.03	9	3.89	0.31	-0.48
17	quality indicators (determined by institution regarding care)	933	3.44	0.03	9	3.44	0.29	0.00
65	population and community health risk factors	932	3.45	0.03	9	3.22	0.40	0.23
19	referral process to interdisciplinary team members	930	3.45	0.03	9	3.67	0.24	-0.21
107	epidural anesthesia principles and care	931	3.48	0.04	9	3.11	0.26	0.37
78	diversity of family structures and functions	931	3.50	0.03	9	3.33	0.29	0.17
1	available community resources for discharge planning	934	3.50	0.03	9	3.89	0.20	-0.39
89	irrigation procedures (e.g., eye, ear, bladder)	929	3.51	0.03	9	3.33	0.17	0.18

Survey Position #	Knowledge Statements	RN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
144	telemetry monitoring and interpretation of cardiac rhythms	939	3.52	0.03	9	3.56	0.18	-0.04
131	how to perform diagnostic testing (e.g., electrocardiogram, O2 saturation, urine specific gravity)	939	3.53	0.03	9	3.78	0.28	-0.25
129	intra-operative environment (e.g, sterile technique, roles and responsibilities, equipment requirements)	933	3.53	0.04	9	3.89	0.35	-0.36
46	disaster response plan/role	931	3.54	0.03	9	3.44	0.18	0.09
32	continuing education requirements for professional development needs	929	3.54	0.03	9	3.67	0.29	-0.13
45	intended purpose and function of equipment and trouble-shooting procedures	930	3.56	0.03	9	4.00	0.17	-0.44
83	body image disturbance and appropriate interventions	930	3.57	0.03	9	3.56	0.24	0.01
140	ostomy care procedures and supplies	937	3.59	0.03	9	3.33	0.37	0.25
115	assistive devices and equipment (availability and use)	929	3.61	0.03	9	3.67	0.17	-0.06
104	trade names for medications	932	3.61	0.03	9	3.44	0.41	0.17
63	common barriers to routine health care	936	3.62	0.03	9	3.56	0.24	0.07
138	ventilator management (e.g., suction, oxygen)	939	3.63	0.04	9	3.44	0.34	0.18
64	client learning assessment tools/ learning styles	935	3.63	0.03	9	3.56	0.38	0.08
10	trade names for medications	928	3.63	0.03	9	3.33	0.37	0.30
81	signs and symptoms of caregiver burnout	931	3.64	0.03	9	3.56	0.29	0.08
92	orthopedic devices and their use (e.g., traction, splint, braces)	933	3.65	0.03	9	3.33	0.24	0.31
132	fetal heart rate monitoring and recognition of fetal well-being/ distress	937	3.65	0.04	9	3.56	0.41	0.09
80	behavioral management techniques (e.g., positive reinforcement, setting limits)	932	3.66	0.03	9	3.56	0.34	0.10
137	safe and effective use of body temperature control devices (e.g., cooling blankets)	941	3.66	0.03	9	3.56	0.41	0.11
100	urinary and bowel diversion procedures	932	3.68	0.03	9	3.33	0.24	0.35
86	leadership and management skills	928	3.69	0.03	9	3.67	0.37	0.02
139	nursing role during invasive procedures (e.g., central line placement)	936	3.70	0.03	9	3.78	0.32	-0.08
55	normal newborn transition/growth	929	3.70	0.03	9	3.44	0.29	0.26

RN Educators and SME Knowledge Statement Ratings Rank Ordered by RN Educator Average Importance								
Survey Position #	Knowledge Statements	RN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
70	counseling and therapeutic techniques	935	3.71	0.03	9	3.56	0.29	0.15
30	conflict management principles	930	3.71	0.03	9	3.89	0.35	-0.18
15	data collection methods (e.g., chart review, incident reports)	932	3.72	0.03	9	3.33	0.33	0.38
79	addictive behaviors (signs, symptoms and interventions)	932	3.73	0.03	9	3.44	0.24	0.28
76	cycle of violence (identify family/ community dynamics, intervene)	933	3.73	0.03	9	3.89	0.20	-0.16
42	security plan/role in response to security alert	933	3.74	0.03	9	3.67	0.24	0.07
120	moderate sedation (complications, scores, interventions)	941	3.75	0.03	9	3.44	0.29	0.30
26	educational tools/resources available for client	933	3.75	0.03	9	4.00	0.24	-0.25
99	institutional policies and regulations regarding client care	930	3.76	0.03	9	3.67	0.24	0.10
11	treatment options to advocate for client	934	3.77	0.03	9	3.56	0.34	0.22
41	biohazardous materials, handling, disposal, and resources available (e.g., OSHA, Material Safety Data Sheet {MSDS})	933	3.79	0.03	9	3.89	0.20	-0.09
54	perinatal care and complications (antepartum, intrapartum, postpartum)	927	3.81	0.03	9	3.89	0.26	-0.08
13	additional advocacy resources (e.g., social worker, chain of command, translator)	932	3.81	0.03	9	3.78	0.22	0.04
18	team member roles and responsibilities	935	3.82	0.03	9	3.67	0.17	0.15
22	advance directive process (e.g., obtain, update, present on chart)	931	3.83	0.03	9	4.11	0.31	-0.28
146	transcription protocol/processes (how to transcribe orders)	939	3.84	0.04	9	3.89	0.26	-0.05
82	intervention techniques for clients with altered perceptions	932	3.84	0.03	9	3.78	0.22	0.07
3	how to provide/evaluate client/staff education	930	3.86	0.03	9	3.78	0.28	0.08
143	pulmonary hygiene techniques, methods, and equipment	940	3.87	0.03	9	3.67	0.29	0.20
93	interventions to promote sleep/rest	928	3.87	0.03	9	3.33	0.29	0.54
118	specific medication names	926	3.87	0.03	9	4.00	0.24	-0.13
152	tracheostomy care and supplies	937	3.87	0.03	9	3.56	0.41	0.32
62	health maintenance recommendations	933	3.88	0.03	9	3.44	0.34	0.44
74	grief processes (identify and support)	933	3.89	0.03	9	3.89	0.20	0.00

Survey Position #	Knowledge Statements	RN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
33	evidence-based practice resources (e.g., journals, research, best practices)	930	3.90	0.03	9	3.67	0.33	0.23
31	ethical dilemmas for area of practice and actions to be taken (personal/societal)	933	3.92	0.03	9	3.89	0.26	0.03
43	ergonomic principles (applied to self and client)	933	3.93	0.03	9	3.89	0.11	0.04
61	high risk behaviors (e.g., smoking)	934	3.94	0.03	9	3.67	0.33	0.27
72	signs/symptoms/management of toxicity, dependency, and withdrawal	935	3.94	0.03	9	3.78	0.32	0.16
119	medication reconciliation processes	939	3.94	0.03	9	4.00	0.17	-0.06
57	adult aging process	929	3.94	0.03	9	3.67	0.33	0.28
73	stages of death and dying	935	3.95	0.03	9	3.89	0.20	0.06
103	activities of daily living (ADL) and instrumental activities of daily living (IADL)	926	3.95	0.03	9	3.78	0.32	0.17
28	staff resources (e.g., chain of command, charge nurse)	931	3.95	0.03	9	4.00	0.29	-0.05
116	generic drug names	929	3.97	0.03	9	4.00	0.33	-0.03
60	normal growth and development	935	4.00	0.03	9	3.78	0.32	0.22
71	therapeutic environment (how to establish/maintain)	936	4.00	0.03	9	3.67	0.29	0.33
122	effect of co-morbidities on medical condition/ disease process	940	4.01	0.03	9	4.56	0.18	-0.54
128	peri-operative care and risk reduction strategies (e.g., embolism prophylaxis, site verification, time out process, sponge counts)	937	4.02	0.04	9	4.00	0.29	0.02
124	risk reduction concepts and techniques	937	4.02	0.03	9	3.89	0.31	0.13
58	methods to evaluate client ability for self care	931	4.02	0.03	9	3.33	0.29	0.69
136	drainage devices and related equipment (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)	940	4.03	0.03	9	3.78	0.40	0.25
96	non-pharmacological comfort measures (e.g., relaxation techniques)	933	4.04	0.03	9	3.78	0.22	0.26
40	risk assessment tools (e.g., fall risk, Braden scale, home safety)	932	4.04	0.03	9	4.00	0.17	0.04
8	tube feeding administration, maintenance, and complications	934	4.05	0.03	9	3.67	0.24	0.38
67	cultural diversity and implications for care (e.g., religion, ethnicity, world view)	935	4.08	0.03	9	3.78	0.22	0.30

RN Educators and SME Knowledge Statement Ratings Rank Ordered by RN Educator Average Importance

Survey Position #	Knowledge Statements	RN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
94	application and maintenance of devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)	932	4.08	0.03	9	3.78	0.22	0.30
133	specimen collection techniques (e.g., blood, wound cultures, stool, urine specimens) and equipment/ supplies used	939	4.09	0.03	9	3.67	0.37	0.42
25	required reporting elements and process (e.g., abuse/neglect, communicable disease, gun shot wound, dog bite)	932	4.09	0.03	9	4.22	0.22	-0.13
35	time management techniques	932	4.10	0.03	9	4.00	0.33	0.10
102	diet and nutritional needs relative to disease process	930	4.10	0.02	9	4.11	0.20	-0.01
68	stress management and coping strategies	934	4.11	0.03	9	3.89	0.26	0.22
111	techniques used to access and maintain central venous access devices (tunneled, implanted, central lines)	933	4.12	0.03	9	4.00	0.37	0.12
47	types/application/monitoring of restraints	929	4.13	0.03	9	3.78	0.22	0.35
109	parenteral nutrition administration methods and maintenance	932	4.15	0.03	9	3.89	0.31	0.26
37	unsafe practice reporting process	930	4.15	0.03	9	4.00	0.17	0.15
126	tests/treatment/procedures appropriate for client needs	935	4.17	0.02	9	4.22	0.22	-0.05
97	signs and symptoms of alterations in nutritional status	934	4.18	0.02	9	3.89	0.20	0.30
77	safety precautions for violent behavior	932	4.20	0.03	9	4.00	0.17	0.20
151	wounds and wound care (e.g., products, procedures, and treatment)	939	4.21	0.02	9	3.67	0.37	0.55
52	components of comprehensive health history data	931	4.23	0.02	9	4.33	0.17	-0.10
121	indications and contraindications of treatments/procedures	940	4.24	0.02	9	4.44	0.18	-0.21
49	signs and symptoms of communicable diseases	928	4.24	0.03	9	4.22	0.22	0.02
16	acceptable methods of documentation (e.g., "do not use" abbreviations)	932	4.24	0.03	9	4.11	0.26	0.13
98	inflammatory process (identification and treatment)	932	4.25	0.02	9	3.89	0.20	0.37
6	hand-off/reporting process (e.g., transfer, shift report)	930	4.25	0.02	9	3.89	0.31	0.37
91	insertion, maintenance, and removal process for tubes and catheters	931	4.26	0.03	9	4.00	0.17	0.26

Survey Position #	Knowledge Statements	RN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
29	consent process (e.g., informed consent, implied consent, emancipated minor)	932	4.27	0.02	9	4.33	0.29	-0.06
50	locating and maintaining emergency response equipment	931	4.27	0.03	9	4.11	0.31	0.16
7	rules of delegation (who can delegate to whom)	935	4.28	0.03	9	4.00	0.24	0.28
147	post operative care (e.g., client response to surgery)	938	4.29	0.03	9	4.22	0.22	0.06
134	hemodynamics, tissue perfusion and homeostasis principles (cerebral, cardiac, peripheral)	940	4.29	0.03	9	4.00	0.33	0.29
145	acute and chronic disease processes and appropriate care	937	4.30	0.02	9	4.00	0.24	0.30
123	indications/techniques for glucose monitoring and quality control	938	4.33	0.02	9	4.44	0.18	-0.12
117	drug classifications	929	4.33	0.03	9	4.11	0.26	0.22
9	client rights and responsibilities	928	4.37	0.02	9	4.44	0.18	-0.07
69	signs/symptoms/treatment of abuse/neglect	934	4.38	0.02	9	4.33	0.17	0.04
34	nursing/medical terminology	933	4.38	0.02	9	4.22	0.15	0.15
106	proper handling and disposal of controlled substances (e.g, counting narcotics, wasting narcotics)	932	4.38	0.03	9	4.56	0.24	-0.17
105	peripheral intravenous line, insertion, management, supplies and complications	930	4.38	0.03	9	4.56	0.24	-0.17
130	process to report critical diagnostic test results	938	4.40	0.03	9	4.56	0.18	-0.15
20	order verification and clarification processes	929	4.42	0.03	9	4.33	0.24	0.08
53	anatomy and physiology (normal body systems, identify alterations)	931	4.45	0.02	9	4.67	0.17	-0.21
110	blood administration procedures (e.g., verify compatibility, reactions, treatments)	933	4.47	0.03	9	4.44	0.24	0.02
4	signs and symptoms of altered elimination (e.g., bowel, urinary)	933	4.47	0.02	9	4.22	0.15	0.25
101	measures to maintain skin integrity	932	4.48	0.02	9	4.22	0.22	0.26
84	components of intake and output	931	4.50	0.02	9	4.33	0.17	0.17
36	standards of practice	934	4.51	0.02	9	4.56	0.18	-0.05
95	pain scales (identify and apply)	933	4.53	0.02	9	4.00	0.24	0.53
114	pharmacological measures to manage pain	929	4.53	0.02	9	4.67	0.17	-0.13
24	Nursing Code of Ethics	931	4.54	0.02	9	4.33	0.17	0.21
150	signs and symptoms of overhydration and dehydration	937	4.55	0.02	9	4.22	0.15	0.33

RN Educators and SME Knowledge Statement Ratings Rank Ordered by RN Educator Average Importance

Survey Position #	Knowledge Statements	RN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
44	specific client identification procedures	931	4.59	0.02	9	4.33	0.24	0.25
127	when and how to perform focused assessments/reassessments (e.g., pain systems, disease process)	936	4.63	0.02	9	4.56	0.18	0.08
27	scope of practice (for self and others)	932	4.65	0.02	9	4.67	0.17	-0.02
48	signs/symptoms/interventions of an allergic or sensitivity reaction	931	4.65	0.02	9	4.78	0.15	-0.12
85	application of math (drip factors, I/O)	929	4.67	0.02	9	4.56	0.18	0.11
2	communication skills/language (e.g., professional, therapeutic, alternative forms for those with impaired communication)	931	4.67	0.02	9	4.33	0.24	0.34
38	infection control principles	927	4.68	0.02	9	4.33	0.17	0.34
51	physical assessment techniques	931	4.69	0.02	9	4.67	0.17	0.03
113	medication administration procedures (preparation, titration, storage)	933	4.71	0.02	9	4.78	0.15	-0.06
135	signs/symptoms/treatments of impaired ventilation/oxygenation	932	4.72	0.02	9	4.67	0.17	0.05
12	client confidentiality/privacy	935	4.73	0.02	9	4.56	0.18	0.17
153	recognizing/activating/providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	939	4.76	0.02	8	4.75	0.16	0.01
125	vital sign measurement, interventions related to changes	940	4.76	0.02	9	4.67	0.17	0.10
112	medications (e.g., therapeutic effects, side effects, common cross allergies, interactions)	933	4.78	0.02	9	4.67	0.24	0.11
5	client and care prioritization (who to see first, what to do first)	934	4.79	0.02	9	4.67	0.24	0.13
14	critical signs and symptoms (identify and intervene)	933	4.85	0.01	8	4.88	0.13	-0.02
108	rights of medication administration (identify and apply)	932	4.86	0.01	9	4.89	0.11	-0.03

RN Educators and SME Knowledge Statement Ratings Rank Ordered by RN Educator Average Importance

APPENDIX G: RN SUPERVISORS AND SME KNOWLEDGE STATEMENT RATINGS RANK ORDERED BY RN SUPERVISOR AVERAGE IMPORTANCE

Preface: How important is this knowledge by a newly licensed RN for safe and effective professional practice regardless of specific practice setting?

Survey Position #	Knowledge Statements	RN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
66	available genetic resources for client referral	255	2.67	0.06	9	2.78	0.32	-0.11
21	phototherapy indications, techniques, equipment, and safety precautions	259	3.00	0.07	9	2.89	0.39	0.11
23	supply and resource management (e.g. obtain and reconcile supplies)	259	3.01	0.07	9	2.78	0.28	0.23
90	alternative/complementary therapies (e.g., music/relaxation techniques, herbal therapies)	258	3.05	0.06	9	2.89	0.26	0.17
59	targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)	259	3.08	0.06	9	3.33	0.29	-0.26
1	available community resources for discharge planning	257	3.11	0.06	9	3.89	0.20	-0.78
141	peritoneal dialysis techniques, methods, and equipment	269	3.17	0.06	9	2.67	0.29	0.50
142	immunization schedule	269	3.20	0.06	9	3.44	0.24	-0.25
88	basic information on organ donation and tissue care	257	3.21	0.06	9	3.22	0.15	-0.02
56	hemodialysis techniques, methods and equipment	259	3.22	0.07	9	2.78	0.32	0.45
87	post-mortem care (institutional policy and procedures)	257	3.26	0.06	9	3.33	0.29	-0.08
83	body image disturbance and appropriate interventions	258	3.28	0.06	9	3.56	0.24	-0.28
65	population and community health risk factors	256	3.29	0.05	9	3.22	0.40	0.07
132	fetal heart rate monitoring and recognition of fetal well-being/distress	269	3.31	0.08	9	3.56	0.41	-0.24
148	cardiac pacing methods, techniques, and equipment	269	3.32	0.07	9	3.00	0.37	0.32
107	epidural anesthesia principles and care	258	3.33	0.07	9	3.11	0.26	0.21
149	principles to maintain arterial lines	268	3.33	0.07	8	3.13	0.40	0.21
78	diversity of family structures and functions	257	3.37	0.06	9	3.33	0.29	0.03
70	counseling and therapeutic techniques	256	3.41	0.06	9	3.56	0.29	-0.15
75	group dynamics	257	3.42	0.06	9	3.44	0.24	-0.02
63	common barriers to routine health care	259	3.42	0.05	9	3.56	0.24	-0.13

RN Supervisors and SME Knowledge Statement Ratings Rank Ordered by RN Supervisor Average Importance								
Survey Position #	Knowledge Statements	RN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
55	normal newborn transition/growth	260	3.43	0.07	9	3.44	0.29	-0.01
76	cycle of violence (identify family/community dynamics, intervene)	257	3.44	0.06	9	3.89	0.20	-0.45
144	telemetry monitoring and interpretation of cardiac rhythms	267	3.45	0.07	9	3.56	0.18	-0.11
39	signs and symptoms of occupational/environmental exposures (e.g., lead, asbestos)	259	3.46	0.06	9	3.89	0.31	-0.43
32	continuing education requirements for professional development needs	260	3.50	0.06	9	3.67	0.29	-0.17
19	referral process to interdisciplinary team members	258	3.50	0.05	9	3.67	0.24	-0.16
54	perinatal care and complications (antepartum, intrapartum, postpartum)	260	3.52	0.07	9	3.89	0.26	-0.37
17	quality indicators (determined by institution regarding care)	260	3.53	0.06	9	3.44	0.29	0.09
71	therapeutic environment (how to establish/maintain)	257	3.55	0.05	9	3.67	0.29	-0.12
62	health maintenance recommendations	259	3.57	0.05	9	3.44	0.34	0.13
79	addictive behaviors (signs, symptoms and interventions)	257	3.58	0.05	9	3.44	0.24	0.13
82	intervention techniques for clients with altered perceptions	255	3.59	0.05	9	3.78	0.22	-0.19
64	client learning assessment tools/learning styles	256	3.59	0.05	9	3.56	0.38	0.04
26	educational tools/resources available for client	259	3.59	0.05	9	4.00	0.24	-0.41
42	security plan/role in response to security alert	260	3.64	0.06	9	3.67	0.24	-0.03
131	how to perform diagnostic testing (e.g., electrocardiogram, O2 saturation, urine specific gravity)	270	3.64	0.06	9	3.78	0.28	-0.14
46	disaster response plan/role	259	3.64	0.06	9	3.44	0.18	0.20
93	interventions to promote sleep/rest	254	3.65	0.05	9	3.33	0.29	0.31
115	assistive devices and equipment (availability and use)	257	3.65	0.05	9	3.67	0.17	-0.02
137	safe and effective use of body temperature control devices (e.g., cooling blankets)	270	3.66	0.06	9	3.56	0.41	0.10
33	evidence-based practice resources (e.g., journals, research, best practices)	259	3.66	0.06	9	3.67	0.33	-0.01
13	additional advocacy resources (e.g., social worker, chain of command, translator)	259	3.66	0.06	9	3.78	0.22	-0.12

Survey Position #	Knowledge Statements	RN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
80	behavioral management techniques (e.g., positive reinforcement, setting limits)	257	3.66	0.05	9	3.56	0.34	0.11
86	leadership and management skills	258	3.66	0.06	9	3.67	0.37	0.00
45	intended purpose and function of equipment and trouble-shooting procedures	259	3.67	0.06	9	4.00	0.17	-0.33
60	normal growth and development	258	3.68	0.05	9	3.78	0.32	-0.10
138	ventilator management (e.g., suction, oxygen)	269	3.68	0.07	9	3.44	0.34	0.24
61	high risk behaviors (e.g., smoking)	259	3.69	0.05	9	3.67	0.33	0.02
81	signs and symptoms of caregiver burnout	254	3.69	0.05	9	3.56	0.29	0.13
129	intra-operative environment (e.g, sterile technique, roles and responsibilities, equipment requirements)	270	3.70	0.07	9	3.89	0.35	-0.19
11	treatment options to advocate for client	259	3.70	0.05	9	3.56	0.34	0.15
15	data collection methods (e.g., chart review, incident reports)	259	3.71	0.06	9	3.33	0.33	0.38
89	irrigation procedures (e.g., eye, ear, bladder)	257	3.72	0.06	9	3.33	0.17	0.39
104	trade names for medications	257	3.73	0.06	9	3.44	0.41	0.28
31	ethical dilemmas for area of practice and actions to be taken (personal/societal)	260	3.73	0.05	9	3.89	0.26	-0.15
72	signs/symptoms/management of toxicity, dependency, and withdrawal	257	3.74	0.06	9	3.78	0.32	-0.04
92	orthopedic devices and their use (e.g., traction, splint, braces)	257	3.77	0.05	9	3.33	0.24	0.44
99	institutional policies and regulations regarding client care	257	3.77	0.06	9	3.67	0.24	0.11
18	team member roles and responsibilities	258	3.78	0.05	9	3.67	0.17	0.11
139	nursing role during invasive procedures (e.g., central line placement)	269	3.78	0.06	9	3.78	0.32	0.00
143	pulmonary hygiene techniques, methods, and equipment	270	3.78	0.06	9	3.67	0.29	0.11
30	conflict management principles	260	3.78	0.05	9	3.89	0.35	-0.10
41	biohazardous materials, handling, disposal, and resources available (e.g., OSHA, Material Safety Data Sheet {MSDS})	257	3.79	0.06	9	3.89	0.20	-0.10
10	trade names for medications	258	3.81	0.06	9	3.33	0.37	0.47
120	moderate sedation (complications, scores, interventions)	269	3.81	0.05	9	3.44	0.29	0.36

RN Supervisors and SME Knowledge Statement Ratings Rank Ordered by RN Supervisor Average Importance

| RN Supervisors and SME Knowledge Statement Ratings Rank Ordered by RN Supervisor Average Importance | | | | | | | | |
| Survey Position # | Knowledge Statements | RN Supervisors | | | SME Ratings | | | Avg. Difference |
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
67	cultural diversity and implications for care (e.g., religion, ethnicity, world view)	256	3.82	0.06	9	3.78	0.22	0.04
140	ostomy care procedures and supplies	270	3.83	0.05	9	3.33	0.37	0.49
96	non-pharmacological comfort measures (e.g., relaxation techniques)	258	3.84	0.05	9	3.78	0.22	0.07
43	ergonomic principles (applied to self and client)	260	3.88	0.06	9	3.89	0.11	0.00
128	peri-operative care and risk reduction strategies (e.g., embolism prophylaxis, site verification, time out process, sponge counts)	269	3.90	0.06	9	4.00	0.29	-0.10
124	risk reduction concepts and techniques	270	3.91	0.05	9	3.89	0.31	0.02
22	advance directive process (e.g., obtain, update, present on chart)	260	3.91	0.06	9	4.11	0.31	-0.20
100	urinary and bowel diversion procedures	256	3.93	0.05	9	3.33	0.24	0.60
28	staff resources (e.g., chain of command, charge nurse)	260	3.94	0.05	9	4.00	0.29	-0.06
74	grief processes (identify and support)	256	3.94	0.05	9	3.89	0.20	0.05
116	generic drug names	258	3.95	0.06	9	4.00	0.33	-0.05
3	how to provide/evaluate client/staff education	256	3.96	0.05	9	3.78	0.28	0.19
152	tracheostomy care and supplies	270	3.97	0.05	9	3.56	0.41	0.42
58	methods to evaluate client ability for self care	259	3.98	0.05	9	3.33	0.29	0.65
77	safety precautions for violent behavior	257	3.98	0.05	9	4.00	0.17	-0.02
118	specific medication names	258	3.98	0.06	9	4.00	0.24	-0.02
57	adult aging process	260	4.03	0.05	9	3.67	0.33	0.37
7	rules of delegation (who can delegate to whom)	259	4.04	0.05	9	4.00	0.24	0.04
103	activities of daily living (ADL) and instrumental activities of daily living (IADL)	257	4.05	0.05	9	3.78	0.32	0.27
68	stress management and coping strategies	257	4.06	0.05	9	3.89	0.26	0.17
147	post operative care (e.g., client response to surgery)	269	4.06	0.06	9	4.22	0.22	-0.16
29	consent process (e.g., informed consent, implied consent, emancipated minor)	260	4.07	0.05	9	4.33	0.29	-0.27
47	types/application/monitoring of restraints	259	4.07	0.06	9	3.78	0.22	0.29
109	parenteral nutrition administration methods and maintenance	257	4.08	0.06	9	3.89	0.31	0.19

RN Supervisors and SME Knowledge Statement Ratings Rank Ordered by RN Supervisor Average Importance								
Survey Position #	Knowledge Statements	RN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
126	tests/treatment/procedures appropriate for client needs	270	4.09	0.05	9	4.22	0.22	-0.14
94	application and maintenance of devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)	258	4.09	0.05	9	3.78	0.22	0.31
122	effect of co-morbidities on medical condition/ disease process	270	4.10	0.05	9	4.56	0.18	-0.45
97	signs and symptoms of alterations in nutritional status	257	4.11	0.05	9	3.89	0.20	0.22
136	drainage devices and related equipment (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)	270	4.11	0.05	9	3.78	0.40	0.34
146	transcription protocol/processes (how to transcribe orders)	269	4.12	0.06	9	3.89	0.26	0.23
102	diet and nutritional needs relative to disease process	257	4.12	0.04	9	4.11	0.20	0.01
133	specimen collection techniques (e.g., blood, wound cultures, stool, urine specimens) and equipment/ supplies used	270	4.13	0.05	9	3.67	0.37	0.47
50	locating and maintaining emergency response equipment	258	4.14	0.06	9	4.11	0.31	0.03
9	client rights and responsibilities	258	4.16	0.05	9	4.44	0.18	-0.29
25	required reporting elements and process (e.g., abuse/neglect, communicable disease, gun shot wound, dog bite)	259	4.17	0.05	9	4.22	0.22	-0.05
134	hemodynamics, tissue perfusion and homeostasis principles (cerebral, cardiac, peripheral)	270	4.17	0.05	9	4.00	0.33	0.17
117	drug classifications	258	4.17	0.05	9	4.11	0.26	0.06
98	inflammatory process (identification and treatment)	257	4.17	0.04	9	3.89	0.20	0.28
40	risk assessment tools (e.g., fall risk, Braden scale, home safety)	258	4.17	0.05	9	4.00	0.17	0.17
35	time management techniques	260	4.18	0.05	9	4.00	0.33	0.18
8	tube feeding administration, maintenance, and complications	258	4.19	0.05	9	3.67	0.24	0.52
16	acceptable methods of documentation (e.g., "do not use" abbreviations)	259	4.20	0.05	9	4.11	0.26	0.09
73	stages of death and dying	258	4.21	0.05	9	3.89	0.20	0.32
37	unsafe practice reporting process	259	4.21	0.05	9	4.00	0.17	0.21
111	techniques used to access and maintain central venous access devices (tunneled, implanted, central lines)	258	4.21	0.06	9	4.00	0.37	0.21

Survey Position #	Knowledge Statements	RN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
110	blood administration procedures (e.g., verify compatibility, reactions, treatments)	258	4.24	0.06	9	4.44	0.24	-0.20
44	specific client identification procedures	260	4.24	0.06	9	4.33	0.24	-0.09
151	wounds and wound care (e.g., products, procedures, and treatment)	270	4.25	0.05	9	3.67	0.37	0.59
145	acute and chronic disease processes and appropriate care	269	4.26	0.04	9	4.00	0.24	0.26
49	signs and symptoms of communicable diseases	260	4.26	0.05	9	4.22	0.22	0.04
121	indications and contraindications of treatments/procedures	270	4.26	0.04	9	4.44	0.18	-0.18
52	components of comprehensive health history data	260	4.27	0.04	9	4.33	0.17	-0.06
119	medication reconciliation processes	269	4.29	0.05	9	4.00	0.17	0.29
69	signs/symptoms/treatment of abuse/neglect	257	4.30	0.05	9	4.33	0.17	-0.03
84	components of intake and output	258	4.30	0.05	9	4.33	0.17	-0.03
91	insertion, maintenance, and removal process for tubes and catheters	256	4.32	0.05	9	4.00	0.17	0.32
85	application of math (drip factors, I/O)	256	4.33	0.05	9	4.56	0.18	-0.23
6	hand-off/reporting process (e.g., transfer, shift report)	257	4.35	0.04	9	3.89	0.31	0.47
105	peripheral intravenous line, insertion, management, supplies and complications	258	4.36	0.05	9	4.56	0.24	-0.20
123	indications/techniques for glucose monitoring and quality control	270	4.37	0.04	9	4.44	0.18	-0.07
20	order verification and clarification processes	260	4.38	0.05	9	4.33	0.24	0.05
2	communication skills/language (e.g., professional, therapeutic, alternative forms for those with impaired communication)	258	4.38	0.05	9	4.33	0.24	0.05
106	proper handling and disposal of controlled substances (e.g, counting narcotics, wasting narcotics)	258	4.40	0.05	9	4.56	0.24	-0.15
34	nursing/medical terminology	260	4.44	0.04	9	4.22	0.15	0.22
130	process to report critical diagnostic test results	269	4.45	0.05	9	4.56	0.18	-0.11
114	pharmacological measures to manage pain	257	4.46	0.04	9	4.67	0.17	-0.21
24	Nursing Code of Ethics	259	4.47	0.05	9	4.33	0.17	0.13
150	signs and symptoms of overhydration and dehydration	270	4.49	0.04	9	4.22	0.15	0.27

Table title (spanning header): **RN Supervisors and SME Knowledge Statement Ratings Rank Ordered by RN Supervisor Average Importance**

		RN Supervisors			SME Ratings			
Survey Position #	Knowledge Statements	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Avg. Difference
12	client confidentiality/privacy	258	4.51	0.04	9	4.56	0.18	-0.05
36	standards of practice	259	4.52	0.04	9	4.56	0.18	-0.04
53	anatomy and physiology (normal body systems, identify alterations)	259	4.53	0.04	9	4.67	0.17	-0.14
27	scope of practice (for self and others)	260	4.53	0.04	9	4.67	0.17	-0.13
4	signs and symptoms of altered elimination (e.g., bowel, urinary)	256	4.54	0.04	9	4.22	0.15	0.32
101	measures to maintain skin integrity	258	4.55	0.04	9	4.22	0.22	0.33
95	pain scales (identify and apply)	257	4.56	0.04	9	4.00	0.24	0.56
127	when and how to perform focused assessments/reassessments (e.g., pain systems, disease process)	269	4.59	0.04	9	4.56	0.18	0.03
48	signs/symptoms/interventions of an allergic or sensitivity reaction	259	4.60	0.03	9	4.78	0.15	-0.18
112	medications (e.g., therapeutic effects, side effects, common cross allergies, interactions)	258	4.62	0.04	9	4.67	0.24	-0.05
5	client and care prioritization (who to see first, what to do first)	259	4.64	0.04	9	4.67	0.24	-0.03
38	infection control principles	260	4.64	0.04	9	4.33	0.17	0.31
51	physical assessment techniques	259	4.67	0.03	9	4.67	0.17	0.00
113	medication administration procedures (preparation, titration, storage)	258	4.68	0.03	9	4.78	0.15	-0.10
135	signs/symptoms/treatments of impaired ventilation/oxygenation	267	4.69	0.03	9	4.67	0.17	0.03
153	recognizing/activating/providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	269	4.70	0.04	8	4.75	0.16	-0.05
108	rights of medication administration (identify and apply)	258	4.74	0.03	9	4.89	0.11	-0.15
125	vital sign measurement, interventions related to changes	270	4.75	0.03	9	4.67	0.17	0.08
14	critical signs and symptoms (identify and intervene)	257	4.81	0.03	8	4.88	0.13	-0.07

Table title: **RN Supervisors and SME Knowledge Statement Ratings Rank Ordered by RN Supervisor Average Importance**

APPENDIX H: LABORATORY VALUES SORTED BY SURVEY ORDER

Preface: Is it important for the newly licensed RN to memorize the following laboratory values?

	Laboratory Values Sorted by Survey Order		
	Laboratory Values	**N**	**Percent**
Lab1	Normal lab value for BUN (blood, urea, nitrogen)	1798	76.42%
Lab2	Normal lab value for arterial blood gases (pH, PO2, PCO2, SaO2, HCO3)	1801	75.74%
Lab3	Normal lab value for cholesterol (total)	1796	43.65%
Lab4	Normal lab value for glucose	1810	96.08%
Lab5	Normal lab value for hematocrit (Hct)	1806	90.53%
Lab6	Normal lab value for hemoglobin (Hgb)	1810	92.65%
Lab7	Normal lab value for hemoglobin A1C (HgbA1C)	1803	53.41%
Lab8	Normal lab value for platelets	1805	78.06%
Lab9	Normal lab value for potassium (K+)	1809	94.25%
Lab10	Normal lab value for red blood count (RBC)	1801	65.35%
Lab11	Normal lab value for sodium (Na+)	1806	86.60%
Lab12	Normal lab value for white blood count (WBC)	1808	90.10%
Lab13	Normal lab value for albumin (blood)	1798	35.60%
Lab14	Normal lab value for ALT (SGPT)	1802	27.86%
Lab15	Normal lab value for ammonia	1804	27.99%
Lab16	Normal lab value for AST (SGOT)	1803	27.51%
Lab17	Normal lab value for bilirubin	1803	33.56%
Lab18	Normal lab value for bleeding time	1799	61.42%
Lab19	Normal lab value for cholesterol (HDL and LDL)	1787	39.06%
Lab20	Normal lab value for creatinine	1803	69.44%
Lab21	Normal lab value for digoxin	1800	62.33%
Lab22	Normal lab value for ESR	1804	22.51%
Lab23	Normal lab value for lithium	1806	34.22%
Lab24	Normal lab value for magnesium	1801	45.03%
Lab25	Normal lab value for PTT and APTT	1803	71.38%
Lab26	Normal lab value for phosphorus/phosphate	1799	21.01%
Lab27	Normal lab value for protein (total)	1793	25.60%
Lab28	Normal lab value for prothrombin time (PT)	1802	74.08%
Lab29	Normal lab value for urine (alb, pH, white blood cell count [WBC] and %T lymphocytes [differential])	1795	42.40%
Lab30	Normal lab value for INR	1799	73.15%

APPENDIX I: LABORATORY VALUES RANKED BY PERCENT ANSWERING YES

Preface: Is it important for the newly licensed RN to memorize the following laboratory values?

	Laboratory Values Ranked by Percent Answering Yes*		
	Laboratory Values	**N**	**Percent**
Lab26	Normal lab value for phosphorus/phosphate	1799	21.01%
Lab22	Normal lab value for ESR	1804	22.51%
Lab27	Normal lab value for protein (total)	1793	25.60%
Lab16	Normal lab value for AST (SGOT)	1803	27.51%
Lab14	Normal lab value for ALT (SGPT)	1802	27.86%
Lab15	Normal lab value for ammonia	1804	27.99%
Lab17	Normal lab value for bilirubin	1803	33.56%
Lab23	Normal lab value for lithium	1806	34.22%
Lab13	Normal lab value for albumin (blood)	1798	35.60%
Lab19	Normal lab value for cholesterol (HDL and LDL)	1787	39.06%
Lab29	Normal lab value for urine (alb, pH, white blood cell count [WBC] and %T lymphocytes [differential])	1795	42.40%
Lab3	Normal lab value for cholesterol (total)	1796	43.65%
Lab24	Normal lab value for magnesium	1801	45.03%
Lab7	Normal lab value for hemoglobin A1C (HgbA1C)	1803	53.41%
Lab18	Normal lab value for bleeding time	1799	61.42%
Lab21	Normal lab value for digoxin	1800	62.33%
Lab10	Normal lab value for red blood count (RBC)	1801	65.35%
Lab20	Normal lab value for creatinine	1803	69.44%
Lab25	Normal lab value for PTT and APTT	1803	71.38%
Lab30	Normal lab value for INR	1799	73.15%
Lab28	Normal lab value for prothrombin time (PT)	1802	74.08%
Lab2	Normal lab value for arterial blood gases (pH, PO2, PCO2, SaO2, HCO3)	1801	75.74%
Lab1	Normal lab value for BUN (blood, urea, nitrogen)	1798	76.42%
Lab8	Normal lab value for platelets	1805	78.06%
Lab11	Normal lab value for sodium (Na+)	1806	86.60%
Lab12	Normal lab value for white blood count (WBC)	1808	90.10%
Lab5	Normal lab value for hematocrit (Hct)	1806	90.53%
Lab6	Normal lab value for hemoglobin (Hgb)	1810	92.65%
Lab9	Normal lab value for potassium (K+)	1809	94.25%
Lab4	Normal lab value for glucose	1810	96.08%
* Laboratory Values are rank ordered from least to highest percentage rating.			

APPENDIX J: KNOWLEDGE STATEMENTS SUBGROUP ANALYSIS: PRIMARY JOB TITLE

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statements	Newly Licensed RN N	Avg.	Std. Err.	RN Educator N	Avg.	Std. Err.	RN Supervisor N	Avg.	Std. Err.	New vs Educator Difference	New vs Supervisor Difference	Educator vs Supervisor Difference
1	available community resources for discharge planning	593	3.43	0.04	934	3.50	0.03	257	3.11	0.06	-0.07	0.32	0.39
2	communication skills/language (e.g., professional, therapeutic, alternative forms for those with impaired communication)	593	4.26	0.03	931	4.67	0.02	258	4.38	0.05	-0.41	-0.12	0.29
3	how to provide/evaluate client/staff education	591	3.81	0.04	930	3.86	0.03	256	3.96	0.05	-0.05	-0.16	-0.11
4	signs and symptoms of altered elimination (e.g., bowel, urinary)	593	4.35	0.03	933	4.47	0.02	256	4.54	0.04	-0.12	-0.18	-0.07
5	client and care prioritization (who to see first, what to do first)	590	4.67	0.03	934	4.79	0.02	259	4.64	0.04	-0.12	0.04	0.16
6	hand-off/reporting process (e.g., transfer, shift report)	593	4.09	0.03	930	4.25	0.02	257	4.35	0.04	-0.17	-0.27	-0.10
7	rules of delegation (who can delegate to whom)	593	3.97	0.04	935	4.28	0.03	259	4.04	0.05	-0.31	-0.07	0.23
8	tube feeding administration, maintenance, and complications	592	3.99	0.04	934	4.05	0.03	258	4.19	0.05	-0.06	-0.20	-0.14
9	client rights and responsibilities	591	4.01	0.04	928	4.37	0.02	258	4.16	0.05	-0.37	-0.15	0.22
10	trade names for medications	590	3.67	0.04	928	3.63	0.03	258	3.81	0.06	0.03	-0.14	-0.17
11	treatment options to advocate for client	591	3.79	0.03	934	3.77	0.03	259	3.7	0.05	0.02	0.09	0.07
12	client confidentiality/ privacy	590	4.33	0.03	935	4.73	0.02	258	4.51	0.04	-0.39	-0.18	0.22

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statements	Newly Licensed RN			RN Educator			RN Supervisor			New vs Educator	New vs Supervisor	Educator vs Supervisor
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
13	additional advocacy resources (e.g., social worker, chain of command, translator)	592	3.77	0.04	932	3.81	0.03	259	3.66	0.06	-0.04	0.11	0.15
14	critical signs and symptoms (identify and intervene)	590	4.83	0.02	933	4.85	0.01	257	4.81	0.03	-0.03	0.02	0.05
15	data collection methods (e.g., chart review, incident reports)	593	3.63	0.04	932	3.72	0.03	259	3.71	0.06	-0.09	-0.09	0.00
16	acceptable methods of documentation (e.g., "do not use" abbreviations)	591	3.85	0.04	932	4.24	0.03	259	4.20	0.05	-0.38	-0.35	0.03
17	quality indicators (determined by institution regarding care)	593	3.37	0.04	933	3.44	0.03	260	3.53	0.06	-0.07	-0.17	-0.09
18	team member roles and responsibilities	591	3.69	0.03	935	3.82	0.03	258	3.78	0.05	-0.13	-0.08	0.04
19	referral process to interdisciplinary team members	592	3.42	0.04	930	3.45	0.03	258	3.50	0.05	-0.03	-0.08	-0.05
20	order verification and clarification processes	590	4.27	0.04	929	4.42	0.03	260	4.38	0.05	-0.15	-0.11	0.04
21	phototherapy indications, techniques, equipment, and safety precautions	592	3.16	0.05	929	3.17	0.04	259	3.00	0.07	-0.01	0.16	0.17
22	advance directive process (e.g., obtain, update, present on chart)	593	3.70	0.04	931	3.83	0.03	260	3.91	0.06	-0.12	-0.20	-0.08
23	supply and resource management (e.g. obtain and reconcile supplies)	591	3.13	0.04	927	2.77	0.03	259	3.01	0.07	0.35	0.12	-0.24
24	Nursing Code of Ethics	592	4.12	0.04	931	4.54	0.02	259	4.47	0.05	-0.42	-0.35	0.07
25	required reporting elements and process (e.g., abuse/neglect, communicable disease, gunshot wound, dog bite)	592	4.02	0.04	932	4.09	0.03	259	4.17	0.05	-0.07	-0.15	-0.08
26	educational tools/resources available for client	591	3.72	0.03	933	3.75	0.03	259	3.59	0.05	-0.03	0.13	0.16
27	scope of practice (for self and others)	592	4.34	0.03	932	4.65	0.02	260	4.53	0.04	-0.31	-0.19	0.11
28	staff resources (e.g., chain of command, charge nurse)	592	3.84	0.03	931	3.95	0.03	260	3.94	0.05	-0.11	-0.10	0.01
29	consent process (e.g., informed consent, implied consent, emancipated minor)	591	4.11	0.03	932	4.27	0.02	260	4.07	0.05	-0.16	0.05	0.21

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statements	Newly Licensed RN			RN Educator			RN Supervisor			New vs Educator	New vs Supervisor	Educator vs Supervisor
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
30	conflict management principles	592	3.45	0.04	930	3.71	0.03	260	3.78	0.05	-0.26	-0.34	-0.07
31	ethical dilemmas for area of practice and actions to be taken (personal/societal)	591	3.60	0.04	933	3.92	0.03	260	3.73	0.05	-0.32	-0.14	0.18
32	continuing education requirements for professional development needs	593	3.53	0.04	929	3.54	0.03	260	3.50	0.06	0.00	0.03	0.04
33	evidence-based practice resources (e.g., journals, research, best practices)	593	3.41	0.04	930	3.90	0.03	259	3.66	0.06	-0.48	-0.25	0.24
34	nursing/medical terminology	593	4.18	0.03	933	4.38	0.02	260	4.44	0.04	-0.20	-0.27	-0.07
35	time management techniques	594	4.27	0.03	932	4.10	0.03	260	4.18	0.05	0.18	0.09	-0.09
36	standards of practice	593	4.29	0.03	934	4.51	0.02	259	4.52	0.04	-0.22	-0.23	-0.01
37	unsafe practice reporting process	593	3.96	0.03	930	4.15	0.03	259	4.21	0.05	-0.20	-0.25	-0.05
38	infection control principles	593	4.49	0.03	927	4.68	0.02	260	4.64	0.04	-0.18	-0.15	0.03
39	signs and symptoms of occupational/environmental exposures (e.g., lead, asbestos)	593	3.62	0.04	932	3.41	0.03	259	3.46	0.06	0.21	0.16	-0.05
40	risk assessment tools (e.g., fall risk, Braden scale, home safety)	591	3.96	0.04	932	4.04	0.03	258	4.17	0.05	-0.08	-0.21	-0.13
41	biohazardous materials, handling, disposal, and resources available (e.g., OSHA, Material Safety Data Sheet (MSDS))	593	3.65	0.04	933	3.79	0.03	257	3.79	0.06	-0.14	-0.13	0.01
42	security plan/role in response to security alert	593	3.61	0.04	933	3.74	0.03	260	3.64	0.06	-0.13	-0.03	0.10
43	ergonomic principles (applied to self and client)	591	3.69	0.04	933	3.93	0.03	260	3.88	0.06	-0.23	-0.19	0.04
44	specific client identification procedures	588	4.28	0.04	931	4.59	0.02	260	4.24	0.06	-0.31	0.03	0.34
45	intended purpose and function of equipment and trouble-shooting procedures	590	3.69	0.04	930	3.56	0.03	259	3.67	0.06	0.14	0.03	-0.11
46	disaster response plan/role	591	3.55	0.04	931	3.54	0.03	259	3.64	0.06	0.02	-0.09	-0.10
47	types/application/monitoring of restraints	592	3.79	0.04	929	4.13	0.03	259	4.07	0.06	-0.34	-0.28	0.06

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statements	Newly Licensed RN			RN Educator			RN Supervisor			New vs Educator	New vs Supervisor	Educator vs Supervisor
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
48	signs/symptoms/interventions of an allergic or sensitivity reaction	592	4.60	0.03	931	4.65	0.02	259	4.60	0.03	-0.05	0.00	0.05
49	signs and symptoms of communicable diseases	593	4.33	0.03	928	4.24	0.03	260	4.26	0.05	0.09	0.07	-0.02
50	locating and maintaining emergency response equipment	591	4.35	0.03	931	4.27	0.03	258	4.14	0.06	0.08	0.21	0.13
51	physical assessment techniques	592	4.57	0.03	931	4.69	0.02	259	4.67	0.03	-0.12	-0.1	0.02
52	components of comprehensive health history data	593	4.00	0.03	931	4.23	0.02	260	4.27	0.04	-0.23	-0.27	-0.04
53	anatomy and physiology (normal body systems, identify alterations)	592	4.41	0.03	931	4.45	0.02	259	4.53	0.04	-0.04	-0.12	-0.07
54	perinatal care and complications (antepartum, intrapartum, postpartum)	589	3.75	0.05	927	3.81	0.03	260	3.52	0.07	-0.06	0.23	0.29
55	normal newborn transition/growth	592	3.51	0.04	929	3.70	0.03	260	3.43	0.07	-0.19	0.08	0.27
56	hemodialysis techniques, methods and equipment	593	3.50	0.04	929	3.05	0.03	259	3.22	0.07	0.45	0.28	-0.17
57	adult aging process	593	3.67	0.04	929	3.94	0.03	260	4.03	0.05	-0.27	-0.37	-0.09
58	methods to evaluate client ability for self care	592	3.71	0.04	931	4.02	0.03	259	3.98	0.05	-0.31	-0.27	0.04
59	targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)	593	3.28	0.04	933	3.15	0.03	259	3.08	0.06	0.13	0.20	0.08
60	normal growth and development	592	3.70	0.04	935	4.00	0.03	258	3.68	0.05	-0.29	0.02	0.32
61	high risk behaviors (e.g., smoking)	593	3.70	0.04	934	3.94	0.03	259	3.69	0.05	-0.23	0.02	0.25
62	health maintenance recommendations	593	3.68	0.04	933	3.88	0.03	259	3.57	0.05	-0.20	0.11	0.31
63	common barriers to routine health care	592	3.49	0.04	936	3.62	0.03	259	3.42	0.05	-0.14	0.06	0.20
64	client learning assessment tools/learning styles	593	3.49	0.04	935	3.63	0.03	256	3.59	0.05	-0.14	-0.10	0.04
65	population and community health risk factors	593	3.34	0.04	932	3.45	0.03	256	3.29	0.05	-0.11	0.05	0.16
66	available genetic resources for client referral	592	2.84	0.04	932	2.77	0.03	255	2.67	0.06	0.07	0.17	0.09

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statements	Newly Licensed RN			RN Educator			RN Supervisor			New vs Educator Difference	New vs Supervisor Difference	Educator vs Supervisor Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
67	cultural diversity and implications for care (e.g., religion, ethnicity, world view)	592	3.63	0.04	935	4.08	0.03	256	3.82	0.06	-0.46	-0.19	0.26
68	stress management and coping strategies	593	3.91	0.04	934	4.11	0.03	257	4.06	0.05	-0.20	-0.15	0.05
69	signs/symptoms/treatment of abuse/neglect	593	4.17	0.03	934	4.38	0.02	257	4.30	0.05	-0.21	-0.13	0.08
70	counseling and therapeutic techniques	592	3.68	0.04	935	3.71	0.03	256	3.41	0.06	-0.03	0.28	0.30
71	therapeutic environment (how to establish/maintain)	592	3.78	0.04	936	4.00	0.03	257	3.55	0.05	-0.21	0.23	0.45
72	signs/symptoms/management of toxicity, dependency, and withdrawal	593	4.15	0.03	935	3.94	0.03	257	3.74	0.06	0.21	0.42	0.20
73	stages of death and dying	592	3.89	0.03	935	3.95	0.03	258	4.21	0.05	-0.06	-0.32	-0.26
74	grief processes (identify and support)	592	3.71	0.03	933	3.89	0.03	256	3.94	0.05	-0.18	-0.23	-0.05
75	group dynamics	593	3.19	0.04	934	3.40	0.03	257	3.42	0.06	-0.21	-0.24	-0.02
76	cycle of violence (identify family/community dynamics, intervene)	593	3.49	0.04	933	3.73	0.03	257	3.44	0.06	-0.24	0.05	0.29
77	safety precautions for violent behavior	592	3.98	0.04	932	4.20	0.03	257	3.98	0.05	-0.22	0.00	0.22
78	diversity of family structures and functions	592	3.30	0.04	931	3.50	0.03	257	3.37	0.06	-0.20	-0.07	0.13
79	addictive behaviors (signs, symptoms and interventions)	592	3.71	0.04	932	3.73	0.03	257	3.58	0.05	-0.02	0.13	0.15
80	behavioral management techniques (e.g., positive reinforcement, setting limits)	592	3.64	0.04	932	3.66	0.03	257	3.66	0.05	-0.01	-0.02	-0.01
81	signs and symptoms of caregiver burnout	591	3.65	0.04	931	3.64	0.03	254	3.69	0.05	0.01	-0.04	-0.05
82	intervention techniques for clients with altered perceptions	592	3.71	0.03	932	3.84	0.03	255	3.59	0.05	-0.13	0.12	0.25
83	body image disturbance and appropriate interventions	593	3.41	0.04	930	3.57	0.03	258	3.28	0.06	-0.16	0.13	0.29
84	components of intake and output	592	4.21	0.03	931	4.50	0.02	258	4.30	0.05	-0.29	-0.09	0.20
85	application of math (drip factors, I/O)	590	4.40	0.04	929	4.67	0.02	256	4.33	0.05	-0.26	0.07	0.34
86	leadership and management skills	592	3.68	0.04	928	3.69	0.03	258	3.66	0.06	0.00	0.02	0.02

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statements	Newly Licensed RN			RN Educator			RN Supervisor			New vs Educator Difference	New vs Supervisor Difference	Educator vs Supervisor Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
87	post-mortem care (institutional policy and procedures)	592	3.27	0.04	931	3.00	0.03	257	3.26	0.06	0.27	0.02	-0.25
88	basic information on organ donation and tissue care	592	3.28	0.04	931	3.08	0.03	257	3.21	0.06	0.2	0.07	-0.12
89	irrigation procedures (e.g., eye, ear, bladder)	593	3.63	0.04	929	3.51	0.03	257	3.72	0.06	0.11	-0.10	-0.21
90	alternative/complementary therapies (e.g., music/relaxation techniques, herbal therapies)	593	3.10	0.04	932	3.21	0.03	258	3.05	0.06	-0.12	0.04	0.16
91	insertion, maintenance, and removal process for tubes and catheters	593	4.35	0.03	931	4.26	0.03	256	4.32	0.05	0.09	0.03	-0.06
92	orthopedic devices and their use (e.g., traction, splint, braces)	592	3.72	0.04	933	3.65	0.03	257	3.77	0.05	0.07	-0.05	-0.12
93	interventions to promote sleep/rest	590	3.62	0.04	928	3.87	0.03	254	3.65	0.05	-0.25	-0.02	0.22
94	application and maintenance of devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)	592	4.07	0.04	932	4.08	0.03	258	4.09	0.05	-0.01	-0.02	-0.01
95	pain scales (identify and apply)	593	4.23	0.03	933	4.53	0.02	257	4.56	0.04	-0.30	-0.33	-0.04
96	non-pharmacological comfort measures (e.g., relaxation techniques)	592	3.60	0.04	933	4.04	0.03	258	3.84	0.05	-0.44	-0.24	0.20
97	signs and symptoms of alterations in nutritional status	592	3.96	0.03	934	4.18	0.02	257	4.11	0.05	-0.22	-0.15	0.08
98	inflammatory process (identification and treatment)	593	4.11	0.03	932	4.25	0.02	257	4.17	0.04	-0.15	-0.06	0.08
99	institutional policies and regulations regarding client care	593	3.83	0.04	930	3.76	0.03	257	3.77	0.06	0.07	0.05	-0.01
100	urinary and bowel diversion procedures	592	3.78	0.04	932	3.68	0.03	256	3.93	0.05	0.10	-0.15	-0.25
101	measures to maintain skin integrity	592	4.41	0.03	932	4.48	0.02	258	4.55	0.04	-0.07	-0.14	-0.07
102	diet and nutritional needs relative to disease process	593	3.99	0.03	930	4.10	0.02	257	4.12	0.04	-0.11	-0.14	-0.03
103	activities of daily living (ADL) and instrumental activities of daily living (IADL)	591	3.67	0.04	926	3.95	0.03	257	4.05	0.05	-0.28	-0.38	-0.10
104	trade names for medications	592	3.71	0.04	932	3.61	0.03	257	3.73	0.06	0.09	-0.02	-0.12

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statements	Newly Licensed RN			RN Educator			RN Supervisor			New vs Educator Difference	New vs Supervisor Difference	Educator vs Supervisor Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.			
105	peripheral intravenous line, insertion, management, supplies and complications	593	4.51	0.03	930	4.38	0.03	258	4.36	0.05	0.13	0.16	0.03
106	proper handling and disposal of controlled substances (e.g, counting narcotics, wasting narcotics)	593	4.28	0.03	932	4.38	0.03	258	4.40	0.05	-0.10	-0.12	-0.02
107	epidural anesthesia principles and care	593	3.72	0.04	931	3.48	0.04	258	3.33	0.07	0.23	0.39	0.16
108	rights of medication administration (identify and apply)	593	4.63	0.03	932	4.86	0.01	258	4.74	0.03	-0.23	-0.11	0.13
109	parenteral nutrition administration methods and maintenance	591	4.12	0.04	932	4.15	0.03	257	4.08	0.06	-0.04	0.04	0.07
110	blood administration procedures (e.g., verify compatibility, reactions, treatments)	589	4.63	0.03	933	4.47	0.03	258	4.24	0.06	0.16	0.39	0.22
111	techniques used to access and maintain central venous access devices (tunneled, implanted, central lines)	592	4.37	0.03	933	4.12	0.03	258	4.21	0.06	0.25	0.16	-0.09
112	medications (e.g., therapeutic effects, side effects, common cross allergies, interactions)	591	4.56	0.03	933	4.78	0.02	258	4.62	0.04	-0.22	-0.06	0.16
113	medication administration procedures (preparation, titration, storage)	590	4.48	0.03	933	4.71	0.02	258	4.68	0.03	-0.23	-0.20	0.03
114	pharmacological measures to manage pain	591	4.28	0.03	929	4.53	0.02	257	4.46	0.04	-0.26	-0.18	0.08
115	assistive devices and equipment (availability and use)	592	3.59	0.04	929	3.61	0.03	257	3.65	0.05	-0.01	-0.05	-0.04
116	generic drug names	590	3.90	0.04	929	3.97	0.03	258	3.95	0.06	-0.06	-0.04	0.02
117	drug classifications	592	4.07	0.04	929	4.33	0.03	258	4.17	0.05	-0.27	-0.10	0.16
118	specific medication names	590	3.88	0.04	926	3.87	0.03	258	3.98	0.06	0.01	-0.10	-0.11
119	medication reconciliation processes	602	3.98	0.04	939	3.94	0.03	269	4.29	0.05	0.04	-0.31	-0.35
120	moderate sedation (complications, scores, interventions)	603	3.96	0.04	941	3.75	0.03	269	3.81	0.05	0.22	0.16	-0.06
121	indications and contraindications of treatments/procedures	603	4.25	0.03	940	4.24	0.02	270	4.26	0.04	0.01	-0.02	-0.03

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statements	Newly Licensed RN			RN Educator			RN Supervisor			New vs Educator Difference	New vs Supervisor Difference	Educator vs Supervisor Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
122	effect of co-morbidities on medical condition/ disease process	602	4.02	0.03	940	4.01	0.03	270	4.10	0.05	0.01	-0.08	-0.09
123	indications/techniques for glucose monitoring and quality control	602	4.16	0.03	938	4.33	0.02	270	4.37	0.04	-0.17	-0.21	-0.04
124	risk reduction concepts and techniques	601	3.87	0.04	937	4.02	0.03	270	3.91	0.05	-0.15	-0.04	0.11
125	vital sign measurement, interventions related to changes	602	4.58	0.03	940	4.76	0.02	270	4.75	0.03	-0.18	-0.17	0.01
126	tests/treatment/procedures appropriate for client needs	604	4.10	0.03	935	4.17	0.02	270	4.09	0.05	-0.07	0.01	0.09
127	when and how to perform focused assessments/reassessments (e.g., pain systems, disease process)	601	4.45	0.03	936	4.63	0.02	269	4.59	0.04	-0.18	-0.14	0.05
128	peri-operative care and risk reduction strategies (e.g., embolism prophylaxis, site verification, time out process, sponge counts)	604	4.18	0.04	937	4.02	0.04	269	3.90	0.06	0.16	0.28	0.11
129	intra-operative environment (e.g. sterile technique, roles and responsibilities, equipment requirements)	603	4.06	0.04	933	3.53	0.04	270	3.70	0.07	0.53	0.36	-0.17
130	process to report critical diagnostic test results	601	4.41	0.03	938	4.40	0.03	269	4.45	0.05	0.00	-0.04	-0.05
131	how to perform diagnostic testing (e.g., electrocardiogram, O2 saturation, urine specific gravity)	601	3.94	0.04	939	3.53	0.03	270	3.64	0.06	0.41	0.30	-0.11
132	fetal heart rate monitoring and recognition of fetal well-being/distress	602	3.95	0.05	937	3.65	0.04	269	3.31	0.08	0.30	0.64	0.33
133	specimen collection techniques (e.g., blood, wound cultures, stool, urine specimens) and equipment/supplies used	603	4.17	0.03	939	4.09	0.03	270	4.13	0.05	0.08	0.03	-0.05
134	hemodynamics, tissue perfusion and homeostasis principles (cerebral, cardiac, peripheral)	603	4.44	0.03	940	4.29	0.03	270	4.17	0.05	0.15	0.27	0.12
135	signs/symptoms/treatments of impaired ventilation/oxygenation	601	4.71	0.02	932	4.72	0.02	267	4.69	0.03	-0.01	0.02	0.02

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statements	Newly Licensed RN			RN Educator			RN Supervisor			New vs Educator Difference	New vs Supervisor Difference	Educator vs Supervisor Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
136	drainage devices and related equipment (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)	604	4.08	0.03	940	4.03	0.03	270	4.11	0.05	0.05	-0.03	-0.09
137	safe and effective use of body temperature control devices (e.g., cooling blankets)	604	3.80	0.04	941	3.66	0.03	270	3.66	0.06	0.14	0.14	0.00
138	ventilator management (e.g., suction, oxygen)	604	4.14	0.04	939	3.63	0.04	269	3.68	0.07	0.51	0.46	-0.06
139	nursing role during invasive procedures (e.g., central line placement)	603	4.04	0.04	936	3.70	0.03	269	3.78	0.06	0.34	0.26	-0.08
140	ostomy care procedures and supplies	603	3.73	0.04	937	3.59	0.03	270	3.83	0.05	0.14	-0.10	-0.24
141	peritoneal dialysis techniques, methods, and equipment	601	3.46	0.04	937	3.03	0.03	269	3.17	0.06	0.43	0.29	-0.14
142	immunization schedule	602	3.20	0.04	940	3.29	0.03	269	3.20	0.06	-0.09	0.01	0.09
143	pulmonary hygiene techniques, methods, and equipment	601	3.88	0.04	940	3.87	0.03	270	3.78	0.06	0.01	0.10	0.09
144	telemetry monitoring and interpretation of cardiac rhythms	603	4.18	0.04	939	3.52	0.03	267	3.45	0.07	0.67	0.73	0.07
145	acute and chronic disease processes and appropriate care	601	4.20	0.03	937	4.30	0.02	269	4.26	0.04	-0.10	-0.06	0.04
146	transcription protocol/processes (how to transcribe orders)	601	3.89	0.04	939	3.84	0.04	269	4.12	0.06	0.05	-0.23	-0.28
147	post operative care (e.g., client response to surgery)	602	4.19	0.03	938	4.29	0.03	269	4.06	0.06	-0.10	0.13	0.23
148	cardiac pacing methods, techniques, and equipment	599	3.89	0.04	932	3.18	0.04	269	3.32	0.07	0.72	0.58	-0.14
149	principles to maintain arterial lines	600	3.97	0.04	937	3.24	0.04	268	3.33	0.07	0.73	0.64	-0.09
150	signs and symptoms of overhydration and dehydration	601	4.44	0.03	937	4.55	0.02	270	4.49	0.04	-0.11	-0.05	0.06
151	wounds and wound care (e.g., products, procedures, and treatment)	602	4.09	0.03	939	4.21	0.02	270	4.25	0.05	-0.12	-0.16	-0.04
152	tracheostomy care and supplies	602	3.97	0.04	937	3.87	0.03	270	3.97	0.05	0.09	-0.01	-0.10
153	recognizing/activating/providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	600	4.81	0.02	939	4.76	0.02	269	4.70	0.04	0.05	0.11	0.06

APPENDIX K: KNOWLEDGE STATEMENTS SUBGROUP ANALYSIS: FACILITY

Knowledge Statements Subgroup Analysis: Facility

Survey Position #	Knowledge Statements	Hospital			Long-Term Care			Community-Based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
1	available community resources for discharge planning	1306	3.37	0.03	156	3.31	0.09	146	3.71	0.08	92	3.77	0.09
2	communication skills/language (e.g., professional, therapeutic, alternative forms for those with impaired communication)	1306	4.48	0.02	157	4.31	0.06	145	4.54	0.06	90	4.84	0.04
3	how to provide/evaluate client/staff education	1302	3.83	0.03	154	4.01	0.07	146	3.93	0.08	91	3.70	0.09
4	signs and symptoms of altered elimination (e.g., bowel, urinary)	1307	4.44	0.02	155	4.58	0.05	145	4.26	0.07	91	4.43	0.07
5	client and care prioritization (who to see first, what to do first)	1307	4.76	0.01	157	4.60	0.05	144	4.61	0.05	91	4.68	0.06
6	hand-off/reporting process (e.g., transfer, shift report)	1306	4.23	0.02	155	4.32	0.05	145	3.94	0.08	90	4.12	0.09
7	rules of delegation (who can delegate to whom)	1308	4.16	0.02	156	4.06	0.06	146	4.01	0.07	92	4.09	0.09
8	tube feeding administration, maintenance, and complications	1307	4.03	0.02	156	4.46	0.05	146	3.74	0.09	91	4.15	0.10
9	client rights and responsibilities	1300	4.18	0.02	156	4.30	0.06	146	4.26	0.07	91	4.41	0.06
10	trade names for medications	1301	3.62	0.03	157	3.97	0.07	144	3.69	0.09	91	3.77	0.10
11	treatment options to advocate for client	1306	3.75	0.02	157	3.86	0.07	146	3.74	0.07	91	3.88	0.08
12	client confidentiality/privacy	1307	4.55	0.02	156	4.42	0.06	145	4.62	0.05	92	4.76	0.05
13	additional advocacy resources (e.g., social worker, chain of command, translator)	1305	3.76	0.02	156	3.78	0.07	146	3.75	0.08	91	3.92	0.09
14	critical signs and symptoms (identify and intervene)	1301	4.84	0.01	156	4.81	0.04	146	4.81	0.04	92	4.88	0.04
15	data collection methods (e.g., chart review, incident reports)	1304	3.64	0.03	157	3.99	0.06	146	3.58	0.09	92	3.85	0.09
16	acceptable methods of documentation (e.g., "do not use" abbreviations)	1303	4.08	0.02	157	4.13	0.06	145	4.08	0.07	92	4.28	0.08

Knowledge Statements Subgroup Analysis: Facility

Survey Position #	Knowledge Statements	Hospital			Long-Term Care			Community-Based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
17	quality indicators (determined by institution regarding care)	1307	3.39	0.03	157	3.61	0.08	146	3.39	0.08	92	3.52	0.10
18	team member roles and responsibilities	1306	3.75	0.02	156	3.88	0.06	145	3.66	0.07	92	3.92	0.08
19	referral process to interdisciplinary team members	1305	3.39	0.02	156	3.67	0.07	145	3.54	0.08	90	3.6	0.10
20	order verification and clarification processes	1302	4.34	0.02	157	4.52	0.06	146	4.36	0.07	91	4.42	0.07
21	phototherapy indications, techniques, equipment, and safety precautions	1303	3.11	0.03	156	3.25	0.10	146	3.13	0.09	91	3.31	0.12
22	advance directive process (e.g., obtain, update, present on chart)	1307	3.75	0.03	157	4.11	0.07	146	3.83	0.08	91	3.87	0.10
23	supply and resource management (e.g. obtain and reconcile supplies)	1303	2.88	0.03	156	3.17	0.08	145	2.92	0.09	90	3.00	0.12
24	Nursing Code of Ethics	1306	4.35	0.02	157	4.49	0.05	144	4.42	0.07	91	4.59	0.07
25	required reporting elements and process (e.g., abuse/neglect, communicable disease, gunshot wound, dog bite)	1306	4.01	0.02	157	4.44	0.06	145	4.18	0.07	91	4.22	0.08
26	educational tools/resources available for client	1305	3.71	0.02	156	3.65	0.06	146	3.67	0.08	92	3.87	0.09
27	scope of practice (for self and others)	1305	4.52	0.02	157	4.48	0.06	146	4.51	0.05	92	4.63	0.06
28	staff resources (e.g., chain of command, charge nurse)	1306	3.91	0.02	157	3.96	0.06	145	3.72	0.08	91	3.93	0.09
29	consent process (e.g., informed consent, implied consent, emancipated minor)	1305	4.18	0.02	157	4.03	0.07	146	4.20	0.07	91	4.38	0.07
30	conflict management principles	1304	3.58	0.02	157	3.79	0.07	146	3.61	0.07	91	3.92	0.08
31	ethical dilemmas for area of practice and actions to be taken (personal/societal)	1306	3.75	0.02	157	3.84	0.07	146	3.82	0.07	91	4.04	0.08
32	continuing education requirements for professional development needs	1306	3.5	0.03	157	3.75	0.07	145	3.44	0.09	91	3.66	0.10
33	evidence-based practice resources (e.g., journals, research, best practices)	1306	3.67	0.03	156	3.62	0.07	146	3.77	0.08	91	3.91	0.09
34	nursing/medical terminology	1307	4.30	0.02	157	4.36	0.06	146	4.31	0.06	91	4.45	0.07

Knowledge Statements Subgroup Analysis: Facility

Survey Position #	Knowledge Statements	Hospital			Long-Term Care			Community-Based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
35	time management techniques	1307	4.18	0.02	157	4.13	0.06	146	3.99	0.08	91	4.13	0.08
36	standards of practice	1308	4.41	0.02	157	4.52	0.05	146	4.38	0.06	91	4.65	0.06
37	unsafe practice reporting process	1305	4.04	0.02	157	4.29	0.06	146	4.14	0.07	90	4.24	0.09
38	infection control principles	1303	4.60	0.02	157	4.63	0.05	145	4.63	0.05	90	4.67	0.06
39	signs and symptoms of occupational/ environmental exposures (e.g., lead, asbestos)	1308	3.42	0.03	157	3.70	0.07	146	3.58	0.08	89	3.63	0.11
40	risk assessment tools (e.g., fall risk, Braden scale, home safety)	1305	4.01	0.02	156	4.20	0.06	146	3.89	0.08	90	4.14	0.09
41	biohazardous materials, handling, disposal, and resources available (e.g., OSHA, Material Safety Data Sheet (MSDS))	1307	3.68	0.03	155	3.94	0.07	145	3.88	0.09	91	3.90	0.10
42	security plan/role in response to security alert	1308	3.62	0.03	157	3.87	0.07	146	3.72	0.08	91	3.90	0.10
43	ergonomic principles (applied to self and client)	1307	3.82	0.03	157	3.91	0.07	146	3.80	0.08	90	3.96	0.10
44	specific client identification procedures	1303	4.45	0.02	157	4.24	0.06	146	4.35	0.07	90	4.58	0.08
45	intended purpose and function of equipment and trouble-shooting procedures	1301	3.60	0.02	156	3.78	0.07	146	3.50	0.08	91	3.76	0.10
46	disaster response plan/role	1305	3.47	0.03	156	3.97	0.08	144	3.61	0.08	91	3.80	0.10
47	types/application/monitoring of restraints	1303	4.01	0.02	157	4.04	0.08	145	3.64	0.09	91	4.24	0.08
48	signs/symptoms/interventions of an allergic or sensitivity reaction	1304	4.63	0.02	156	4.59	0.05	146	4.62	0.05	91	4.74	0.06
49	signs and symptoms of communicable diseases	1304	4.24	0.02	157	4.40	0.06	146	4.28	0.06	90	4.36	0.09
50	locating and maintaining emergency response equipment	1303	4.27	0.02	155	4.37	0.07	146	4.12	0.08	91	4.41	0.09
51	physical assessment techniques	1303	4.66	0.02	157	4.59	0.04	146	4.60	0.05	91	4.63	0.06
52	components of comprehensive health history data	1305	4.14	0.02	157	4.13	0.06	146	4.25	0.06	91	4.15	0.07
53	anatomy and physiology (normal body systems, identify alterations)	1305	4.45	0.02	156	4.44	0.06	146	4.45	0.06	90	4.42	0.07

Knowledge Statements Subgroup Analysis: Facility

Survey Position #	Knowledge Statements	Hospital			Long-Term Care			Community-Based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
54	perinatal care and complications (antepartum, intrapartum, postpartum)	1299	3.74	0.03	157	3.71	0.10	146	3.64	0.09	90	4.03	0.10
55	normal newborn transition/growth	1303	3.58	0.03	157	3.59	0.09	146	3.51	0.08	91	3.95	0.09
56	hemodialysis techniques, methods and equipment	1304	3.20	0.03	157	3.57	0.08	146	3.01	0.09	90	3.29	0.13
57	adult aging process	1304	3.81	0.02	157	4.10	0.06	145	3.90	0.07	91	4.11	0.08
58	methods to evaluate client ability for self care	1304	3.86	0.02	156	3.97	0.06	146	4.00	0.07	91	4.13	0.08
59	targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)	1305	3.11	0.03	156	3.40	0.08	147	3.37	0.08	92	3.41	0.09
60	normal growth and development	1306	3.84	0.02	156	3.69	0.07	147	3.90	0.07	91	3.99	0.08
61	high risk behaviors (e.g., smoking)	1306	3.82	0.02	156	3.69	0.07	147	3.82	0.07	92	3.95	0.08
62	health maintenance recommendations	1305	3.76	0.02	156	3.66	0.06	147	3.82	0.07	92	3.93	0.07
63	common barriers to routine health care	1307	3.52	0.02	156	3.49	0.07	147	3.65	0.08	92	3.73	0.08
64	client learning assessment tools/ learning styles	1307	3.56	0.02	155	3.52	0.07	146	3.60	0.07	92	3.78	0.09
65	population and community health risk factors	1306	3.34	0.02	155	3.35	0.07	146	3.58	0.08	92	3.63	0.09
66	available genetic resources for client referral	1304	2.71	0.03	154	2.95	0.09	147	2.85	0.08	92	3.03	0.11
67	cultural diversity and implications for care (e.g., religion, ethnicity, world view)	1305	3.87	0.02	156	3.76	0.07	147	3.97	0.07	92	4.12	0.08
68	stress management and coping strategies	1306	4.02	0.02	155	4.09	0.07	147	4.02	0.08	92	4.09	0.09
69	signs/symptoms/treatment of abuse/ neglect	1306	4.25	0.02	155	4.46	0.06	147	4.40	0.05	92	4.50	0.07
70	counseling and therapeutic techniques	1305	3.62	0.02	155	3.62	0.07	147	3.76	0.08	92	3.84	0.09
71	therapeutic environment (how to establish/maintain)	1307	3.85	0.02	155	3.68	0.07	147	3.80	0.08	92	4.13	0.08
72	signs/symptoms/management of toxicity, dependency and withdrawal	1307	3.98	0.02	155	3.90	0.08	147	3.80	0.08	92	4.10	0.09
73	stages of death and dying	1307	3.91	0.02	156	4.29	0.06	147	3.92	0.08	92	4.02	0.08

Knowledge Statements Subgroup Analysis: Facility

Survey Position #	Knowledge Statements	Hospital			Long-Term Care			Community-Based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
74	grief processes (identify and support)	1304	3.80	0.02	154	4.04	0.07	147	3.82	0.07	92	3.96	0.08
75	group dynamics	1305	3.28	0.03	156	3.38	0.08	147	3.44	0.09	92	3.57	0.09
76	cycle of violence (identify family/community dynamics, intervene)	1305	3.56	0.03	156	3.53	0.08	147	3.78	0.08	91	3.96	0.10
77	safety precautions for violent behavior	1303	4.06	0.02	156	4.11	0.07	147	4.11	0.07	91	4.33	0.08
78	diversity of family structures and functions	1303	3.38	0.03	156	3.36	0.07	146	3.53	0.08	91	3.57	0.09
79	addictive behaviors (signs, symptoms and interventions)	1303	3.67	0.02	156	3.69	0.07	147	3.69	0.08	91	3.92	0.10
80	behavioral management techniques (e.g., positive reinforcement, setting limits)	1304	3.62	0.02	156	3.76	0.07	147	3.62	0.08	91	3.84	0.08
81	signs and symptoms of caregiver burnout	1301	3.58	0.03	153	3.88	0.07	147	3.72	0.07	91	3.77	0.10
82	intervention techniques for clients with altered perceptions	1303	3.74	0.02	154	3.79	0.06	147	3.71	0.08	91	4.07	0.08
83	body image disturbance and appropriate interventions	1303	3.44	0.02	156	3.46	0.07	147	3.48	0.07	91	3.79	0.08
84	components of intake and output	1305	4.40	0.02	156	4.19	0.06	145	4.26	0.07	91	4.46	0.07
85	application of math (drip factors, I/O)	1299	4.55	0.02	155	4.28	0.07	146	4.43	0.07	91	4.69	0.07
86	leadership and management skills	1302	3.62	0.03	156	3.93	0.07	146	3.77	0.08	90	3.78	0.10
87	post-mortem care (institutional policy and procedures)	1304	3.09	0.03	156	3.49	0.08	146	2.97	0.09	90	3.24	0.11
88	basic information on organ donation and tissue care	1304	3.16	0.03	155	3.29	0.08	147	2.92	0.08	91	3.33	0.10
89	irrigation procedures (e.g., eye, ear, bladder)	1303	3.52	0.03	155	3.97	0.07	146	3.55	0.07	91	3.77	0.11
90	alternative/complementary therapies (e.g., music/relaxation techniques, herbal therapies)	1306	3.10	0.03	155	3.26	0.08	147	3.12	0.08	91	3.45	0.10
91	insertion, maintenance, and removal process for tubes and catheters	1306	4.30	0.02	155	4.43	0.05	147	4.07	0.08	90	4.37	0.08
92	orthopedic devices and their use (e.g., traction, splint, braces)	1305	3.66	0.03	155	4.02	0.06	147	3.54	0.08	91	3.82	0.09
93	interventions to promote sleep/rest	1299	3.75	0.02	153	3.69	0.07	147	3.60	0.08	91	4.00	0.07

Knowledge Statements Subgroup Analysis: Facility

Survey Position #	Knowledge Statements	Hospital			Long-Term Care			Community-Based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
94	application and maintenance of devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)	1306	4.08	0.02	155	4.07	0.06	147	3.93	0.08	90	4.13	0.09
95	pain scales (identify and apply)	1304	4.41	0.02	156	4.53	0.05	147	4.42	0.06	92	4.58	0.08
96	non-pharmacological comfort measures (e.g., relaxation techniques)	1306	3.84	0.02	156	3.88	0.06	147	3.81	0.07	90	4.14	0.08
97	signs and symptoms of alterations in nutritional status	1306	4.07	0.02	155	4.24	0.06	147	3.97	0.07	91	4.34	0.07
98	inflammatory process (identification and treatment)	1305	4.19	0.02	156	4.21	0.06	147	4.05	0.07	90	4.33	0.08
99	institutional policies and regulations regarding client care	1302	3.76	0.03	156	4.01	0.07	147	3.66	0.09	91	3.87	0.10
100	urinary and bowel diversion procedures	1304	3.69	0.03	155	4.17	0.06	147	3.59	0.08	90	4.01	0.09
101	measures to maintain skin integrity	1305	4.45	0.02	156	4.58	0.05	147	4.43	0.05	90	4.58	0.06
102	diet and nutritional needs relative to disease process	1304	4.03	0.02	155	4.11	0.06	147	4.15	0.07	90	4.27	0.07
103	activities of daily living (ADL) and instrumental activities of daily living (IADL)	1298	3.81	0.02	156	4.04	0.06	147	3.97	0.07	90	4.16	0.08
104	trade names for medications	1305	3.62	0.03	156	3.90	0.07	146	3.62	0.09	91	3.80	0.11
105	peripheral intravenous line, insertion, management, supplies and complications	1305	4.43	0.02	156	4.48	0.05	146	4.21	0.07	91	4.43	0.08
106	proper handling and disposal of controlled substances (e.g, counting narcotics, wasting narcotics)	1307	4.34	0.02	156	4.51	0.06	145	4.12	0.08	91	4.49	0.08
107	epidural anesthesia principles and care	1304	3.58	0.03	156	3.40	0.10	147	3.17	0.10	91	3.67	0.11
108	rights of medication administration (identify and apply)	1305	4.78	0.01	156	4.71	0.05	147	4.66	0.05	91	4.89	0.04
109	parenteral nutrition administration methods and maintenance	1305	4.12	0.02	155	4.15	0.08	146	3.92	0.08	91	4.40	0.08
110	blood administration procedures (e.g., verify compatibility, reactions, treatments)	1303	4.55	0.02	155	4.19	0.09	147	4.09	0.09	91	4.68	0.07

Knowledge Statements Subgroup Analysis: Facility

Survey Position #	Knowledge Statements	Hospital			Long-Term Care			Community-Based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
112	medications (e.g., therapeutic effects, side effects, common cross allergies, interactions) WHERE IS # 111???	1305	4.68	0.02	155	4.65	0.05	147	4.66	0.05	91	4.77	0.06
113	medication administration procedures (preparation, titration, storage)	1304	4.63	0.02	155	4.65	0.05	147	4.59	0.06	91	4.74	0.07
114	pharmacological measures to manage pain	1305	4.44	0.02	155	4.38	0.05	147	4.33	0.06	87	4.62	0.06
115	assistive devices and equipment (availability and use)	1305	3.57	0.02	155	3.80	0.06	145	3.63	0.07	89	3.66	0.09
116	generic drug names	1302	3.92	0.03	155	4.01	0.07	147	3.88	0.09	89	4.16	0.09
117	drug classifications	1304	4.22	0.02	155	4.17	0.07	146	4.14	0.07	90	4.41	0.08
118	specific medication names	1300	3.86	0.03	155	4.03	0.07	147	3.86	0.08	90	4.10	0.10
119	medication reconciliation processes	1320	3.98	0.03	160	4.09	0.07	148	3.93	0.09	93	4.03	0.10
120	moderate sedation (complications, scores, interventions)	1323	3.82	0.03	161	3.86	0.07	147	3.60	0.09	93	4.05	0.09
121	indications and contraindications of treatments/procedures	1322	4.23	0.02	161	4.34	0.05	148	4.17	0.07	93	4.39	0.07
122	effect of co-morbidities on medical condition/ disease process	1322	4.01	0.02	161	4.14	0.06	148	3.99	0.07	92	4.15	0.08
123	indications/techniques for glucose monitoring and quality control	1319	4.26	0.02	161	4.40	0.05	148	4.20	0.07	93	4.45	0.07
124	risk reduction concepts and techniques	1320	3.93	0.02	160	4.01	0.06	148	3.93	0.07	91	4.14	0.08
125	vital sign measurement, interventions related to changes	1320	4.69	0.02	161	4.65	0.04	149	4.77	0.04	93	4.75	0.05
126	tests/treatment/procedures appropriate for client needs	1318	4.13	0.02	161	4.14	0.06	148	4.11	0.06	93	4.29	0.07
127	when and how to perform focused assessments/reassessments (e.g., pain systems, disease process)	1317	4.58	0.02	161	4.51	0.05	147	4.48	0.06	93	4.62	0.06
128	peri-operative care and risk reduction strategies (e.g., embolism prophylaxis, site verification, time out process, sponge counts)	1319	4.08	0.03	160	3.91	0.09	149	3.76	0.09	93	4.15	0.10
129	intra-operative environment (e.g, sterile technique, roles and responsibilities, equipment requirements)	1316	3.70	0.03	161	3.85	0.10	149	3.61	0.10	91	3.87	0.12

Knowledge Statements Subgroup Analysis: Facility

Survey Position #	Knowledge Statements	Hospital			Long-Term Care			Community-Based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
130	process to report critical diagnostic test results	1319	4.40	0.02	161	4.54	0.05	149	4.31	0.07	92	4.36	0.09
131	how to perform diagnostic testing (e.g., electrocardiogram, O2 saturation, urine specific gravity)	1319	3.67	0.03	161	3.88	0.08	149	3.49	0.09	92	3.84	0.10
132	fetal heart rate monitoring and recognition of fetal well-being/distress	1318	3.70	0.03	160	3.65	0.10	149	3.55	0.10	92	3.91	0.13
133	specimen collection techniques (e.g., blood, wound cultures, stool, urine specimens) and equipment/supplies used	1320	4.10	0.02	161	4.26	0.06	149	4.11	0.07	93	4.19	0.08
134	hemodynamics, tissue perfusion and homeostasis principles (cerebral, cardiac, peripheral)	1321	4.35	0.02	161	4.20	0.07	149	4.18	0.07	93	4.38	0.08
135	signs/symptoms/treatments of impaired ventilation/oxygenation	1315	4.71	0.02	160	4.68	0.04	147	4.67	0.05	92	4.77	0.06
136	drainage devices and related equipment (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)	1322	4.06	0.02	161	4.17	0.06	149	3.87	0.08	93	4.12	0.08
137	safe and effective use of body temperature control devices (e.g., cooling blankets)	1323	3.69	0.03	161	3.81	0.08	149	3.52	0.09	93	3.89	0.10
138	ventilator management (e.g., suction, oxygen)	1321	3.78	0.03	161	4.02	0.08	149	3.64	0.09	92	3.93	0.11
139	nursing role during invasive procedures (e.g., central line placement)	1320	3.82	0.03	160	4.03	0.08	149	3.54	0.09	91	4.05	0.09
140	ostomy care procedures and supplies	1320	3.61	0.02	161	4.02	0.06	147	3.61	0.08	93	3.91	0.08
141	peritoneal dialysis techniques, methods, and equipment	1316	3.14	0.03	161	3.59	0.09	149	3.01	0.09	92	3.37	0.11
142	immunization schedule	1319	3.17	0.03	161	3.48	0.08	149	3.36	0.08	93	3.62	0.11
143	pulmonary hygiene techniques, methods, and equipment	1319	3.87	0.03	161	3.82	0.07	149	3.68	0.08	93	3.95	0.09
144	telemetry monitoring and interpretation of cardiac rhythms	1318	3.76	0.03	161	3.65	0.09	148	3.47	0.09	93	3.74	0.10

Knowledge Statements Subgroup Analysis: Facility

Survey Position #	Knowledge Statements	Hospital			Long-Term Care			Community-Based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
145	acute and chronic disease processes and appropriate care	1316	4.24	0.02	161	4.37	0.05	149	4.24	0.06	93	4.33	0.08
146	transcription protocol/processes (how to transcribe orders)	1318	3.81	0.03	161	4.40	0.06	149	3.89	0.09	92	4.10	0.11
147	post operative care (e.g., client response to surgery)	1317	4.25	0.02	161	3.98	0.08	149	4.00	0.08	93	4.34	0.08
148	cardiac pacing methods, techniques, and equipment	1310	3.42	0.03	160	3.61	0.09	148	3.22	0.08	93	3.57	0.11
149	principles to maintain arterial lines	1317	3.46	0.03	158	3.75	0.10	149	3.41	0.09	92	3.61	0.12
150	signs and symptoms of overhydration and dehydration	1317	4.49	0.02	161	4.56	0.05	148	4.43	0.06	93	4.61	0.06
151	wounds and wound care (e.g., products, procedures, and treatment)	1319	4.14	0.02	161	4.42	0.05	149	4.17	0.06	93	4.32	0.08
152	tracheostomy care and supplies	1317	3.87	0.03	161	4.23	0.07	149	3.83	0.08	93	4.12	0.09
153	recognizing/activating/providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	1319	4.78	0.01	160	4.76	0.04	148	4.63	0.06	93	4.82	0.05

APPENDIX L: LABORATORY VALUES SUBGROUP ANALYSIS: PRIMARY JOB TITLE

Preface: Is it important for the newly licensed RN to memorize the following lab values? *Yes*

Laboratory Values Subgroup Analysis: Primary Job Title										
Survey Position #	Laboratory Value	Newly Licensed RN			Nurse Educator			Nurse Supervisor		
		N	Percent	Std. Err.	N	Percent	Std. Err.	N	Percent	Std. Err.
1	Normal lab value for BUN (blood, urea, nitrogen)	598	81.94%	0.02	931	73.36%	0.01	269	74.72%	0.03
2	Normal lab value for arterial blood gases (pH, PO2, PCO2, SaO2, HCO3)	601	85.19%	0.01	933	75.99%	0.01	267	53.56%	0.03
3	Normal lab value for cholesterol (total)	601	39.93%	0.02	933	48.98%	0.02	262	33.21%	0.03
4	Normal lab value for glucose	603	97.51%	0.01	938	96.27%	0.01	269	92.19%	0.02
5	Normal lab value for hematocrit (Hct)	601	92.01%	0.01	936	90.71%	0.01	269	86.62%	0.02
6	Normal lab value for hemoglobin (Hgb)	601	93.68%	0.01	940	93.30%	0.01	269	88.10%	0.02
7	Normal lab value for hemoglobin A1C (HgbA1C)	600	51.17%	0.02	934	55.03%	0.02	269	52.79%	0.03
8	Normal lab value for platelets	601	82.86%	0.02	935	79.68%	0.01	269	61.71%	0.03
9	Normal lab value for potassium (K+)	603	97.18%	0.01	936	93.80%	0.01	270	89.26%	0.02
10	Normal lab value for red blood count (RBC)	598	71.57%	0.02	936	63.14%	0.02	267	59.18%	0.03
11	Normal lab value for sodium (Na+)	602	92.69%	0.01	935	84.28%	0.01	269	81.04%	0.02
12	Normal lab value for white blood count (WBC)	602	92.19%	0.01	937	90.82%	0.01	269	82.90%	0.02
13	Normal lab value for albumin (blood)	600	43.00%	0.02	930	30.97%	0.02	268	35.07%	0.03
14	Normal lab value for ALT (SGPT)	599	36.39%	0.02	933	23.58%	0.01	270	23.70%	0.03
15	Normal lab value for ammonia	600	43.17%	0.02	934	18.74%	0.01	270	26.30%	0.03
16	Normal lab value for AST (SGOT)	600	35.33%	0.02	933	23.69%	0.01	270	23.33%	0.03
17	Normal lab value for bilirubin	602	40.03%	0.02	931	30.83%	0.02	270	28.52%	0.03
18	Normal lab value for bleeding time	602	80.40%	0.02	929	49.84%	0.02	268	58.96%	0.03
19	Normal lab value for cholesterol (HDL and LDL)	596	40.27%	0.02	925	40.76%	0.02	266	30.45%	0.03
20	Normal lab value for creatinine	602	80.07%	0.02	932	63.84%	0.02	269	65.06%	0.03
21	Normal lab value for digoxin	600	78.00%	0.02	932	53.11%	0.02	268	59.33%	0.03
22	Normal lab value for ESR	602	30.73%	0.02	934	18.42%	0.01	268	18.28%	0.02
23	Normal lab value for lithium	601	51.41%	0.02	937	28.07%	0.01	268	17.16%	0.02

Laboratory Values Subgroup Analysis: Primary Job Title									
Survey Position #	Laboratory Value	Newly Licensed RN			Nurse Educator			Nurse Supervisor		
		N	Percent	Std. Err.	N	Percent	Std. Err.	N	Percent	Std. Err.
24	Normal lab value for magnesium	601	65.39%	0.02	931	35.02%	0.02	269	34.20%	0.03
25	Normal lab value for PTT and APTT	601	85.52%	0.01	933	63.34%	0.02	269	67.66%	0.03
26	Normal lab value for phosphorus/phosphate	598	31.61%	0.02	933	15.54%	0.01	268	16.42%	0.02
27	Normal lab value for protein (total)	599	34.39%	0.02	926	20.63%	0.01	268	23.13%	0.03
28	Normal lab value for prothrombin time (PT)	601	86.86%	0.01	932	65.56%	0.02	269	75.09%	0.03
29	Normal lab value for urine (alb, pH, white blood cell count [WBC] and %T lymphocytes [differential])	600	47.17%	0.02	927	39.27%	0.02	268	42.54%	0.03
30	Normal lab value for INR	601	82.86%	0.02	933	64.63%	0.02	265	81.13%	0.02

APPENDIX M: LABORATORY VALUES SUBGROUP ANALYSIS: FACILITY

Preface: Is it important for the newly licensed RN to memorize the following lab values? *Yes*

Laboratory Values Subgroup Analysis: Facility

Survey Position #	Laboratory Value	Hospital			Long term care			Community-Based Facility			Other		
		N	Percent	Std. Err.	N	Percent	Std. Err.	N	Percent	Std. Err.	N	Percent	Std. Err.
1	Normal lab value for BUN (blood, urea, nitrogen)	1309	78.00%	0.01	161	77.02%	0.03	148	62.16%	0.04	91	73.63%	0.05
2	Normal lab value for arterial blood gases (pH, PO2, PCO2, SaO2, HCO3)	1313	80.12%	0.01	160	52.50%	0.04	148	54.73%	0.04	92	81.52%	0.04
3	Normal lab value for cholesterol (total)	1311	42.72%	0.01	159	32.08%	0.04	146	52.05%	0.04	93	54.84%	0.05
4	Normal lab value for glucose	1319	96.59%	0.01	161	92.55%	0.02	148	92.57%	0.02	93	97.85%	0.02
5	Normal lab value for hematocrit (Hct)	1316	91.19%	0.01	161	84.47%	0.03	148	88.51%	0.03	93	93.55%	0.03
6	Normal lab value for hemoglobin (Hgb)	1319	93.78%	0.01	161	88.20%	0.03	148	86.49%	0.03	93	92.47%	0.03
7	Normal lab value for hemoglobin A1C (HgbA1C)	1313	51.71%	0.01	160	57.50%	0.04	148	57.43%	0.04	93	64.52%	0.05
8	Normal lab value for platelets	1319	81.35%	0.01	160	58.75%	0.04	147	65.31%	0.04	92	79.35%	0.04
9	Normal lab value for potassium (K+)	1319	95.53%	0.01	161	91.30%	0.02	148	85.81%	0.03	92	94.57%	0.02
10	Normal lab value for red blood count (RBC)	1314	64.38%	0.01	158	65.19%	0.04	148	64.19%	0.04	93	73.12%	0.05
11	Normal lab value for sodium (Na+)	1316	87.61%	0.01	161	85.09%	0.03	148	76.35%	0.04	93	89.25%	0.03
12	Normal lab value for white blood count (WBC)	1320	91.14%	0.01	160	84.38%	0.03	147	81.63%	0.03	93	93.55%	0.03
13	Normal lab value for albumin (blood)	1311	35.77%	0.01	160	36.88%	0.04	146	25.34%	0.04	92	45.65%	0.05
14	Normal lab value for ALT (SGPT)	1311	26.70%	0.01	161	31.06%	0.04	148	25.00%	0.04	93	36.56%	0.05
15	Normal lab value for ammonia	1314	27.85%	0.01	161	29.19%	0.04	147	19.05%	0.03	93	38.71%	0.05
16	Normal lab value for AST (SGOT)	1312	26.75%	0.01	161	27.95%	0.04	148	24.32%	0.04	93	37.63%	0.05

Laboratory Values Subgroup Analysis: Facility

Survey Position #	Laboratory Value	Hospital			Long term care			Community-Based Facility			Other		
		N	Percent	Std. Err.	N	Percent	Std. Err.	N	Percent	Std. Err.	N	Percent	Std. Err.
17	Normal lab value for bilirubin	1314	32.88%	0.01	161	34.16%	0.04	148	31.08%	0.04	91	41.76%	0.05
18	Normal lab value for bleeding time	1311	61.40%	0.01	160	67.50%	0.04	147	53.74%	0.04	92	58.70%	0.05
19	Normal lab value for cholesterol (HDL and LDL)	1298	37.44%	0.01	161	35.40%	0.04	148	44.59%	0.04	92	50.00%	0.05
20	Normal lab value for creatinine	1313	72.20%	0.01	161	65.84%	0.04	148	50.68%	0.04	93	65.59%	0.05
21	Normal lab value for digoxin	1310	60.92%	0.01	160	70.63%	0.04	148	59.46%	0.04	93	67.74%	0.05
22	Normal lab value for ESR	1316	21.73%	0.01	161	22.98%	0.03	147	21.77%	0.03	91	30.77%	0.05
23	Normal lab value for lithium	1316	33.05%	0.01	160	29.38%	0.04	148	36.49%	0.04	93	52.69%	0.05
24	Normal lab value for magnesium	1312	48.40%	0.01	161	30.43%	0.04	148	31.08%	0.04	91	40.66%	0.05
25	Normal lab value for PTT and APTT	1314	74.05%	0.01	160	66.25%	0.04	147	50.34%	0.04	93	73.12%	0.05
26	Normal lab value for phosphorus/phosphate	1311	21.05%	0.01	160	18.75%	0.03	147	17.69%	0.03	92	29.35%	0.05
27	Normal lab value for protein (total)	1307	24.10%	0.01	160	31.25%	0.04	146	23.29%	0.04	92	34.78%	0.05
28	Normal lab value for prothrombin time (PT)	1313	75.25%	0.01	161	73.91%	0.03	148	66.22%	0.04	92	69.57%	0.05
29	Normal lab value for urine (alb, pH, white blood cell count [WBC] and %T lymphocytes [differential])	1312	40.85%	0.01	160	55.00%	0.04	145	37.93%	0.04	91	43.96%	0.05
30	Normal lab value for INR	1315	73.69%	0.01	159	81.13%	0.03	146	61.64%	0.04	90	66.67%	0.05

APPENDIX N: KNOWLEDGE SURVEY NON-RESPONDER STUDY

Introduction

The National Council of State Boards of Nursing (NCSBN®) conducted a knowledge statement survey to assess the knowledge newly licensed nurses needed to possess for safe and effective professional practice. The purpose of the study was to inform NCLEX® item development. The overall response rate for the *2008 Knowledge of Newly Licensed Registered Nurses Survey* was more than 29%. Of the 6,350 Newly Licensed RNs, RN Educators and RN Supervisors who were invited to take the survey, 1,891 completed and returned the survey. NCSBN made the decision to contact a sample of the nurses who did not respond to the survey in order to determine if the results of the 2008 knowledge survey could be biased. If there is a systematic difference in the ratings of the knowledge statement between responders and non-responders, then the results could potentially be biased. Ruling out the potential for systematic differences among raters, supports the validity of the results. Additionally, NCSBN wanted to assess the reasons non-responders did not return the survey in order to increase response rates in future studies.

Methodology

Sample Selection

A random sample of Newly Licensed RNs, RN Educators and RN Supervisors who were invited, but did not respond to the *2008 Knowledge of Newly Licensed Registered Nurses Survey* were contacted via telephone. The sample selected for this study was proportionally equivalent to the population of non-responders.

Telephone Interview Process

Non-responders were contacted via telephone by a vendor, using telephone numbers provided by NCSBN. Initially, these non-responders were asked about their reasons for not completing the *2008 Knowledge of Newly Licensed Registered Nurses Survey*. To facilitate the gathering of data from non-responders, NCSBN developed a list of possible reasons why invitees may not have responded to the survey from prior research. These reasons included: "too busy," "did not care," "do not like/trust surveys," "did not receive it," or they were asked to provide another response. Next, in order to provide background on non-responders, individuals were asked for employment setting/specialty and length of time in their current position. In addition, responders were asked to rate 10 knowledge statements that were listed in the *2008 Knowledge of Newly Licensed Registered Nurses Survey*. Responders were thanked for their time and responses were recorded in a Microsoft Excel© 2007 spreadsheet.

Return Rates

Of the non-responders who were potential contacts, 106 individuals participated in the study: 39 Newly Licensed RNs, 29 RN Educators and 38 RN Supervisors.

Non-Responder Results

Reasons for Not Responding

In general, reasons for not responding were listed as "too busy" (53 responses or 50.0%) or "did not receive" the survey (52 responses or 49.1%). Only one individual (0.9%) provided "other" as a response. None of the participants indicated "did not care" or "do not like/trust surveys" as a reason for not returning the survey. *See Figure 1.*

Figure 1. Reasons for Not Responding
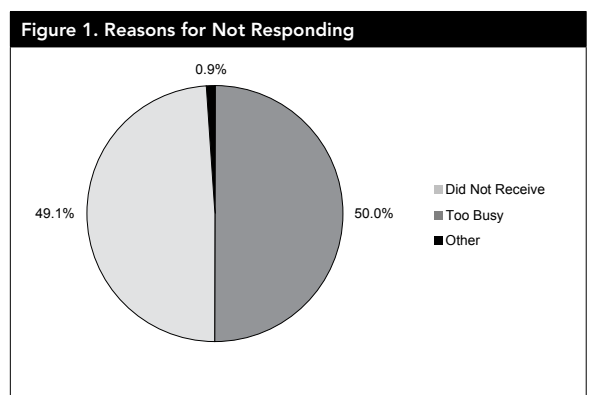
Time at Your Current Position

Responders were asked how many months they had been in their current position. Non-responders who were Newly Licensed RNs averaged 6.1 months (.5 years) at their job compared to responders, who were asked months since graduation and averaged 14.5 months (1.2 years). Non-responder supervisors spent an average of 77.2 months (6.4 years) at their job compared to responders who spent an average of 163.5 months (13.6 years). Non-responder educators spent an average of 46.6 months (3.9 years) at their position compared to responders who averaged and 176.3 months (14.7 years) at their current position. *See Figure 2.*

Figure 2. Months at Position by Job Title
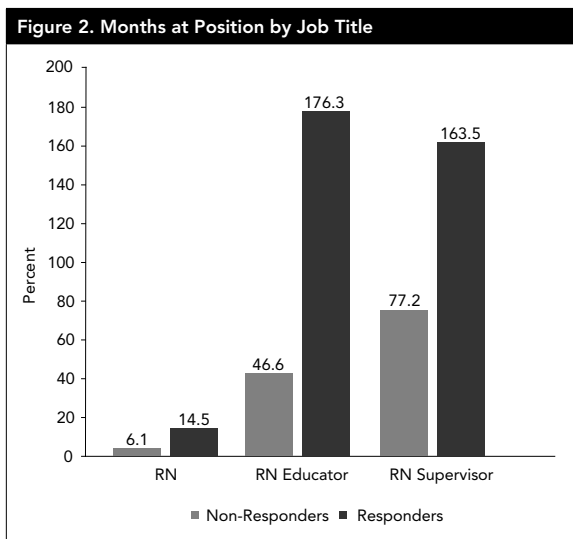
Employment Setting/Specialty

Non-responders were asked to provide their employment setting/specialty area. One non-responder did not answer this question. The different specialties were well represented in this sample. Similar to responders, the largest percentage of Newly Licensed RN non-responders listed their field as Medical-Surgical (46.2% for non-responders and 40.9% for responders). Among both non-responder and responder supervisors, nursing home was listed as the most frequent employment setting (39.6% for responders and 83.8% for non-responders). Other/student school health (96.6% or N=28) was listed as the most frequent employment setting among RN Educators in the non-responder study.

The most frequent employment setting among RN Educators in the responder study was Medical-Surgical unit (37.8%). Differences between non-responder and responder results could be due to the classification by the vendor of their setting (the vendor categorized school health for the non-responder educators while the survey responders chose their nursing specialty area). *See Tables 1 and 2.*

Importance Ratings

Importance ratings of the knowledge statements were provided by the non-responders and compared to the average rating of the same knowledge statements by survey responders. Overall, non-responders and responders had very similar ratings of knowledge statements. *See Table 3.*

Summary

This study found that the responders and non-responders rated the importance of 10 knowledge statements quite similarly. These findings suggest that there is no systematic differences in ratings between the two groups that could bias the results of the study. This lends support to the validity of the findings from the 2008 knowledge survey. Additionally, the findings suggest that individuals did not complete the study because they were either "too busy" or "did not receive the survey." Overall, these results provide important information on the validity of the 2008 knowledge survey and why individuals do not complete surveys.

Table 1. Employment Setting/Specialty for Responders and Non-Responders												
	Responders						Non-Responders					
	Newly Licensed RN		RN Educator		RN Supervisor		Newly Licensed RN		RN Educator		RN Supervisor	
Employment Setting	N	%	N	%	N	%	N	%	N	%	N	%
Critical Care	210	34.70%	150	15.90%	44	16.10%	12	30.80%	0	0.00%	0	0.00%
Medical-Surgical unit	248	40.90%	357	37.80%	70	25.60%	18	46.20%	1	3.40%	1	2.70%
Pediatrics	37	6.10%	125	13.20%	12	4.40%	1	2.60%	0	0.00%	0	0.00%
Nursery	20	3.30%	85	9.00%	3	1.10%	0	0.00%	0	0.00%	0	0.00%
Labor and Delivery	27	4.50%	130	13.80%	4	1.50%	0	0.00%	0	0.00%	0	0.00%
Postpartum Unit	23	3.80%	146	15.50%	3	1.10%	0	0.00%	0	0.00%	0	0.00%
Psychiatry	13	2.10%	211	22.40%	5	1.80%	2	5.10%	0	0.00%	0	0.00%
Operating Room	27	4.50%	13	1.40%	6	2.20%	0	0.00%	0	0.00%	0	0.00%
Nursing Home	38	6.30%	38	4.00%	108	39.60%	1	2.60%	0	0.00%	31	83.80%
Other Long-term Care	9	1.50%	4	0.40%	5	1.80%	0	0.00%	0	0.00%	3	8.10%
Rehabilitation	22	3.60%	19	2.00%	30	11.00%	0	0.00%	0	0.00%	2	5.40%
Subacute Unit	12	2.00%	13	1.40%	29	10.60%	0	0.00%	0	0.00%	0	0.00%
Transitional Care Unit	9	1.50%	10	1.10%	6	2.20%	0	0.00%	0	0.00%	0	0.00%
Phys/APRN/Dentist Office	8	1.30%	9	1.00%	2	0.70%	1	2.60%	0	0.00%	0	0.00%
Occupational Health	3	0.50%	2	0.20%	1	0.40%	0	0.00%	0	0.00%	0	0.00%
Outpatient Clinic	8	1.30%	17	1.80%	2	0.70%	1	2.60%	0	0.00%	0	0.00%
Home Health	3	0.50%	30	3.20%	42	15.40%	2	5.10%	0	0.00%	0	0.00%
Public Health	6	1.00%	42	4.40%	4	1.50%	0	0.00%	0	0.00%	0	0.00%
Hospice Care	10	1.70%	16	1.70%	12	4.40%	1	2.60%	0	0.00%	0	0.00%
Prison	2	0.30%	1	0.10%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Other*	24	34.00%	117	12.40%	19	6.90%	0	0.00%	28	96.60%	0	0.00%
*Other included responders and non-responders answering student/school health and specialties which were not listed on the survey.												

Table 2. Non-Responder Employment Setting by Primary Job Title						
Employment Setting/ Specialty	Newly Licensed RNs		RN Educators		RN Supervisors	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Critical Care	12	30.80%	0	0.00%	0	0.00%
Medical-surgical	18	46.20%	1	3.40%	1	2.70%
Pediatrics	1	2.60%	0	0.00%	0	0.00%
Nursery	0	0.00%	0	0.00%	0	0.00%
Labor and delivery	0	0.00%	0	0.00%	0	0.00%
Postpartum unit	0	0.00%	0	0.00%	0	0.00%
Psychiatry or sub-specialties	2	5.10%	0	0.00%	0	0.00%
Operating room	0	0.00%	0	0.00%	0	0.00%
Nursing home	1	2.60%	0	0.00%	31	83.80%
Other long-term care	0	0.00%	0	0.00%	3	8.10%
Rehabilitation	0	0.00%	0	0.00%	2	5.40%
Subacute unit	0	0.00%	0	0.00%	0	0.00%
Transitional care unit	0	0.00%	0	0.00%	0	0.00%
Physician/APRN/Dentist office	1	2.60%	0	0.00%	0	0.00%
Occupational health	0	0.00%	0	0.00%	0	0.00%
Outpatient clinic	1	2.60%	0	0.00%	0	0.00%
Home health	2	5.10%	0	0.00%	0	0.00%
Public health	0	0.00%	0	0.00%	0	0.00%
Hospice care	1	2.60%	0	0.00%	0	0.00%
Prison	0	0.00%	0	0.00%	0	0.00%
Other*	0	0.00%	28	96.60%	0	0.00%

*Other included responders and non-responders answering student/school health as their specialty.

Table 3. Importance Ratings for Knowledge Statements		
Knowledge Statement	Responder Rating	Non-Responder Rating
1. Client and care prioritization	4.73 (N=1,783)	4.77 (N=106)
2. Rules of delegation	4.14 (N=1,787)	4.27 (N=106)
3. Client rights and responsibilities	4.22 (N=1,777)	4.62 (N=106)
4. Trade names for medications	3.67 (N=1,776)	4.10 (N=105)
5. Ethical dilemmas for area of practice and actions to be taken (personal/societal)	3.78 (N=1,784)	4.43 (N=106)
6. Physical assessment techniques	4.65 (N=1,782)	4.73 (N=106)
7. Pain scales (identify and apply)	4.43 (N=1,783)	4.71 (N=106)
8. Vital sign measurement, interventions related to changes	4.70 (N=1,812)	4.76 (N = 105)
9. Ventilator management (e.g., suction, oxygen)	3.81 (N=1,812)	4.11 (N=106)
10. Recognizing/activating/providing care in emergencies (e.g., cardiac arrest, respiratory arrest, stroke)	4.77 (N=1,808)	4.90 (N=106)

APPENDIX O: LINKING OF KNOWLEDGE STATEMENTS AND ACTIVITY STATEMENTS

*Appendix O was developed by the SME panelists and does not reflect the final knowledge statement and categorization.

Linking of Knowledge Statements and Activity Statements
1. Management of Care
Perform procedures necessary to safely admit, transfer or discharge a client
physical assessment
comprehensive health history
community resources
communication skills/ language
teaching/learning styles
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
medication reconciliation processes
continuity of care
Include all team members when providing and receiving reports on assigned clients
scope of practice and delegation
client and care prioritization
hand-off/reporting process
comprehensive health history
Supervise/delegate/assign care provided by others within scope of practice (e.g., LPN/VN, assistive personnel)
rules of delegation
conflict resolution
leadership and management skills
comprehensive health history
scope of practice and delegation
client and care prioritization
Act as a client/family advocate
client rights and responsibilities
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
client confidentiality/privacy
advocacy resources (e.g., social worker, chain of command, translator)
Assess/triage client(s) to prioritize the order of care delivery
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
physical assessment
comprehensive health history
Participate in performance improvement/quality assurance process (e.g., collect data or participate on a team)
data collection methods (e.g., chart review, incident reports)
acceptable methods of documentation (e.g., "do not use" abbreviations)
quality indicators
Collaborate with members of interdisciplinary team when providing client care

Linking of Knowledge Statements and Activity Statements

team member roles and responsibilities

interdisciplinary resources

referral processes (how and when)

comprehensive health history

Receive and/or transcribe health care provider orders

proper abbreviation usage

order verification

order clarification

transcription protocol/process

comprehensive health history

Integrate advance directives into client's plan of care

client advance directives (present and communicated to team)

advance directive process (e.g., obtain, update, review)

Plan, implement and evaluate cost-effective care

supply and resource management

tests/treatments to match client needs

Educate client/family and staff about client's rights and responsibilities (e.g., ethical/legal issues)

communication skills/ language

teaching/learning styles

client rights and responsibilities

Initiate, evaluate, and update plan of care, care map, clinical pathway

disease processes and appropriate care

interdisciplinary team inclusion

physical assessment

comprehensive health history

Assist client and family to access resources regarding genetic issues

available genetic resources

Maintain client confidentiality/privacy

nursing code of ethics

communication skills/ language

regulatory requirements (e.g., HIPAA, EMTALA, JCAHO, CMS)

client rights and responsibilities

Comply with state and/or federal regulations for reporting client conditions (e.g., abuse/neglect, communicable disease, gunshot wound, dog bite)

required reporting process

required reporting elements (e.g., abuse/neglect, communicable disease, gunshot wound, dog bite)

Use information technology (e.g., computer, video, books) to enhance the care provided to a client

educational tools available

teaching/learning styles

client confidentiality/privacy

Integrate cultural data when providing care

alternatives to traditional therapies related to diversity needs

communication skills/ language

client/family cultural diversity (e.g., religion, ethnicity)

Linking of Knowledge Statements and Activity Statements
Use critical thinking skills to interpret what client signs and symptoms needs to be followed up immediately
client and care prioritization
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
Recognize the need for referrals and obtain necessary orders
physical assessment
comprehensive health history
interdisciplinary resources
referral processes (how and when)
Recognize tasks/assignments you are not prepared to perform and seek assistance
personal/professional limitations
scope of practice
staff resources (e.g., chain of command, charge nurse)
Verify client/family comprehends and consents to care/procedures, including procedures requiring informed consent
informed consent process
procedures requiring consent (e.g., informed consent, implied consent)
teaching/learning styles
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
advocacy resources (e.g., social worker, chain of command, translator)
Manage conflict among clients/staff
conflict management principles
communication skills/ language
client and care prioritization
team member roles and responsibilities
personal/professional limitations
staff resources (e.g., chain of command, charge nurse)
Recognize ethical dilemmas and take appropriate action
ethical dilemmas for area of practice (personal/societal)
actions to be taken for ethical dilemmas
Nursing Code of Ethics
staff resources (e.g., chain of command, charge nurse)
Use self-evaluation, peer evaluation, and feedback to modify and improve practice
communication skills/ language
educational tools available
personal/professional limitations
Participate in educational activities to maintain/improve professional knowledge and skills of self and others
continuing education requirements
educational resources available
incorporate evidence-based practice/research results when providing care
evidence-based practice resources (e.g., journals, research, best practices)
communication skills/ language
Assign or delegate aspects of care within scope of practice
communication skills/ language

Linking of Knowledge Statements and Activity Statements
scope of practice and delegation
client and care prioritization
rules of delegation
conflict resolution
leadership and management skills

Use approved abbreviations and standard terminology when documenting care

nursing/medical terminology
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
acceptable methods of documentation (e.g., "do not use" abbreviations)
proper abbreviation usage

Provide individualized/client-centered care consistent with standards of practice (e.g., negligence, malpractice, false imprisonment)

scope of practice

Prioritize workload to manage time effectively

time management techniques
scope of practice and delegation
client and care prioritization
rules of delegation
supply and resource management

Recognize trends and changes in client condition and intervene appropriately

nursing interventions
physical assessment
comprehensive health history
communication skills/ language
client and care prioritization
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms

Incorporate ethical principles in all aspects of client care

leadership and management skills
client rights and responsibilities

Use emerging technology in managing client health (e.g., telehealth)

technology (e.g., remote monitoring devices)
physical assessment
comprehensive health history
communication skills/ language
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
normal assessment parameters (e.g., labs, vitals, physical assessment)
scope of practice

2. Safety and Infection Control

Report unsafe practice of health care personnel to internal/external entities (e.g., emotional or physical impairment, substance abuse, improper care, staffing practices)

standards of practice
unsafe practice reporting process
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)

Linking of Knowledge Statements and Activity Statements
staff resources (e.g., chain of command, charge nurse)
Apply principles of infection control (e.g., hand hygiene, room assignment, isolation, aseptic/sterile technique, universal/standard precautions)
infection control principles
supply and resource management
Protect client from injury (e.g., falls, electrical hazards)
potential hazards
risk reduction concepts and techniques
risk assessment tools
Verify appropriateness and/or accuracy of a treatment order
communication skills/ language
proper abbreviation usage
order verification
order clarification
disease processes and appropriate care
Follow procedures for handling biohazardous materials
biohazardous materials
biohazardous resources available [e.g., OSHA, Material Safety Data Sheet (MSDS)]
handling and disposal of biohazardous materials
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
Participate in the institution's security plan (e.g., newborn nursery security, bomb threats)
security plan
role in response to security alert
Use ergonomic principles when providing care (e.g., assistive devices, proper lifting)
ergonomic principles
assistive devices and equipment
Ensure proper identification of client when providing care
specific identification procedures
Facilitate appropriate and safe use of equipment
intended purpose and function of equipment
trouble shooting procedures
client or staff education
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
supply and resource management
Educate client/family on home safety issues
communication skills/ language
teaching/learning styles
risk reduction concepts and techniques
risk assessment tools
client or staff education
Implement emergency response plans (e.g., internal/external disaster)
emergency response plan
role in response to emergency
Comply with federal/state/institutional policy regarding the use of client restraints and/or safety devices

Linking of Knowledge Statements and Activity Statements
types of restraints
safe application and monitoring of restraints
communication skills/ language
Educate client/family/staff regarding infection control measures
communication skills/ language
teaching/learning styles
infection control principles
client or staff education
Assess for client allergies and intervene as needed (e.g., food, latex and other environmental allergies)
signs and symptoms of an allergic reaction
interventions for allergic reactions
common cross allergies
physical assessment
comprehensive health history
supply and resource management
Recognize and report symptom clusters across clients (e.g., food poisoning, anthrax)
signs and symptoms of communicable diseases
physical assessment
comprehensive health history
communication skills/ language
required reporting process
Participate in medication reconciliation processes/procedures per protocol
medication reconciliation processes
order verification
order clarification
Locate and maintain emergency response equipment (e.g., crash cart)
location of emergency response equipment
maintenance of emergency response equipment
3. Health Promotion and Maintenance
Provide pre-natal care and education
female reproductive system and pregnancy
signs and symptoms of prenatal complications
effect of co-morbidities
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
Plan and/or participate in the education of individuals in the community (e.g., health fairs, school education)
community needs assessment tools
community resources
communication skills/ language

Linking of Knowledge Statements and Activity Statements
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
educational tools available
Provide intrapartum care and education (e.g., care provided during labor and birth)
labor process
fetal monitoring techniques
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
effect of co-morbidities
Provide care and education that meets the special needs of the newborn client, ages 0 to 1 month
normal newborn transition process
immunization schedule
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
Provide care and education that meets the special needs of the infant client, 1 month to 1 year
normal growth and development
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
immunization schedule
Provide care and education that meets the special needs of the preschool client, ages 1 year to 4 years
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options

Linking of Knowledge Statements and Activity Statements
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
immunization schedule
normal growth and development
Provide care and education that meets the special needs of the school age client, ages 5 to 12 years
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
immunization schedule
normal growth and development
Provide care and education that meets the special needs of the adolescent client, ages 13 to 18 years
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
immunization schedule
normal growth and development
Provide care and education that meets the special needs of the adult client, ages 19 to 64 years
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
immunization schedule
normal growth and development
Provide care and education that meets the special needs of the adult client, ages 65 to 85 years
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options

Linking of Knowledge Statements and Activity Statements
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
immunization schedule
normal growth and development
Provide care and education that meets the special needs of the adult, over 85 years
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
immunization schedule
normal growth and development
Perform targeted screening examinations (e.g., scoliosis, vision and hearing assessments, skin cancer screening)
targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments, skin cancer screening)
communication skills/ language
client/family cultural diversity (e.g., religion, ethnicity)
normal growth and development
Provide information for prevention of high risk health behaviors (e.g., smoking cessation, safe sexual practice, drug education)
high risk behaviors
community resources
communication skills/ language
regulatory Requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
client/family cultural diversity (e.g., religion, ethnicity)
educational tools available
educational resources available
normal growth and development
Provide information about healthy behaviors and health promotion/maintenance recommendations (e.g., physician visits, immunizations, breast self exams)
healthy behaviors and health maintenance recommendations
common barriers to routine health care
communication skills/ language
normal growth and development
targeted screening assessment tools/techniques (e.g., scoliosis, vision and hearing assessments,
skin cancer screening)
high risk behaviors
Provide post-partum care and education
post-partum physiology and care
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles

Linking of Knowledge Statements and Activity Statements

client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
effect of co-morbidities
immunization schedule
normal growth and development

Perform comprehensive health assessment (e.g., physical, psychosocial and health history)

physical assessment
comprehensive health history
communication skills/ language
client/family cultural diversity (e.g., religion, ethnicity)
normal growth and development

Provide education on age specific growth and development to clients and family

communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
educational tools available
educational resources available
normal growth and development

Assess client/family readiness to learn, learning preferences and barriers to learning

client learning assessment tools
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)

Assist client/family to cope with life transitions (e.g., adoption, maternal infant bonding)

coping strategies
life transitions
community resources
communication skills/ language
client/family cultural diversity (e.g., religion, ethnicity)
advocacy resources (e.g., social worker, chain of command, translator)
normal growth and development

Assess client and teach about health risks based on known population or community characteristics

population or community health risk factors
physical assessment
comprehensive health history
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
educational tools available
educational resources available

4. Psychosocial Integrity
Assess psychosocial, spiritual and occupational factors affecting care

Linking of Knowledge Statements and Activity Statements
comprehensive health history
communication skills/ language
client/family cultural diversity (e.g., religion, ethnicity)
normal growth and development
population or community health risk factors
Assess client for potential or actual abuse/neglect and intervene when appropriate
potential signs and symptoms of abuse/neglect
counseling and therapeutic techniques
treatment of client with abuse/neglect
advocacy resources (e.g., social worker, chain of command, translator)
physical assessment
comprehensive health history
community resources
communication skills/ language
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
client rights and responsibilities
client/family cultural diversity (e.g., religion, ethnicity)
client confidentiality/privacy
referral processes (how and when)
required reporting process
required reporting elements (e.g., abuse/neglect, communicable disease, gun shot wound, dog bite)
risk assessment tools
coping strategies
advocacy resources (e.g., social worker, chain of command, translator)
Assess client for drug/alcohol related dependencies, withdrawal, or toxicities and intervene when appropriate
components of a therapeutic environment
signs and symptoms of toxicity, dependency, and withdrawal
drug and alcohol related treatment plans
physical assessment
comprehensive health history
community resources
communication skills/ language
client confidentiality/privacy
referral processes (how and when)
risk assessment tools
high risk behaviors
common barriers to routine health care
normal growth and development
Provide care and education for acute and chronic mental health issues (e.g., anxiety, depression, dementia, eating disorders)
communication skills/ language
teaching/learning styles
routine care and treatment options
client confidentiality/privacy
disease processes and appropriate care

Linking of Knowledge Statements and Activity Statements

educational tools available
conflict management principles
educational resources available
risk reduction concepts and techniques
risk assessment tools
high risk behaviors
components of a therapeutic environment
Provide a therapeutic environment for clients
matching therapeutic environment to client needs
disease processes
team member roles and responsibilities
interdisciplinary resources
types of restraints
safe application and monitoring of restraints
components of a therapeutic environment
Provide end of life care and education to clients and families
stages of death and dying
grief process
communication skills/ language
client rights and responsibilities
client/family cultural diversity (e.g., religion, ethnicity)
referral processes (how and when)
client advance directives (present and communicated to team)
advance directive process (e.g., obtain, update, review)
personal/professional limitations
ethical dilemmas for area of practice (personal/societal)
nursing interventions
normal growth and development
coping strategies
counseling and therapeutic techniques
Facilitate group sessions
group dynamics
communication skills/ language
teaching/learning styles
conflict resolution
leadership and management skills
client confidentiality/privacy
conflict management principles
ethical dilemmas for area of practice (personal/societal)
Assess the potential for violence and initiate/maintain safety precautions (e.g., suicide, homicide, self-destructive behavior)
cycle of violence
safety precautions for violent behaviors
comprehensive health history
community resources

Linking of Knowledge Statements and Activity Statements
communication skills/ language
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
interdisciplinary resources
referral processes (how and when)
conflict management principles
risk reduction concepts and techniques
risk assessment tools
safe application and monitoring of restraints
high risk behaviors
coping strategies
Assess family dynamics in order to determine plan of care (e.g., structure, bonding, communication, boundaries, coping mechanisms)
diversity of family structures and functions
comprehensive health history
communication skills/ language
client rights and responsibilities
client/family cultural diversity (e.g., religion, ethnicity)
advocacy resources (e.g., social worker, chain of command, translator)
referral processes (how and when)
normal growth and development
coping strategies
population or community health risk factors
group dynamics
Provide care and/or support for a client with non-substance related dependencies (e.g., gambling, sexual addiction, pornography)
signs and symptoms of addictive behaviors
behavioral management techniques (e.g., positive reinforcement, setting limits)
communication skills/ language
interdisciplinary team inclusion
nursing interventions
normal growth and development
components of a therapeutic environment
Recognize non-verbal cues to physical and/or psychological stressors
psychological stressors
physical assessment
comprehensive health history
communication skills/ language
client/family cultural diversity (e.g., religion, ethnicity)
Recognize impact of illness/disease on individual/family lifestyle
signs and symptoms of caregiver burnout
conflict resolution
client/family cultural diversity (e.g., religion, ethnicity)
disease processes
ethical dilemmas for area of practice (personal/societal)
coping strategies
group dynamics

Linking of Knowledge Statements and Activity Statements
diversity of family structures and functions
Address client needs based on visual, auditory, or cognitive distortions (e.g. hallucinations)
intervention techniques for clients with hallucinations
advocacy resources (e.g., social worker, chain of command, translator)
critical signs and symptoms
interdisciplinary resources
referral processes (how and when)
disease processes and appropriate care
coping strategies
Provide support to client and/or family in coping with life changes (e.g. loss, new diagnosis, role changes)
life transitions
communication skills/ language
client/family cultural diversity (e.g., religion, ethnicity)
normal growth and development
coping strategies
counseling and therapeutic techniques
grief process
Integrate cultural data when providing care
communication skills/ language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
educational tools available
alternatives to traditional therapies related to diversity needs
common barriers to routine health care
Establish and maintain a therapeutic relationship with client
communication skills/language
counseling and therapeutic techniques
components of a therapeutic environment
5. Basic Care and Comfort
Evaluate and monitor client intake and output
components of intake and output
metric conversions
application of basic mathematical calculations
signs and symptoms of overhydration and dehydration
physical assessment
comprehensive health history
normal assessment parameters (e.g., labs, vitals, physical assessment)
disease processes and appropriate care
Evaluate and monitor client's height and weight
physical assessment
rules of delegation
normal assessment parameters (e.g., labs, vitals, physical assessment)
intended purpose and function of equipment
normal growth and development

Linking of Knowledge Statements and Activity Statements
Provide client nutrition through continuous or intermittent tube feedings
tube feeding administration and maintenance
recognition and prevention of tube feeding complications
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
client advance directives (present and communicated to team)
scope of practice
potential hazards
risk reduction concepts and techniques
intended purpose and function of equipment
Perform post-mortem care
post-mortem care
organ donation and tissue care
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
client/family cultural diversity (e.g., religion, ethnicity)
team member roles and responsibilities
personal/professional limitations
Perform irrigations (e.g., of bladder, ear, eye)
irrigation procedures
indications and contraindications of treatments/procedures
routine care and treatment options
infection control principles
potential hazards
intended purpose and function of equipment
Incorporate alternative/complementary therapies into client's plan of care (e.g., music/relaxation techniques)
alternative/complimentary therapies (e.g., music/relaxation techniques)
client/family cultural diversity (e.g., religion, ethnicity)
interdisciplinary resources
referral processes (how and when)
alternatives to traditional therapies related to diversity needs
personal/professional limitations
scope of practice
evidence-based practice resources (e.g., journals, research, best practices)
Assist client to compensate for a physical and/or sensory impairment (e.g., assistive devices, range of motion, positioning, compensatory techniques)
alternative forms of communication for clients with a communication impairment
community resources
communication skills/ language
advocacy resources (e.g., social worker, chain of command, translator)
interdisciplinary resources
referral processes (how and when)
assistive devices and equipment
common barriers to routine health care
coping strategies
Insert, maintain, and remove nasogastric, urethral catheter or other tubes

Linking of Knowledge Statements and Activity Statements
insertion, maintenance, and removal process for tubes and catheters
relevant anatomy and physiology
communication skills/ language
client rights and responsibilities
scope of practice
infection control principles
trouble shooting procedures
client or staff education
indications and contraindications of treatments/procedures
Apply, maintain or remove orthopedic devices (e.g., traction, splints, braces)
orthopedic devices and their use (e.g., traction, splints, braces)
disease processes
infection control principles
ergonomic principles
assistive devices and equipment
intended purpose and function of equipment
trouble shooting procedures
client or staff education
normal growth and development
indications and contraindications of treatments/procedures
relevant anatomy and physiology
Apply and maintain devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)
application and maintenance of devices used to promote circulation (e.g., anti-embolic stockings, sequential compression devices)
disease processes
client or staff education
relevant anatomy and physiology
Assess client's need for pain management and intervene as needed using non-pharmacological comfort measures
pain scales
non-pharmacological comfort measures
physical assessment
comprehensive health history
communication skills/ language
client rights and responsibilities
client/family cultural diversity (e.g., religion, ethnicity)
alternatives to traditional therapies related to diversity needs
alternative/complimentary therapies (e.g., music/relaxation techniques)
alternative forms of communication for clients with a communication impairment
Manage the client who has an alteration in nutritional intake (e.g., adjust diet, change delivery to include method, time and food preferences)
signs and symptoms of alterations in nutritional status
physical assessment
comprehensive health history
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
Interdisciplinary resources

Linking of Knowledge Statements and Activity Statements
referral processes (how and when)
alternatives to traditional therapies related to diversity needs
Assess client need for sleep/rest and intervene as needed
interventions to promote sleep/rest
physical assessment
comprehensive health history
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
risk assessment tools
coping strategies
Provide therapies for comfort and treatment of inflammation or swelling (e.g., apply heat and cold treatments, elevate limb)
inflammatory process
treatment of inflammatory process
routine care and treatment options
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
indications and contraindications of treatments/procedures
relevant anatomy and physiology
non-pharmacological comfort measures
intended purpose and function of equipment
Assess and manage client with an alteration in elimination (e.g., bowel, renal, ostomy care)
signs and symptoms of altered elimination (e.g., bowel, renal, ostomy care)
urinary and bowel diversion procedures
body image disturbance and appropriate interventions
physical assessment
comprehensive health history
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
interdisciplinary resources
risk reduction concepts and techniques
intended purpose and function of equipment
trouble shooting procedures
client or staff education
coping strategies
grief process
components of intake and output
signs and symptoms of overhydration and dehydration
relevant anatomy and physiology
Manage clients with alteration in hemodynamics, tissue perfusion and hemostasis (e.g., cerebral, cardiac, peripheral)
hemodynamics, tissue perfusion and hemostasis principles
physical assessment
comprehensive health history
disease processes

Linking of Knowledge Statements and Activity Statements
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
tests/treatments to match client needs
risk reduction concepts and techniques
relevant anatomy and physiology
risk assessment tools
Perform skin assessment and implement measures to maintain skin integrity and prevent skin breakdown (e.g., turning, re-positioning, pressure-relieving support surfaces)
measures to maintain skin integrity
diet and nutritional needs relative to disease process
physical assessment
comprehensive health history
normal assessment parameters (e.g., labs, vitals, physical assessment)
team member roles and responsibilities
interdisciplinary resources
tests/treatments to match client needs
disease processes and appropriate care
required reporting elements (e.g., abuse/neglect, communicable disease, gun shot wound, dog bite)
nursing interventions
infection control principles
risk assessment tools
ergonomic principles
assistive devices and equipment
intended purpose and function of equipment
Assess and intervene in client's performance of activities of daily living (ADL) and instrumental activities of daily living (IADL)
components of activities of daily living (ADL) and instrumental activities of daily living (IADL)
physical assessment
comprehensive health history
community resources
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
normal assessment parameters (e.g., labs, vitals, physical assessment)
interdisciplinary resources
referral processes (how and when)
disease processes and appropriate care
risk assessment tools
ergonomic principles
assistive devices and equipment
intended purpose and function of equipment
client or staff education
normal growth and development
coping strategies
Perform glucose monitoring and verify quality controls
indications for glucose monitoring

Linking of Knowledge Statements and Activity Statements
glucose monitoring and quality control techniques
communication skills/ language
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
data collection methods (e.g., chart review, incident reports)
intended purpose and function of equipment
infection control principles
trouble shooting procedures
Manage the client with impaired ventilation/oxygenation
signs and symptoms of impaired ventilation/oxygenation
oxygen delivery systems
physical assessment
comprehensive health history
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
interdisciplinary team Inclusion
intended purpose and function of equipment
trouble shooting procedures
indications and contraindications of treatments/procedures
relevant anatomy and physiology
routine care and treatment options
Monitor and maintain devices and equipment used for drainage (e.g., surgical wound drains, chest tube suction, urethral bladder catheter, negative pressure wound therapy)
drainage devices and related equipment (e.g., surgical wound drains, chest tube suction, urethral
bladder catheter, negative pressure wound therapy)
communication skills/ language
client rights and responsibilities
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
scope of practice
infection control principles
trouble shooting procedures
client or staff education
components of intake and output
indications and contraindications of treatments/procedures
insertion, maintenance, and removal process for tubes and catheters
relevant anatomy and physiology
Maintain desired temperature of client (e.g., cooling and/or warming blanket)
safe and effective use of temperature control devices
physical assessment
comprehensive health history

Linking of Knowledge Statements and Activity Statements
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
disease processes and appropriate care
intended purpose and function of equipment
trouble shooting procedures
normal growth and development
relevant anatomy and physiology
Perform wound care
types and staging of wounds
stages of wound healing
wound care products, procedures, and treatment options
physical assessment
comprehensive health history
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
interdisciplinary resources
evidence-based practice resources (e.g., journals, research, best practices)
infection control principles
effect of co-morbidities
relevant anatomy and physiology
Provide care for emergency conditions (e.g., cardio-pulmonary resuscitation, respiratory support, automated external defibrillator)
conditions requiring emergency intervention (e.g., cardiac arrest, respiratory arrest, stroke)
activating emergency response system
provision of emergency care (e.g., cardio-pulmonary resuscitation, respiratory support, automated external defibrillator)
physical assessment
comprehensive health history
critical signs and symptoms
client advance directives (present and communicated to team)
scope of practice
ethical dilemmas for area of practice (personal/societal)
intended purpose and function of equipment
trouble shooting procedures
role in response to emergency
signs and symptoms of an allergic reaction
location of emergency response equipment
maintenance of emergency response equipment
signs and symptoms of impaired ventilation/oxygenation
6. Pharmacological and Parenteral Therapies
Evaluate appropriateness/accuracy of medication order for client per institution policy including reconciling orders
comprehensive health history
medication reconciliation processes
order verification
order clarification

Linking of Knowledge Statements and Activity Statements
transcription protocol/process
disease processes and appropriate care
educational tools available
indications and contraindications of treatments/procedures
Perform calculations needed for medication administration
metric conversions
application of basic mathematical calculations
Monitor and maintain infusion site(s)
infusion site maintenance
complications of infusion therapy and management
physical assessment
critical signs and symptoms
infection control principles
normal growth and development
indications and contraindications of treatments/procedures
Insert, maintain, and remove a peripheral intravenous line
insertion techniques and necessary equipment needed for peripheral intravenous lines
physical assessment
scope of practice and delegation
critical signs and symptoms
scope of practice
infection control principles
normal growth and development
indications and contraindications of treatments/procedures
insertion, maintenance, and removal process for tubes and catheters
relevant anatomy and physiology
Comply with regulations governing controlled substances, (e.g., counting narcotics, wasting narcotics)
proper handling and disposal of controlled substances (e.g., counting narcotics, wasting narcotics)
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
required reporting process
scope of practice
Monitor epidural infusion
epidural anesthesia principles and care
physical assessment
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
scope of practice
relevant anatomy and physiology
pain scales
conditions requiring emergency intervention (e.g., cardiac arrest, respiratory arrest, stroke)
Review pertinent data prior to medication administration (e.g., vital signs, lab results, allergies, potential interactions)
rights of medication administration
medication interactions

Linking of Knowledge Statements and Activity Statements
physical assessment
comprehensive health history
medication reconciliation processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
order verification
tests/treatments to match client needs
educational tools available
scope of practice
specific identification procedures
interventions for allergic reactions
common cross allergies
Titrate dosage of medication based on assessment and ordered parameters (e.g., giving insulin according to blood glucose levels, titrating medication to maintain a specific blood pressure)
medication titration (how, when, why)
indications/contraindications for titration of medication
physical assessment
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
order verification
disease processes and appropriate care
scope of practice
application of basic mathematical calculations
Administer parenteral nutrition and evaluate client's response (e.g., TPN)
parenteral nutrition administration methods and maintenance
normal assessment parameters (e.g., labs, vitals, physical assessment)
interdisciplinary resources
order verification
infection control principles
metric conversions
application of basic mathematical calculations
diet and nutritional needs relative to disease process
glucose monitoring and quality control techniques
medication interactions
Administer blood and blood products and evaluate client response
blood administration process (e.g., type, compatibility)
blood transfusion reaction and treatments
physical assessment
comprehensive health history
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
client/family cultural diversity (e.g., religion, ethnicity)
critical signs and symptoms
alternatives to traditional therapies related to diversity needs
informed consent process
procedures requiring consent (e.g., informed consent implied consent)

Linking of Knowledge Statements and Activity Statements
ethical dilemmas for area of practice (personal/societal)
handling and disposal of biohazardous materials
intended purpose and function of equipment
trouble shooting procedures
signs and symptoms of overhydration and dehydration
irrigation procedures
infusion site maintenance
complications of infusion therapy and management
indications and contraindications of treatments/procedures
Access and maintain central venous access devices, including tunneled, implanted, and central lines
central venous access devices, including tunneled, implanted, and central lines
techniques used to access and maintain central venous access devices
physical assessment
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
scope of practice
infection control principles
infusion site maintenance
Educate client/family about medications
medications (e.g., therapeutic effects, side effects)
communication skills/ language
teaching/learning styles
medication reconciliation processes
client/family cultural diversity (e.g., religion, ethnicity)
routine care and treatment options
educational tools available
educational resources available
client or staff education
common cross allergies
female reproductive system and pregnancy
normal growth and development
medication interactions
Prepare and administer medications, using rights of medication administration
medication preparation and administration techniques
storage requirements for medication
infection control principles
intended purpose and function of equipment
trouble shooting procedures
normal growth and development
rights of medication administration
medication interactions
Manage client post-procedure with moderate sedation
signs/symptoms of complications of moderate sedation
sedation scores and appropriate interventions

Linking of Knowledge Statements and Activity Statements
physical assessment
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
team member roles and responsibilities
scope of practice
risk reduction concepts and techniques
pain scales
signs and symptoms of impaired ventilation/oxygenation
conditions requiring emergency intervention (e.g., cardiac arrest, respiratory arrest, stroke)
Evaluate therapeutic effects of medications
therapeutic effects of medication
physical assessment
normal assessment parameters (e.g., labs, vitals, physical assessment)
medication interactions
medications (e.g., therapeutic effects, side effects)
Assess client need for pain management and intervene as needed using pharmacological comfort measures
pharmacological measures to manage pain
physical assessment
comprehensive health history
client/family cultural diversity (e.g., religion, ethnicity)
intended purpose and function of equipment
trouble shooting procedures
normal growth and development
pain scales
therapeutic effects of medication
normal assessment parameters (e.g., labs, vitals, physical assessment)
Manage client experiencing side effects and reactions of medication
side effects and reactions to medication
treatment of medication reactions
physical assessment
comprehensive health history
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
client or staff education
signs and symptoms of an allergic reaction
common cross allergies
interventions for allergic reactions
conditions requiring emergency intervention (e.g., cardiac arrest, respiratory arrest, stroke)
medication interactions
7. Reduction of Risk Potential
Assess and respond to changes in client vital signs
vital sign measurement techniques and equipment
nursing interventions related to vital sign changes

Linking of Knowledge Statements and Activity Statements
physical assessment
comprehensive health history
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
intended purpose and function of equipment
trouble shooting procedures
normal growth and development
hemodynamics, tissue perfusion and hemostasis principles
conditions requiring emergency intervention (e.g., cardiac arrest, respiratory arrest, stroke)
activating emergency response system
Perform focused assessment and re-assessment (e.g., gastrointestinal, respiratory, cardiac)
when and how to perform focused assessments / reassessments (e.g., pain, systems, disease process)
physical assessment
comprehensive health history
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
Provide preoperative care
preoperative care & risk reduction strategies (e.g., VTE prophylaxis, site verification)
physical assessment
comprehensive health history
communication skills/language
teaching/learning styles
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
hand-off/reporting process
client/family cultural diversity (e.g., religion, ethnicity)
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
team member roles and responsibilities
tests/treatments to match client needs
disease processes and Appropriate Care
educational tools available
informed consent process
procedures requiring consent (e.g., informed consent, implied consent)
infection control principles
potential hazards
risk reduction concepts and techniques
risk assessment tools
specific identification procedures
Provide post operative care
postoperative care & risk reduction strategies (e.g., VTE prophylaxis, coughing, deep breathing)
physical assessment
comprehensive health history

Linking of Knowledge Statements and Activity Statements
communication skills/language
teaching/learning styles
regulatory Requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
hand-off/reporting process
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
team member roles and responsibilities
tests/treatments to match client needs
disease processes and appropriate care
educational tools available
informed consent process
procedures requiring consent (e.g., informed consent, implied consent)
infection control principles
risk reduction concepts and techniques
risk assessment tools
specific identification procedures
client/family cultural diversity (e.g., religion, ethnicity)
when and how to perform focused assessments / reassessments (e.g., pain, systems, disease process)
potential hazards
Provide intra-operative care (e.g., positioning, operative assessment)
intra-operative care & risk reduction strategies (e.g., time out process, sponge counts)
intra-operative environment (e.g., sterile technique, roles and responsibilities, equipment requirements)
communication skills/language
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
routine care and treatment options
critical signs and symptoms
intended purpose and function of equipment
safe and effective use of temperature control devices
conditions requiring emergency intervention (e.g., cardiac arrest, respiratory arrest, stroke)
Evaluate the results of diagnostic testing and intervene as needed
process to report critical diagnostic test results
communication skills/language
regulatory Requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
normal growth and development
Perform diagnostic testing (e.g., electrocardiogram, gastric pH, urine specific gravity)
how to perform diagnostic testing (e.g., electrocardiogram, gastric pH, urine specific gravity)
scope of practice
intended purpose and function of equipment
trouble shooting procedures
Evaluate responses to procedures and treatments (e.g., hemodialysis)
responses (anticipated/unanticipated) to procedures and treatments

Linking of Knowledge Statements and Activity Statements
physical assessment
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
Provide pre and/or postoperative education
communication skills/language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
client or staff education
normal growth and development
client learning assessment tools
preoperative care & risk reduction strategies (e.g., VTE prophylaxis, site verification)
postoperative care & risk reduction strategies (e.g., VTE prophylaxis, coughing, deep breathing)
Perform fetal heart rate monitoring and assess for fetal distress
fetal heart rate monitoring and recognition of fetal distress
intended purpose and function of equipment
trouble shooting procedures
labor process
fetal monitoring techniques
conditions requiring emergency intervention (e.g., cardiac arrest, respiratory arrest, stroke)
Educate client and family about home management of care (e.g., tracheostomy and ostomy)
home safety evaluations
community resources
communication skills/language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
referral processes (how and when)
disease processes and Appropriate Care
educational tools available
risk assessment tools
client or staff education
normal growth and development
irrigation procedures
insertion, maintain, and remove nasogastric, urethral catheter or other tubes
relevant anatomy and physiology
Evaluate invasive monitoring data (e.g., pulmonary arterial pressure, intracranial pressure)
invasive monitoring parameters
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
Interdisciplinary resources
hemodynamics, tissue perfusion and hemostasis principles
Obtain blood specimens peripherally or through central line
blood specimen collection techniques
equipment/supplies used for obtaining blood specimens

Linking of Knowledge Statements and Activity Statements
infection control principles
handling and disposal of biohazardous materials

Use precautions to prevent client injury when moving or positioning (e.g., log-rolling, abduction pillow)

proper techniques used for moving or positioning a client
physical assessment
potential hazards
risk reduction concepts and techniques
ergonomic principles
assistive devices and equipment

Educate client and family about treatments and procedures

treatments/procedures related to client condition
communication skills/language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
client or staff education
normal growth and development
client learning assessment tools

Obtain specimens other than blood for diagnostic testing (e.g., wound cultures, stool, urine specimens)

specimen collection techniques (e.g., wound cultures, stool, urine specimens)
equipment/supplies used for obtaining specimens
infection control principles
handling and disposal of biohazardous materials

Evaluate occupational/environmental exposures (e.g., lead, asbestos)

occupational/environmental exposures (e.g., lead, asbestos)
physical assessment
comprehensive health history
regulatory requirements (e.g., HIPAA, EMTALA, Joint Commission, CMS)
normal assessment parameters (e.g., labs, vitals, physical assessment)
biohazardous resources available (e.g., OSHA, Materials Safety Data Sheet [MSDS])
emergency response plan
role in response to emergency
population or community health risk factors

8. Physiological Adaptation

Monitor and maintain clients on a ventilator

ventilator management (e.g., suction, oxygen)
physical assessment
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
disease processes and appropriate care
infection control principles
intended purpose and function of equipment
trouble shooting procedures
role in response to emergency
signs and symptoms of impaired ventilation/oxygenation

Linking of Knowledge Statements and Activity Statements
oxygen delivery systems
conditions requiring emergency intervention (e.g., cardiac arrest, respiratory arrest, stroke)
Perform or assist with wound care (e.g., dressing change, debridement)
physical assessment
comprehensive health history
routine care and treatment options
normal assessment parameters (e.g., labs, vitals, physical assessment)
interdisciplinary resources
evidenced-based practice resources (e.g., journals, research, best practices)
infection control principles
effect of co-morbidities
relevant anatomy and physiology
types and staging of wounds
stages of wound healing
wound care products, procedures, and treatment options
Assist with invasive procedures (e.g., central line placement)
nursing role during invasive procedures (e.g., central line placement)
team member roles and responsibilities
scope of practice
procedures requiring consent (e.g., informed consent, implied consent)
infection control principles
intended purpose and function of equipment
Perform oral or nasopharyngeal suctioning
suctioning techniques, methods and equipment
infection control principles
normal growth and development
indications and contraindications of treatments/procedures
relevant anatomy and physiology
signs and symptoms of impaired ventilation/oxygenation
when and how to perform focused assessments / reassessments (e.g., pain, systems, disease process)
Provide ostomy care
ostomy care procedures and supplies
infection control principles
signs and symptoms of altered elimination (e.g., bowel, renal, ostomy care)
urinary and bowel diversion procedures
body image disturbance and appropriate interventions
measures to maintain skin integrity
Perform gastric lavage
lavage techniques, methods and equipment
indications and contraindications of treatments/procedures
insertion, maintenance, and removal process for tubes and catheters
relevant anatomy and physiology
Perform peritoneal dialysis

Linking of Knowledge Statements and Activity Statements
peritoneal dialysis techniques, methods and equipment
normal assessment parameters (e.g., labs, vitals, physical assessment)
infection control principles
intended purpose and function of equipment
trouble shooting procedures
components of intake and output
application of basic mathematical calculations
signs and symptoms of overhydration and dehydration
insertion, maintenance, and removal process for tubes and catheters
relevant anatomy and physiology
Perform suctioning (oral, nasopharyngeal, endotracheal, tracheal)
suctioning techniques, methods and equipment
infection control principles
normal growth and development
indications and contraindications of treatments/procedures
relevant anatomy and physiology
signs and symptoms of impaired ventilation/oxygenation
when and how to perform focused assessments / reassessments (e.g., pain, systems, disease process)
Provide pulmonary hygiene (e.g., chest physiotherapy, spirometry)
pulmonary hygiene techniques, methods and equipment
interdisciplinary resources
infection control principles
intended purpose and function of equipment
trouble shooting procedures
Indications and contraindications of treatments/procedures
relevant anatomy and physiology
signs and symptoms of impaired ventilation/oxygenation
Initiate, maintain and/or evaluate telemetry monitoring
telemetry monitoring and interpretation
cardiac rhythms
physical assessment
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
intended purpose and function of equipment
trouble shooting procedures
Perform tracheostomy care
tracheostomy care and supplies
physical assessment
scope of practice and delegation
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
interdisciplinary team inclusion
infection control principles
trouble shooting procedures

Linking of Knowledge Statements and Activity Statements
normal growth and development
signs and symptoms of impaired ventilation/oxygenation
oxygen delivery systems
Implement and monitor phototherapy
risk factors and safety precautions for phototherapy
indications for Phototherapy
phototherapy techniques, methods and equipment
physical assessment
routine care and treatment options
disease processes
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
disease processes and appropriate care
intended purpose and function of equipment
trouble shooting procedures
safe and effective use of temperature control devices
Remove sutures or staples
staples/sutures removal techniques and supplies
physical assessment
infection control principles
handling and disposal of biohazardous materials
types and staging of wounds
stages of wound healing
Connect and maintain pacing devices (e.g., pacemaker, biventricular pacemaker, implantable cardioverter defibrillator)
pacing methods, techniques, and equipment
physical assessment
critical signs and symptoms
intended purpose and function of equipment
trouble shooting procedures
indications and contraindications of treatments/procedures
insertion, maintenance, and removal process for tubes and catheters
relevant anatomy and physiology
conditions requiring emergency intervention (e.g., cardiac arrest, respiratory arrest, stroke)
cardiac rhythms
Monitor and maintain arterial lines
principles to maintain arterial lines
normal assessment parameters (e.g., labs, vitals, physical assessment)
critical signs and symptoms
interdisciplinary resources
hemodynamics, tissue perfusion and hemostasis principles
invasive monitoring parameters
Assess client understanding of and ability to manage self care (e.g., chronic disease process, home environment, supply access)
methods to evaluate client understanding (e.g., return demonstration)
methods to evaluate client's ability for self care

Linking of Knowledge Statements and Activity Statements
communication skills/language
teaching/learning styles
client/family cultural diversity (e.g., religion, ethnicity)
common barriers to routine health care
coping strategies
components of activities of daily living (ADL) and instrumental activities of daily living (IADL)
Provide and manage client care based on medical diagnosis
tests/treatments to match client needs
disease Processes and Appropriate Care
evidenced-based practice resources (e.g., journals, research, best practices)
types of restraints
Identify pathophysiology related to an acute or chronic condition
pathophysiology related to an acute or chronic condition
physical assessment
comprehensive health history
normal assessment parameters (e.g., labs, vitals, physical assessment)
relevant anatomy and physiology