



NCSBN

National Council of State Boards of Nursing

NCSBN RESEARCH BRIEF

Volume 59 | May 2013

Report of Findings from the 2012 LPN/VN Nursing Knowledge Survey



Report of Findings from the 2012 LPN/VN Nursing Knowledge Survey

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

Mission Statement

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Address inquiries in writing to NCSBN Permissions, 111 E. Wacker Drive, Suite 2900, Chicago, IL 60601-4277. Suggested Citation: National Council of State Boards of Nursing. (2013). *Report of Findings from the 2012 LPN/VN Nursing Knowledge Survey*. Chicago: Author.

Printed in the United States of America

ISBN# 978-0-9848518-5-0

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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. 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 licensed practical/vocational nurse (LPN/VN) practice, NCSBN conducts practice analysis studies every three years.

The primary purpose of this study is to identify the knowledge needed by newly licensed LPN/VNs. 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.

A number of steps are necessary to perform an analysis of the knowledge needed by newly licensed LPN/VNs. A panel of subject matter experts (SMEs) was assembled; a list of LPN/VN knowledge statements was created and incorporated into a questionnaire that was sent to a large randomly drawn sample of newly licensed LPN/VNs, LPN/VN Educators, and LPN/VN Supervisors; and data was collected and analyzed.

Panel of SMEs

A panel of eight SMEs was assembled to assist with the creation of the knowledge statements and survey. Panel members taught LPN/VN students, supervised newly licensed LPN/VNs or were newly licensed LPN/VNs themselves. 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

2012 LPN/VN Nursing Knowledge Survey. In the initial meeting 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 newly licensed LPN/VN 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 two panelists bridging the two groups.

This second panel reviewed the activity statements as provided and then developed knowledge statements for each activity statement. The knowledge statements are intended to provide more detailed information regarding the knowledge needed by newly licensed LPN/VNs in order to perform nursing activities. The resulting 219 knowledge statements were incorporated into a survey format.

Survey Process

Sample Selection

Newly Licensed LPN/VNs: A random sample of 2,150 LPN/VNs was selected from a list of candidates who passed the NCLEX-PN[®] Examination between Jan. 15, 2012 and March 31, 2012. 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 LPN/VNs (LPN/VN Educators): In addition, surveys were sent to 2,100 LPN/VN 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 nursing instructor; and (3) a mental health or community health nursing instructor. In the event that there were faculty members unable to complete the survey, the dean/directors were asked to give the survey to additional medical/surgical faculty members.

Supervisors of Newly Licensed LPN/VNs (LPN/VN Supervisors): Finally, 2,100 employers (700 in nursing homes, 700 in hospitals and 700 in home health agencies) of newly licensed LPN/VNs were surveyed. The surveys were mailed to the directors of nursing (DON) or an equivalent title at the 2,100 health care facilities mentioned previously. The DONs were asked to complete the survey if they directly supervised newly licensed LPN/VNs. If they did not supervise newly licensed LPN/VNs, the DONs were asked to give the survey to a nurse who did.

Representativeness

Because multiple surveys were sent to LPN/VN Educators at the same institution, all responders from an institution were counted as one in the representativeness calculation. 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 LPN/VNs; 700 nursing programs, which included surveys for three educators [2,100 LPN/VN Educators in total]; and 700 nursing homes, 700 hospitals and 700 home health agencies [2,100 potential supervisors of newly licensed LPN/VNs]).

A five-stage mailing process was used to engage the participants in the study. All potential participants were promised confidentiality with regard to their participation and their responses. The survey was conducted from April through July 2012.

Return Rates

There were 2,150 Newly Licensed LPN/VNs invited to complete the survey and of those, 54 surveys were undeliverable due to incorrect addresses. There were 473 surveys returned by Newly Licensed LPN/VNs for an adjusted return rate of 22.6%. A total of 2,100 LPN/VN Educators were invited to complete the survey and 24 of those were undeliverable due to incorrect addresses. A total of 803 surveys were returned by LPN/VN Educators for a 38.6% adjusted return rate. There were 2,100 surveys sent to LPN/VN Supervisors, with 348 surveys returned due to

incorrect addresses. LPN/VN Supervisors returned 239 surveys for an adjusted return rate of 13.6%. Of the 1,515 surveys received, 17 responders did not report holding either an LPN/VN or RN license. With the implementation of quality control procedures, the analyzable return rates were 22.1%, 37.3% and 14.6% for Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors, respectively. There were 1,493 analyzable surveys or a return rate of 25.2% for the total group.

LPN/VN Knowledge Survey Nonresponder Study

In order to ensure the validity of the results, NCSBN conducted a telephone survey of nonresponders to determine if those LPN/VNs not responding would have rated the knowledge statements differently than the survey responders. If there are no systematic differences in responders versus nonresponders, it would seem that the results are not biased and there is evidence to support the validity of the survey results. Of the LPN/VNs not participating in the survey, a stratified random sample of Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors were contacted via telephone. The study found that the nonresponders rated the knowledge statements similar to how responders rated them; this similarity supports the validity of the results of this study.

Demographics, Experiences and Practice Environments of Participants

Nursing Licenses Held

All of the Newly Licensed LPN/VNs responding to the survey held an LPN/VN license. Only 4.1% of LPN/VN Educators and 5.9% of LPN/VN Supervisors held an LPN/VN license. The remainder of the respondents held RN licenses.

Gender

The majority of survey responders (93.2%) reported their gender as female: Newly Licensed LPN/VNs (89.8%), LPN/VN Educators (94.9%) and LPN/VN Supervisors (94.0%).

Age

Of the responders who elected to provide data regarding their age, Newly Licensed LPN/VNs' average age was 33.9 years (SD=9.91); LPN/VN Educators' average age was 51.0 years (SD=9.97); and LPN/VN Supervisors' average age was 50.9 years (SD=9.33).

Race/Ethnic Background

White–Not of Hispanic Origin was the ethnic background identified most frequently by Newly Licensed LPN/VNs (53.2%), LPN/VN Educators (85.5%) and LPN/VN Supervisors (87.3%).

Education Background

The majority of Newly Licensed LPN/VNs (82.2%) reported having an LPN/VN diploma or certificate. Approximately 33.2% of LPN/VN Educators listed their highest degree as an RN baccalaureate degree or an RN generic master's degree earned within the U.S. (23.8%). LPN/VN Supervisors listed their highest degree as an RN associate's degree (27.1%) or an RN baccalaureate degree earned within the U.S. (24.7%).

Primary Language

The majority of Newly Licensed LPN/VNs (79.9%), LPN/VN Educators (97.2%) and LPN/VN Supervisors (93.3%) reported English as their primary language.

Years of Experience

Newly Licensed LPN/VNs reported an average of almost one year (11.9 months) since graduation. LPN/VN Supervisors had spent the longest time at their jobs (12.9 years) compared to LPN/VN Educators, who spent an average of 10.1 years in their jobs.

Facilities

The majority of Newly Licensed LPN/VNs (50.6%) worked in long-term care. LPN/VN Educators (52.4%) worked most frequently in hospitals. LPN/VN Supervisors worked primarily in long-term care (44.6%) and hospitals (34.5%).

Client Health Conditions

The majority of Newly Licensed LPN/VNs (58.2%) worked with clients having stabilized chronic conditions. LPN/VN Educators (66.7%) and LPN/VN Supervisors (56.5%) reported working with clients exhibiting acute conditions. A large percentage of LPN/VN Supervisors also worked with clients having unstabilized chronic health conditions (52.9%) and clients at the end of life (52.5%). 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%.

Client Ages

The most frequent response for Newly Licensed LPN/VNs (71.1%) and LPN/VN Supervisors (82.4%) was caring for adults aged 65-85. LPN/VN Educators reported caring for both adults aged 18-64 (72.4%) and adults aged 65-85 (72.2%). 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 LPN/VNs (46.1%) and LPN/VN Supervisors (48.6%) was nursing homes. LPN/VN Educators (49.7%) most frequently answered medical/surgical unit. On average for all job titles, the least reported employment settings were occupational health (0.1%) and prison/correctional facility/jail (1.0%). Responders were able to answer up to two employment settings allowing for percentages totaling more than 100%.

Knowledge Statements

Overview of Methods

The 2012 LPN/VN Nursing Knowledge Survey asked responders to rate the importance of knowledge statements necessary for a newly licensed LPN/VN 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 specific practice setting. Importance was rated by using a five-point (1-5) scale.

SME Validation of Survey Findings

The SME Panel was asked to provide independent ratings of the 219 knowledge statements. In order to validate the results of the survey, these importance ratings were compared to the average importance ratings from the knowledge survey; findings indicate that the importance ratings of SMEs compared to the ratings of each subgroup was similar. In fact, the only knowledge statement rating that was one point different between the SMEs and the Newly Licensed LPN/VNs is “reminiscence therapy.” The SMEs rated the importance of this knowledge statement at 2.50, while Newly Licensed LPN/VNs rated the same statement at 3.57. There were no other knowledge statements that had more than a one point difference between the SMEs and survey responders.

Representativeness of Knowledge Statements

The participants were asked whether the knowledge areas listed on the survey represented knowledge a newly licensed LPN/VN should possess. A large percentage of Newly Licensed LPN/VNs (74.1%), LPN/VN Educators (61.5%) and LPN/VN Supervisors (66.2%) responded that the survey represented the necessary knowledge “very well.” Moreover, 94.8% of Newly Licensed LPN/VNs, 90.9% of LPN/VN Educators and 90.0% of LPN/VN Supervisors noted that the knowledge statements covered the knowledge of a newly licensed LPN/VN “well” to “very well.”

Importance of Knowledge Statements

The safe and effective practice of newly licensed LPN/VNs was determined by participants’ responses based on an importance rating scale. Importance ratings were recorded using a five-point scale and the average importance ratings were calculated by including all importance ratings, regardless of practice setting. The SME panel ratings and survey respondent ratings of the 219 knowledge statements yielded similar results. Newly Licensed LPN/VNs, LPN/VN Educators, LPN/VN Supervisors and SMEs rated “medication administration protocols (e.g., heart rate, blood glucose, blood pressure)” and “client safety” among the five most important knowledge statements. In terms of least important knowledge statements, the groups rated “group

session participation” and “reminiscence therapy” to be among the five least important knowledge statements.

Knowledge Statement Subgroup Analysis

Primary Job Title

The average knowledge statement importance ratings of Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors were cross-analyzed for meaningful differences between these job titles. The least important knowledge statement for LPN/VN Educators and LPN/VN Supervisors was “central venous catheter blood draw,” with an average value of 2.56 and 2.72, respectively. Newly licensed LPN/VNs rated “group session participation” the lowest, with an average value of 3.52. The most important knowledge statement for LPN/VN Educators and Supervisors was “medication administration,” with an average value of 4.89 and 4.77, respectively. Newly Licensed LPN/VNs rated “signs and symptoms of allergic reactions” the highest, with an average value of 4.84. 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, community-based facilities and other facilities were cross-analyzed for meaningful differences. Responders working in hospitals, long-term care and other facilities rated “central venous catheter blood draw” as the least important knowledge statement, with average values of 2.65, 3.20 and 2.83, respectively. Responders working in community-based facilities for their facility type rated “reminiscence therapy” the lowest, with an average value of 3.32. The most important knowledge statement for responders working in hospitals and community-based facilities was “client safety,” with average values of 4.86 and 4.83, respectively. Individuals working in long-term care facilities rated “medication administration” highest, with an average value of 4.86. Responders answering “other” for their facility type rated “medication administration

protocols (e.g., heart rate, blood glucose, blood pressure)" highest with an average rating of 4.85.

Summary

Responders to the 2012 LPN/VNs Nursing Knowledge Survey found the statements listed in the survey to be representative of the knowledge necessary for safe and effective professional practice of newly licensed LPN/VNs. There were similar importance ratings of the knowledge statements for Newly Licensed LPN/VNs, LPN/VN Educators, LPN/VN Supervisors and SMEs.

CONCLUSION

Based on the reliability of the knowledge statement instrument, the survey of the nonresponders, the validation of the knowledge statement importance ratings by SMEs, and the similarity of knowledge statement importance ratings by Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors, the results of this survey can be used to inform item development.

Report of Findings from the 2012 LPN/VN Nursing Knowledge Survey

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

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. Practice analysis studies assist NCSBN in evaluating the validity of the test plan that guides content distribution of the licensure examination (AERA, APA, & NCME, 1999). Because changes can occur in licensed practical/vocational nurse (LPN/VN) practice, NCSBN conducts practice analysis studies every three years. The previous LPN/VN practice analysis study was conducted in 2009 (NCSBN, 2010b).

The primary purpose of this study is to identify the knowledge needed by newly licensed LPN/VNs. 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). At this time, these knowledge statements will be used solely to inform item development. The previous LPN/VN knowledge survey was conducted in 2009 (NCSBN, 2010a).

Methodology

A number of steps are necessary to perform an analysis of the knowledge needed by newly licensed LPN/VNs. This section provides a description of the methodology used to conduct the 2012 LPN/VN Nursing Knowledge 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 LPN/VNs, LPN/VN Educators and LPN/VN Supervisors.

Methodology Reviewers

Three 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 three reviewers indicated these methodologies were psychometrically sound, legally defensible and in compliance with professional testing standards. *See Appendix A for a list of methodology reviewers.*

Panel of SMEs

A panel of eight SMEs was assembled to assist with the creation of the knowledge statements and survey. Panel members all worked with and/or supervised the practice of newly licensed LPN/VNs within their first six month of practice or were newly licensed LPN/VNs themselves. The panelists were representative of the four NCSBN geographic areas, as well as the major nursing specialties and practice settings. *See Appendix B for a list of panel members.*

Survey Development

A number of processes were used to create, evaluate and refine the survey instrument used for the 2012 LPN/VN Nursing 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 newly licensed LPN/VN 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 two panelists bridging the two groups.

This second panel reviewed the activity statements and then developed knowledge statements for each activity statement. The knowledge statements were then reviewed and edited by the NCLEX[®] Examination Committee (NEC). The resulting 219 knowledge statements were incorporated into a survey format. *See Appendix K for the link between knowledge statements and activity statements that were developed by the SMEs.*

The final version of the survey contained four sections. Following the initial identification of

responder characteristics, the first section focused on the knowledge necessary for newly licensed LPN/VN practice, asking responders to rate the importance of each knowledge statement by using a 1-5 point 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. *See Appendix C for the 2012 Knowledge of Newly Licensed Registered Nurses Survey.*

Survey Process

Sample Selection

Newly Licensed LPN/VNs: A random sample of 2,150 LPN/VNs was selected from a list of candidates who passed the NCLEX-PN® Examination between Jan. 15, 2012 and March 31, 2012, and did not participate in the LPN/VN Practice Analysis Survey. 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 LPN/VNs (LPN/VN 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 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 (2010 and 2011). In the event that there were faculty members unable to complete the survey, the dean/directors were asked to give the survey to additional medical/surgical faculty members.

Supervisors of Newly Licensed LPN/VNs (LPN/VN Supervisors): Finally, 2,100 employers (700 in nursing homes, 700 in hospitals and 700 in home health agencies) of newly licensed LPN/VNs were surveyed.

This list came from a substantially larger mailing list, but the selection of employers to be included in the survey was based upon the number of LPN/VN employees working for the company. This criterion was applied in order to maximize the likelihood that the employer would have newly licensed LPN/VNs and supervisors of newly licensed LPN/VNs. Surveys were mailed to the directors of nursing (DONs) or an equivalent title at the 2,100 health care facilities mentioned previously. The DONs were asked to complete the survey if they directly supervised newly licensed LPN/VNs. If they did not supervise newly licensed LPN/VNs, the DONs were asked to give the survey to a nurse who did.

Representativeness

Table 1 presents the correspondence of sample and responders within each primary job title by NCSBN jurisdiction. Because multiple surveys were mailed to LPN/VN 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 LPN/VNs; 700 nursing programs, which included surveys for three educators [2,100 LPN/VN Educators in total]; and 700 nursing homes, 700 hospitals and 700 home health agencies [2,100 potential supervisors of newly licensed LPN/VNs]). To acquire the LPN/VN Educator responders, three surveys were sent to the dean/director of the program to distribute amongst their faculty members. It was requested that a survey be distributed to an educator in each of the following general areas: (1) medical/surgical nursing; (2) obstetrics-gynecology/pediatric nursing; and (3) 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 medical/surgical nursing participate.

A five-stage mailing process was used to engage the participants in the study. A presurvey letter was sent to each person or facility selected for the sample. One week later, the survey(s), with a cover

Table 1. Representativeness of Responders by NCSBN Jurisdiction

Jurisdiction	Newly Licensed LPN/VN				LPN/VN Educator				LPN/VN Supervisor			
	Sample		Responders		Sample		Responders		Sample		Responders	
	N	%	N	%	N	%	N	%	N	%	N	%
Alabama	57	2.6	10	2.2	11	1.6	10	1.3	51	2.4	5	2
Alaska	3	0.1	0	0	0	0	0	0	1	0.1	0	0
American Samoa	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	24	1.1	3	0.7	8	1.1	9	1.2	21	1	2	0.8
Arkansas	46	2.1	7	1.5	13	1.9	14	1.8	25	1.2	3	1.2
California	282	13.1	46	9.9	85	12.1	91	11.8	172	8.2	23	9
Colorado	13	0.6	6	1.3	9	1.3	7	0.9	25	1.2	7	2.8
Connecticut	25	1.2	5	1.1	3	0.4	2	0.3	21	1	3	1.2
Delaware	8	0.4	1	0.2	5	0.7	5	0.65	3	0.1	0	0
District of Columbia	1	0.1	0	0	3	0.4	3	0.4	11	0.5	0	0
Florida	158	7.4	28	6	42	6	49	6.3	137	6.5	21	8.2
Georgia	27	1.3	11	2.4	17	2.4	21	2.7	66	3.1	7	2.8
Guam	0	0	0	0	1	0.1	1	0.1	0	0	0	0
Hawaii	9	0.4	2	0.4	3	0.4	3	0.4	0	0	0	0
Idaho	10	0.5	2	0.4	3	0.4	3	0.4	15	0.7	0	0
Illinois	63	2.9	11	2.4	25	3.6	26	3.4	50	2.4	2	0.8
Indiana	61	2.8	20	4.3	13	1.9	14	1.8	65	3.1	7	2.8
Iowa	56	2.6	6	1.3	9	1.3	9	1.2	15	0.7	2	0.8
Kansas	27	1.3	2	0.4	9	1.3	10	1.3	15	0.7	2	0.8
Kentucky	30	1.4	8	1.7	13	1.9	22	2.8	46	2.2	3	1.2
Louisiana	86	4	24	5.2	19	2.7	26	3.4	93	4.4	18	7.1
Maine	2	0.1	0	0	0	0	0	0	5	0.2	1	0.4
Maryland	15	0.7	4	0.5	5	0.7	4	0.5	19	0.9	2	0.8
Massachusetts	23	1.1	7	1.5	12	1.7	14	1.8	43	2.1	4	1.6
Michigan	72	3.4	8	1.7	10	1.4	13	1.7	45	2.1	4	1.6
Minnesota	57	2.7	18	3.9	12	1.7	13	1.7	57	2.7	10	3.9
Mississippi	38	1.8	8	1.7	16	2.3	17	2.2	26	1.2	1	0.4
Missouri	44	2.1	6	1.3	24	3.4	24	3.1	40	1.9	3	1.2
Montana	6	0.3	1	0.2	1	0.1	1	0.1	6	0.3	0	0
Nebraska	11	0.5	7	1.5	8	1.1	8	1	20	1	3	1.2
Nevada	2	0.1	0	0	1	0.1	2	0.3	8	0.4	2	0.8
New Hampshire	9	0.4	0	0	3	0.4	4	0.5	2	0.1	0	0
New Jersey	46	2.1	6	1.3	22	3.1	21	2.7	42	2	2	0.8
New Mexico	9	0.4	1	0.2	3	0.4	4	0.5	5	0.2	0	0
New York	92	4.3	17	3.7	36	5.1	36	4.7	134	6.4	5	2
North Carolina	14	0.7	5	1.1	17	2.4	19	2.5	52	2.5	5	2
North Dakota	5	0.2	0	0	3	0.4	3	0.4	3	0.1	1	0.4
Northern Mariana Islands	0	0	0	0	0	0	0	0	0	0	0	0
Ohio	141	6.6	29	6.3	40	5.7	43	5.6	114	5.4	15	5.9
Oklahoma	30	1.4	15	3.2	18	2.6	21	2.7	47	2.2	14	5.5

Table 1. Representativeness of Responders by NCSBN Jurisdiction

Jurisdiction	Newly Licensed LPN/VN				LPN/VN Educator				LPN/VN Supervisor			
	Sample		Responders		Sample		Responders		Sample		Responders	
	N	%	N	%	N	%	N	%	N	%	N	%
Oregon	17	0.8	0	0	5	0.7	5	0.7	4	0.2	0	0
Pennsylvania	89	4.1	18	3.9	32	4.6	34	4.4	105	5	10	3.9
Puerto Rico*	0	0	0	0	0	0	0	0	6	0.3	0	0
Rhode Island	1	0.1	1	0.2	1	0.1	0	0	3	0.1	2	0.8
South Carolina	19	0.9	3	0.7	7	1	7	0.9	25	1.2	1	0.4
South Dakota	5	0.2	1	0.2	1	0.1	1	0.1	3	0.1	0	0
Tennessee	47	2.2	14	3	11	1.6	14	1.8	68	3.2	10	3.9
Texas	222	10.3	76	16.4	57	8.1	74	9.6	242	11.5	45	17.6
Utah	14	0.7	4	0.9	3	0.4	3	0.4	8	0.4	1	0.4
Vermont	0	0	3	0.7	2	0.3	2	0.3	4	0.2	0	0
Virginia	57	2.6	10	2.2	30	4.3	32	4.1	63	3	4	1.6
Virgin Islands	0	0	0	0	0	0	0	0	0	0	0	0
Washington	17	0.8	2	0.4	8	1.1	9	1.2	14	0.7	0	0
West Virginia	16	0.7	3	0.7	11	1.6	10	1.3	18	0.9	1	0.4
Wisconsin	40	1.9	8	1.7	10	1.4	11	1.4	37	1.8	4	1.6
Wyoming	4	0.2	0	0	0	0	0	0	3	0.1	0	0
Total	2150	100	464	100	700	100	774	100	2100	100	255	100

*No longer an NCSBN Member Board.

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 nonresponders approximately one week after the second reminder. The survey was conducted from April through July 2012.

Confidentiality

All potential participants were promised confidentiality with regard to their participation and responses. Preassigned 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 CEO for compliance with organizational guidelines for research studies involving human subjects.

Return Rates

There were 2,150 Newly Licensed LPN/VNs invited to complete the survey and of those, 54 surveys were undeliverable due to incorrect addresses. There

were 473 surveys returned by Newly Licensed LPN/VNs for an adjusted return rate of 22.6%. A total of 2,100 LPN/VN Educators were invited to complete the survey and 24 of those were undeliverable due to incorrect addresses. A total of 803 surveys were returned by LPN/VN Educators for a 38.7% adjusted return rate. There were 2,100 surveys sent to LPN/VN Supervisors, with 348 returned due to incorrect addresses. LPN/VN Supervisors returned 239 surveys for an adjusted return rate of 13.6%. The total number of surveys delivered was 5,924, with an adjusted return rate of 25.6% See *Table 2*.

It should be noted that the adjusted return rates by job title in *Table 2* are based on the original classification of the sample by their ID numbers. The ID number classified each member of the original sample into Newly Licensed LPN/VNs, LPN/VN Educators or LPN/VN Supervisors. For the remainder of this report, however, survey respondents are classified into job titles by what they chose to self-report on the survey. There were 38 survey respondents who self-reported different job titles than what their original IDs classified them as.

Table 2. Adjusted Return Rates

Job Title	Sample	Incorrect Addresses	Surveys Delivered	Adjusted Responses	Adjusted Return Rate %
Newly Licensed LPN/VNs	2150	54	2096	473	22.50
LPN/VN Educators	2100	24	2076	803	38.70
LPN/VN Supervisors	2100	348	1752	239	13.60
Total	6350	426	5924	1515	25.60

Table 3. Analyzable Return Rates

Job Title	Surveys Sent	Invalid Responses	Analyzable Responses	Analyzable Return Rates %
Newly Licensed LPN/VNs	2096	7	464	22.10
LPN/VNs Educators	2076	6	774	37.30
LPN/VNs Supervisors	1752	4	255	14.60
Total	5924	17	1493	25.20

Of the 1,515 surveys received, 17 responders did not report holding either an LPN/VN or RN license, which made their responses invalid. With the implementation of quality control procedures, the analyzable return rates were 22.1%, 37.3% and 14.6% for Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors, respectively. See *Table 3*. There were 1,493 analyzable surveys or a return rate of 25.2% for the total group.

Knowledge Survey Nonresponder Study

In order to ensure the validity of the results, NCSBN conducted a telephone survey of nonresponders to determine if those not responding would have rated the knowledge statements differently. If there are no systematic differences in responders versus nonresponders, it would seem that the results are not biased and there is evidence to support the validity of the results. Of those not participating in the survey, a stratified random sample of Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors were contacted via telephone. Of the potential contacts, a telephone interview was obtained from 90 participants: 31 Newly Licensed LPN/VNs, 29 LPN/VN Educators and 30 LPN/VN Supervisors. The study found that the majority of the nonresponders were either too busy, did not receive the initial survey invitation or did not respond for other reasons. More importantly, the study found

that the nonresponders 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 nonresponder study can be found in Appendix J.

Summary

A panel of LPN/VNs experienced in the practices of newly licensed LPN/VNs met and created a list of 219 knowledge statements that are important for a newly licensed LPN/VN to possess. A data collection instrument was developed, piloted and revised prior to being mailed. Those surveyed were divided into the following categories: 2,150 Newly Licensed LPN/VNs, 2,100 LPN/VN Educators (obtained by sending three surveys to 700 nursing programs) and 2,100 LPN/VN Supervisors (obtained by sending a survey to 700 nursing homes, 700 home health agencies and 700 hospitals). A 25.2% response rate of analyzable surveys was obtained for the total group. This analysis contains the responses of 464 Newly Licensed LPN/VNs, 774 LPN/VN Educators and 255 LPN/VN Supervisors.

DEMOGRAPHICS, EXPERIENCES AND PRACTICE ENVIRONMENTS OF PARTICIPANTS

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

All of the Newly Licensed LPN/VN responders held an LPN/VN license. Only 4.1% of the LPN/VN Educators and 5.9% of LPN/VN Supervisors held an LPN/VN license. The remainder of the respondents held RN licenses. Responders were allowed to select both licenses, so percentages do not add up to 100%. These figures were close to those from the 2009 survey figures, which were 100.0% (Newly Licensed LPN/VNs), 5.1% (LPN/VN Educators) and 5.3% (LPN/VN Supervisors). See *Figure 1*.

Gender

The majority of survey responders (93.2%) reported their gender as female: Newly Licensed LPN/VNs (89.8%), LPN/VN Educators (94.9%) and LPN/VN Supervisors (94.0%). See *Figure 2*.

Survey Adequacy

The majority of survey responders within each job title reported the survey covered the important knowledge areas of a newly licensed LPN/VN "well" or "very well." Approximately 94.8% of Newly Licensed LPN/VNs, 90.9% of LPN/VN Educators and 90.0% of LPN/VN Supervisors rated the survey as covering knowledge "well" or "very well." See *Figure 3*.

Age

Newly Licensed LPN/VNs' average age was 33.9 years (SD=9.91); LPN/VN Educators' average age was 51.0 years (SD=9.97); LPN/VN Supervisors' average age was 50.9 years (SD=9.33). In 2009, the average ages for the three groups were 34.0 years, 49.9 years and 49.6 years, respectively.

Race/Ethnic Background

White-Not of Hispanic Origin was the ethnic background identified most frequently by Newly Licensed LPN/VNs (53.2%), LPN/VN Educators (85.5%) and LPN/VN Supervisors (87.3%). See *Figure 4*. These Newly Licensed LPN/VN and LPN/VN Educator percentages have decreased from 2009 to 2012 by 1.9% and 3.7%, respectively, while the LPN/VN Supervisor percentage increased by 1.6%.

Figure 1. Licenses by Primary Job Title

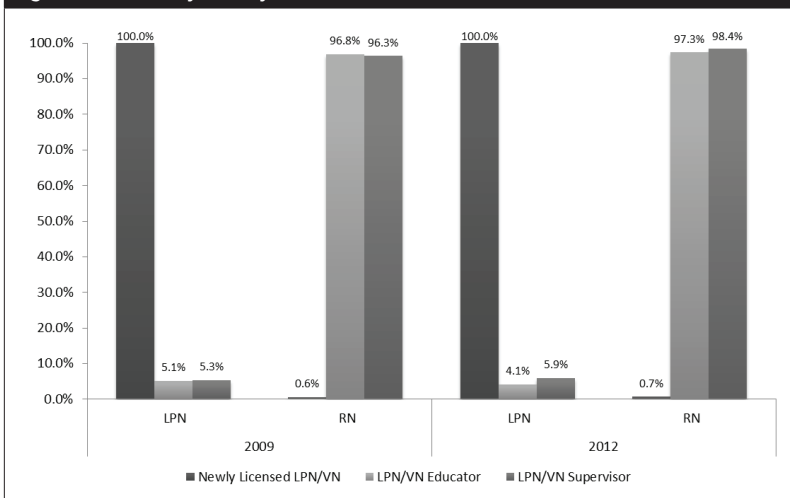


Figure 2. Gender by Primary Job Title

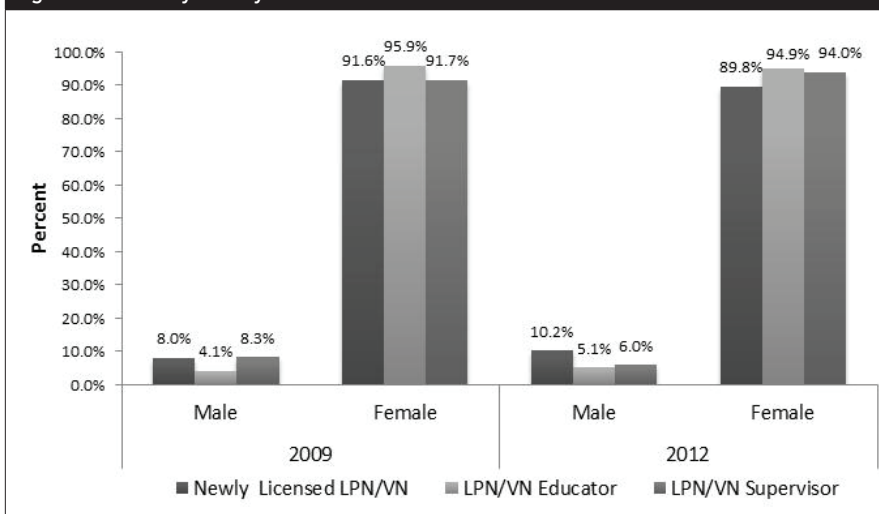
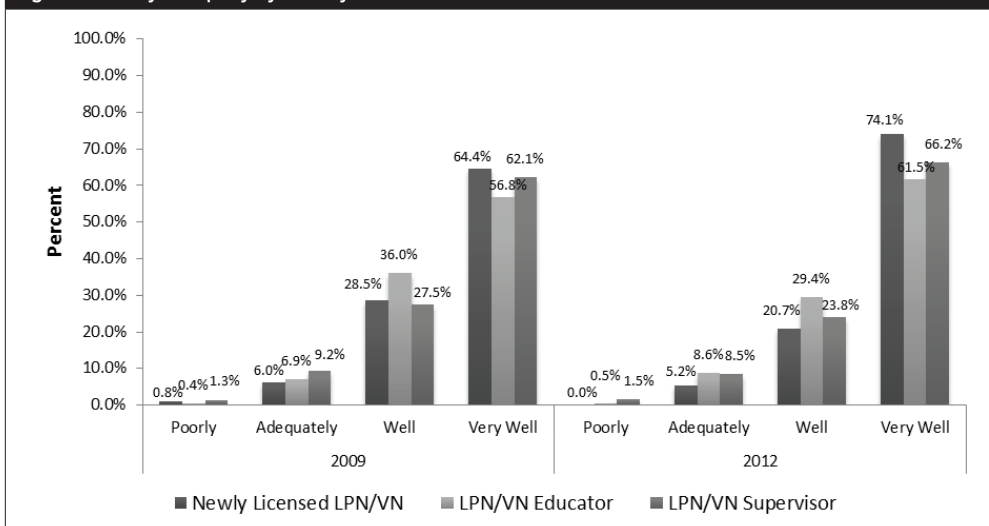


Figure 3. Survey Adequacy by Primary Job Title



Education Background

The majority of Newly Licensed LPN/VNs (82.2%) reported having an LPN/VN diploma or certificate. Approximately 33.2% of LPN/VN Educators listed their highest degree as an RN baccalaureate degree or an RN generic master’s degree earned within the U.S. (23.8%), a decrease of 2.5% and an increase of 1.5%, respectively, from 2009. LPN/VN Supervisors listed their highest degree as an RN associate’s degree (27.1%) or an RN baccalaureate degree earned within the U.S. (24.7%), a decrease of 2.4% and 2.2%, respectively, from 2009. See Table 4.

Primary Language

The majority of Newly Licensed LPN/VNs (79.9%), LPN/VN Educators (97.2%) and LPN/VN Supervisors (93.3%) reported English as their primary language. See Figure 5.

Years of Experience

Newly Licensed LPN/VNs reported graduating almost one year ago (11.9 months). LPN/VN Supervisors spent the longest time at their jobs (12.9 years) compared to LPN/VN Educators, who spent an average of 10.1 years at their jobs. In 2009, Newly

Figure 4. Race/Ethnic Background by Primary Job Title

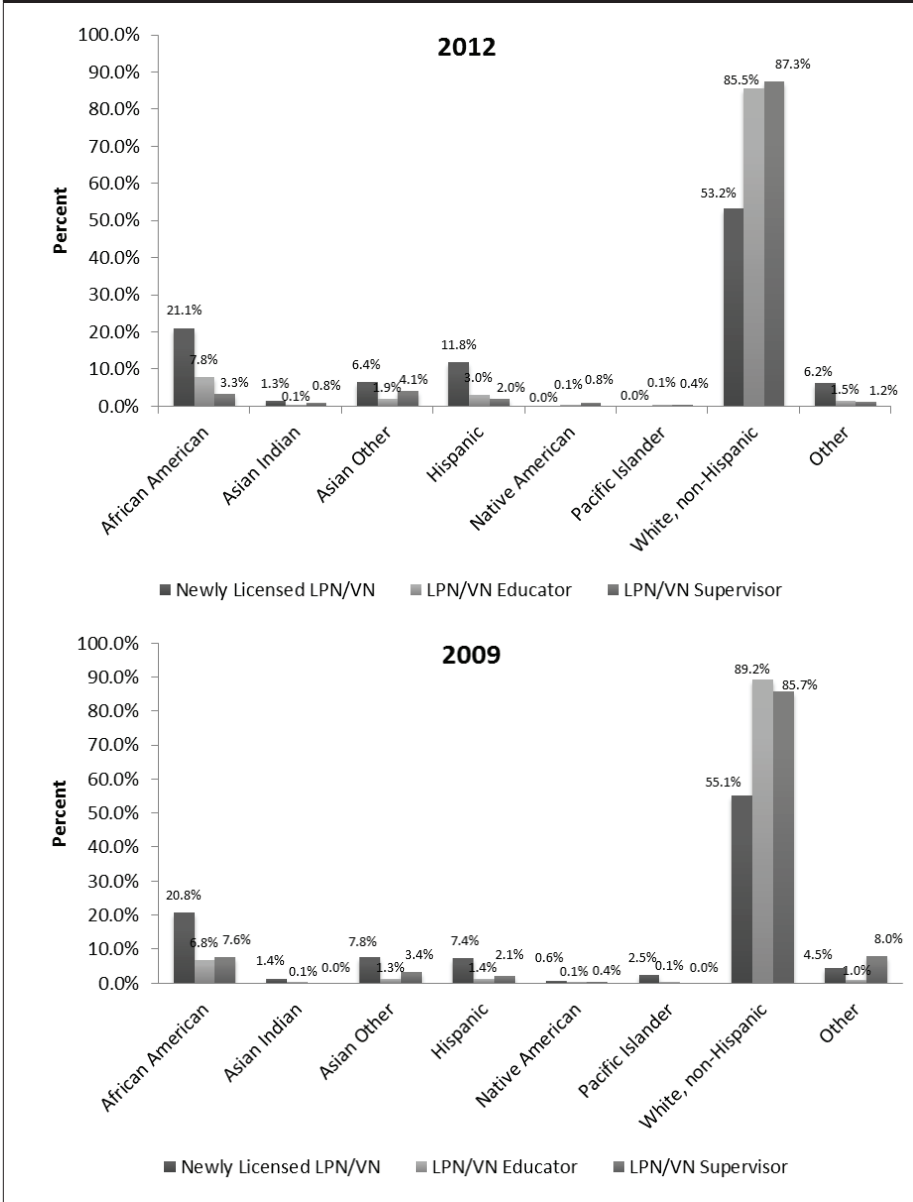
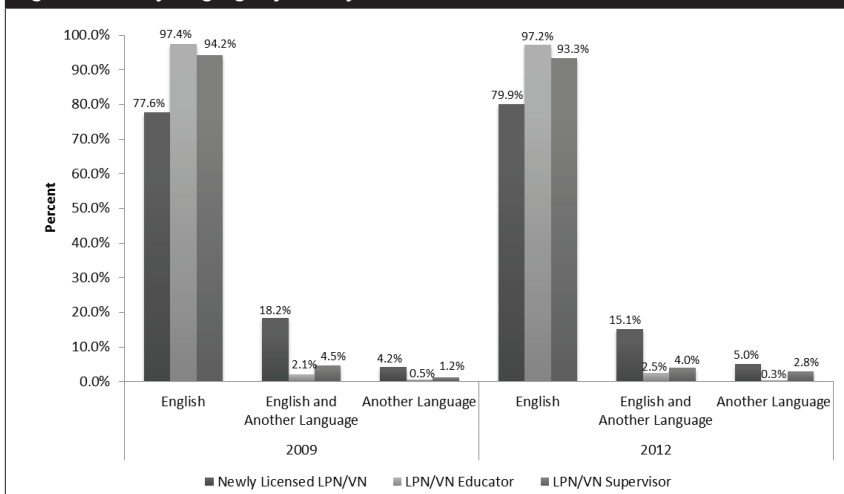


Table 4. Educational Background by Primary Job Title

Degree	Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor	
	2009	2012	2009	2012	2009	2012
LPN/VN - Diploma/ Certificate U.S.	82.9%	82.2%	0.8%	0.7%	3.1%	1.2%
LPN/VN - Associate's Degree U.S.	14.6%	14.9%	0.1%	0.3%	1.3%	0.0%
RN - Diploma U.S.	0.0%	0.0%	1.8%	1.4%	7.0%	7.2%
RN - Associate Degree U.S.	1.0%	0.2%	9.8%	9.1%	29.5%	27.1%
RN - Baccalaureate Degree U.S.	0.4%	0.0%	35.7%	33.2%	26.9%	24.7%
RN - Generic Master's Degree U.S.	0.0%	0.0%	22.3%	23.8%	15.9%	18.7%
RN - Master's (Nurse Practitioner)	0.0%	0.0%	6.0%	5.4%	4.0%	1.2%
RN - Master's (Clinical Nurse Specialist)	0.0%	0.0%	10.6%	8.7%	4.8%	4.0%
RN - Master's (Nurse Midwife)	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
RN - Master's (CRNA)	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
RN - Generic Doctorate U.S.	0.0%	0.0%	0.0%	0.8%	0.0%	0.8%
RN - Nursing Doctorate in U.S.	0.0%	0.0%	1.7%	0.4%	0.9%	0.0%
Nursing Program Outside the U.S.	0.4%	0.2%	0.6%	0.0%	0.4%	2.8%
Other	0.8%	2.4%	10.6%	16.1%	6.2%	12.4%

Figure 5. Primary Language by Primary Job Title



Licensed LPN/VNs reported an average of 11.6 months since graduation; LPN/VN Educators spent 8.8 years at their jobs; and LPN/VN Supervisors spent an average of 16 years at their jobs.

Facilities

The majority of Newly Licensed LPN/VNs (50.6%) worked in long-term care; LPN/VN Educators (52.4%) worked most frequently in hospitals; and LPN/VN Supervisors worked primarily in long-term care (44.6%) and hospitals (34.5%). See Figure 6.

Client Health Conditions

The majority of Newly Licensed LPN/VNs (58.2%) worked with clients having stabilized chronic conditions. LPN/VN Educators (66.7%) and LPN/VN Supervisors (56.5%) reported working with clients exhibiting acute conditions. A large percentage of LPN/VN Supervisors also worked with clients having unstabilized chronic health conditions (52.9%) and clients at the end of life (52.5%). 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 7.

Client Ages

The most frequent response for Newly Licensed LPN/VNs (71.1%) and LPN/VN Supervisors (82.4%) was caring for adults aged 65-85. LPN/VN Educators reported caring for both adults aged 18-64 (72.4%) and adults aged 65-85 (72.2%). The ability to give multiple answers allows for percentages to equal more than 100%. See Figure 8 (Note: client ages were reported in different categories in the two years).

Employment Setting/Specialty

The majority of Newly Licensed LPN/VNs (46.1%) and LPN/VN Supervisors (48.6%) reported working in nursing homes. LPN/VN Educators (49.7%) most frequently reported working in a medical/surgical unit. On average for all job titles, the least reported employment settings were occupational health (0.1%) and prison/correctional facility/jail (1.0%). Responders were able to answer up to two employment settings allowing for percentages totaling more than 100%. See Table 5.

Figure 6. Facility by Primary Job Title

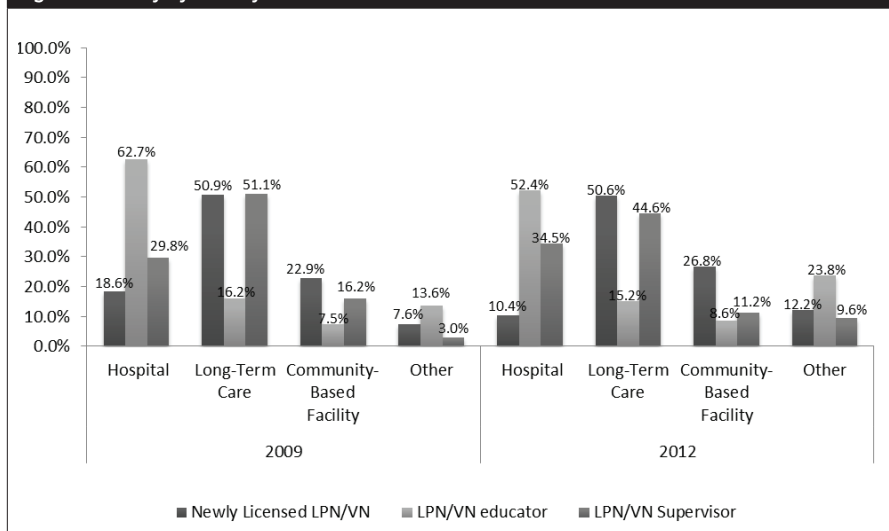


Figure 7. Client Health Conditions by Primary Job Title

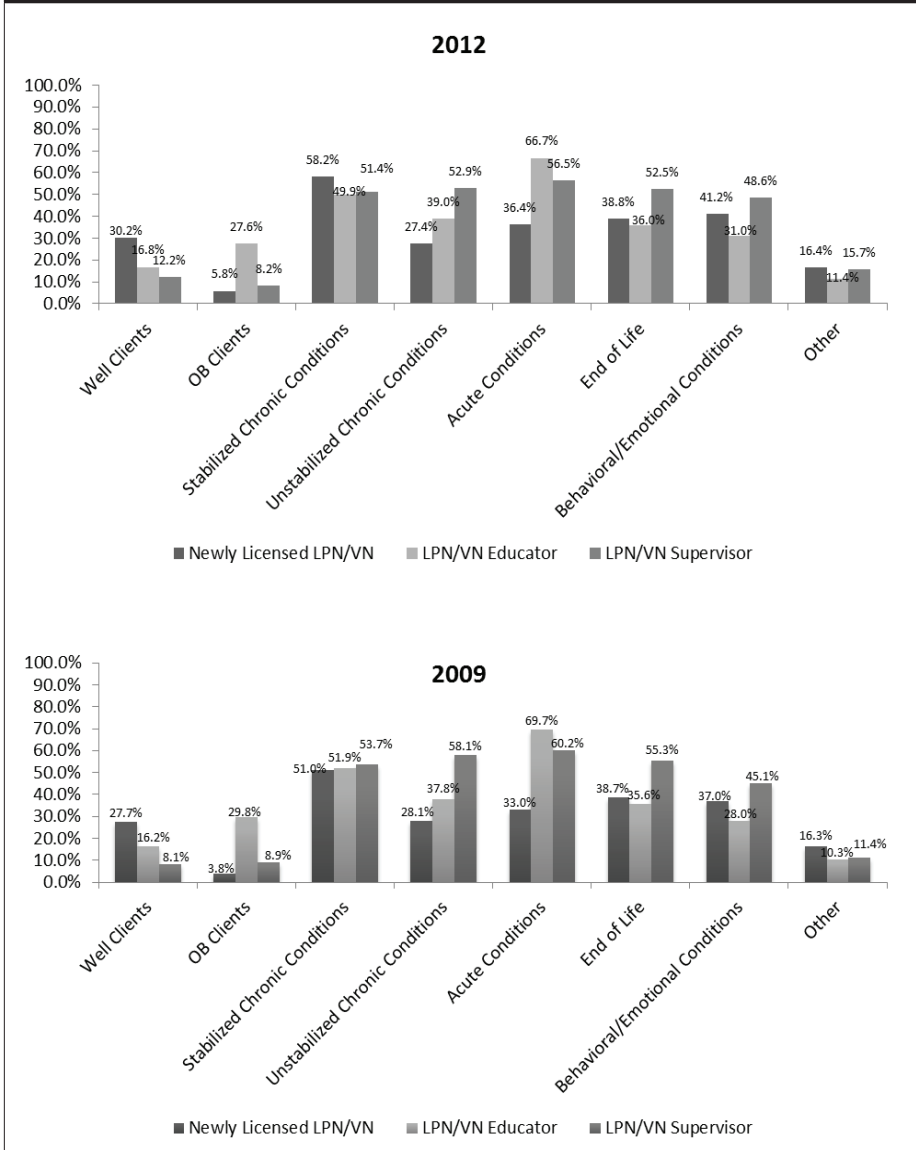


Figure 8. Client Ages by Primary Job Title

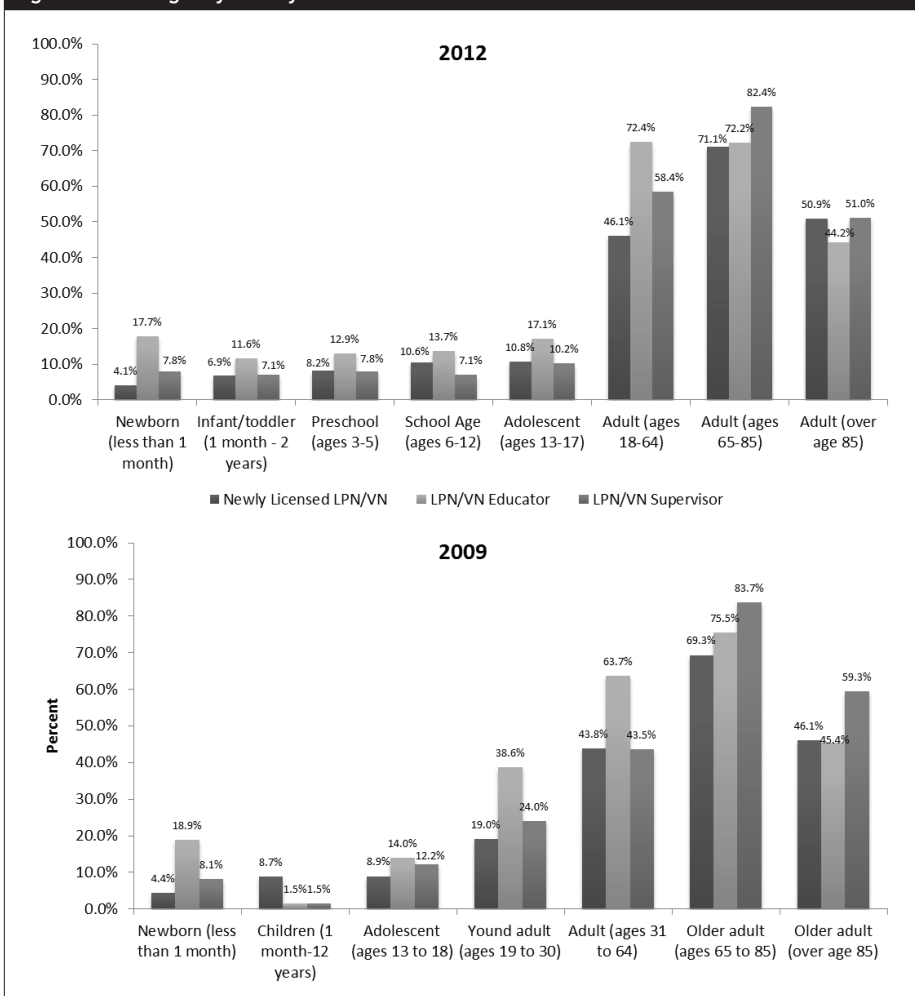


Table 5. Employment Setting/Specialty by Primary Job Title

Employment Setting	Year	Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor		Total	
		N	%	N	%	N	%	N	%
Critical care	2012	15	3.2	69	8.9	28	11	112	7.4
	2009	15	2.8	49	6	26	10.6	90	5.6
Medical-surgical unit	2012	39	8.4	385	49.7	63	24.7	487	32.1
	2009	57	10.8	473	57.5	60	24.4	590	37
Pediatrics	2012	20	4.3	68	8.8	7	2.7	95	6.3
	2009	15	2.8	70	8.5	10	4.1	95	6
Nursery	2012	0	0	52	6.7	1	0.4	53	3.5
	2009	2	0.4	48	5.8	4	1.6	54	3.4
Labor and delivery	2012	3	0.6	72	9.3	4	1.6	79	5.2
	2009	3	0.6	69	8.4	5	2	77	4.8

Table 5. Employment Setting/Specialty by Primary Job Title

Employment Setting	Year	Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor		Total	
		N	%	N	%	N	%	N	%
Postpartum unit	2012	1	0.2	87	11.2	2	0.8	90	5.9
	2009	6	1.1	106	12.9	7	2.8	119	7.5
Psychiatric	2012	19	4.1	84	10.9	16	6.3	119	7.9
	2009	26	4.9	58	7.1	8	3.3	92	5.8
Operating room	2012	7	1.5	11	1.4	4	1.6	22	1.5
	2009	7	1.3	13	1.6	3	1.2	23	1.4
Assisted living	2012	74	15.9	12	1.6	11	4.3	97	6.4
	2009	58	11	7	0.9	4	1.6	69	4.3
Nursing home	2012	214	46.1	267	34.5	124	48.6	605	39.9
	2009	247	46.9	295	35.9	125	50.8	667	41.8
Other long term care	2012	62	13.4	33	4.3	13	5.1	108	7.1
	2009	59	11.2	21	2.6	2	0.8	82	5.1
Rehabilitation	2012	70	15.1	37	4.8	46	18	153	10.1
	2009	89	16.9	44	5.4	31	12.6	164	10.3
Subacute unit	2012	14	3	28	3.6	24	9.4	66	4.4
	2009	19	3.6	29	3.5	21	8.5	69	4.3
Transitional care unit	2012	6	1.3	18	2.3	7	2.7	31	2
	2009	16	3	10	1.2	7	2.8	33	2.1
Physician/dentist's office	2012	39	8.4	8	1	3	1.2	50	3.3
	2009	21	4	8	1	1	0.4	30	1.9
Occupational health	2012	1	0.2	0	0	1	0.4	2	0.1
	2009	3	0.6	0	0	0	0	3	0.2
Outpatient clinic	2012	18	3.9	11	1.4	2	0.8	31	2
	2009	21	4	10	1.2	2	0.8	33	2.1
Home health	2012	50	10.8	11	1.4	29	11.4	90	5.9
	2009	57	10.8	10	1.2	39	15.9	106	6.6
Public health	2012	8	1.7	8	1	2	0.8	18	1.2
	2009	9	1.7	3	0.4	0	0	12	0.8
Student/school health	2012	10	2.2	21	2.7	1	0.4	32	2.1
	2009	6	1.1	23	2.8	2	0.8	31	1.9
Hospice care	2012	22	4.7	14	1.8	17	6.7	53	3.5
	2009	25	4.7	14	1.7	10	4.1	49	3.1
Prison/correctional facility/jail	2012	8	1.7	6	0.8	1	0.4	15	1
	2009	12	2.3	4	0.5	0	0	16	1
Other	2012	36	7.8	146	18.9	23	9	205	13.5
	2009	48	9.1	92	11.2	14	5.7	154	9.7

Summary

The average Newly Licensed LPN/VPN responder was an English-speaking, White female with an average age of 33.9 years. She holds an LPN/VN diploma/certificate and primarily works in a long-term care facility caring for older adults (ages 65-85) with stabilized chronic health conditions. She has been an LPN/VN for just under one year.

The average LPN/VN Educator responder was an English-speaking, White female with an average age of 51 years. She held an RN baccalaureate degree from an institution within the U.S. She primarily works in a hospital caring for adults ranging from 18 to 85 with acute conditions. On average, she has been an LPN/VN Educator for 10.1 years.

The average LPN/VN Supervisor responder was an English-speaking, White female with an average age of 50.9 years. She held an RN associate's or baccalaureate degree from a college/university within the U.S. She works in long-term care facilities and hospitals caring for older clients (ages 65-85) exhibiting acute, as well as chronic and end-of-life conditions. On average, she exhibits the most work experience in her job title, having worked as an LPN/VN Supervisor for 12.9 years.

KNOWLEDGE STATEMENT FINDINGS

Overview of Methods

The 2012 LPN/VN Nursing Knowledge Survey asked responders to rate the importance of knowledge statements necessary for a newly licensed LPN/VN to practice safely and effectively. Responders were asked to rate the overall importance of each knowledge statement, considering safe and effective professional LPN/VN practice, regardless of practice setting. Importance was rated by using a five-point (1-5) scale.

SME Panel Validation of Survey Findings

Representativeness of Knowledge Statements

The participants were asked whether the knowledge areas listed on the survey represented knowledge a newly licensed LPN/VN should possess. A large percentage of Newly Licensed LPN/VNs (74.1%), LPN/VN Educators (61.5%) and LPN/VN Supervisors (66.2%) responded that the survey represented the necessary knowledge "very well." Moreover, 94.8% of Newly Licensed LPN/VNs, 90.9% of LPN/VN Educators and 90.0% of LPN/VN Supervisors noted that the knowledge statements covered the knowledge of a newly licensed LPN/VN "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 0.99 for this survey instrument suggests this survey is reliably measuring the knowledge a newly licensed LPN/VN needs for safe and effective practice.

Knowledge Statements

Importance of Knowledge Statements

The safe and effective practice of newly licensed LPN/VNs 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 LPN/VN 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 and 5=Critically Important. Average importance ratings were calculated by including all importance ratings regardless of practice setting.

The five most important and the five least important knowledge statements for all groups are shown in Table 6, along with the ratings they received. It is important to note that because some of the knowledge statements share the same average importance rating, Table 6 does not include all of the statements with the highest and lowest ratings. Appendices D through G contain complete lists of knowledge statement ratings rank ordered according to importance for each of the four groups.

Newly Licensed LPN/VNs, LPN/VN Educators, LPN/VN Supervisors and SMEs rated "medication administration protocols (e.g., heart rate, blood glucose, blood pressure)" among the five most important knowledge statements, while Newly Licensed LPN/VNs, LPN/VN Educators and SMEs rated "client safety" among the five most important knowledge statements. In terms of least important knowledge statements, the groups rated "group session participation," "reminiscence therapy" and "central venous catheter blood draw" to be among the five least important knowledge statements. These groups of statements were contrasted in Tables 7 and 8 with those from the 2009 survey.

The average importance ratings sorted by primary job title (Newly Licensed LPN/VN, LPN/VN Educator and LPN/VN Supervisor) for all of the knowledge statements are presented in Table 9. 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. Since a different set of statements were used in 2009, it would not be possible to make individual comparisons between the two years.

Table 6. Most Important and Least Important Knowledge Statements with Ratings

Most Important Knowledge Statements							
Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor		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)
Signs and symptoms of allergic reaction	4.84	Medication administration	4.89	Medication administration	4.77	Client safety	4.88
Medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	4.82	Medication safety	4.89	Abnormal findings	4.76	Client status and condition	4.88
Medication administration	4.81	Client safety	4.87	Medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	4.76	Infection control	4.88
Client safety	4.80	Medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	4.86	Signs and symptoms of hypoglycemia	4.75	Medication administration devices (e.g., syringes, needles)	4.88
Signs and symptoms of hypoglycemia	4.79	Medication administration devices (e.g., syringes, needles)	4.83	Signs and symptoms of allergic reaction	4.75	Medication rights	4.88
Least Important Knowledge Statements							
Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor		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)
Group session participation	3.52	Central venous catheter blood draw	2.56	Central venous catheter blood draw	2.72	Reminiscence therapy	2.50
Alternative/complementary therapies	3.57	Ventilators	3.08	Fetal heart monitoring	2.90	Pacemaker devices	2.75
Reminiscence therapy	3.57	Fetal heart monitoring	3.15	Group session participation	2.96	Central venous catheter blood draw	3.13
Referral process	3.72	Group session participation	3.15	Stages of labor	2.97	Electrocardiogram (EKG/ECG)	3.13
Time-out procedure	3.75	Central venous catheter maintenance	3.17	Reminiscence therapy	2.98	Validation therapy	3.14

Table 7. Most Important Knowledge Statements from 2012 and 2009 Surveys

Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor	
2012	2009	2012	2009	2012	2009
Signs and symptoms of allergic reaction	Vital signs	Medication administration	How to correctly identify client	Medication administration	Vital signs
Medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	Aseptic and sterile techniques	Medication safety	Rights of medication administration	Abnormal findings	Critical signs and symptoms
Medication administration	Signs and symptoms of allergic reaction	Client safety	Vital signs	Medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	Rights of medication administration
Client safety	Critical signs and symptoms	Medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	Aseptic and sterile techniques	Signs and symptoms of hypoglycemia	Aseptic and sterile techniques
Signs and symptoms of hypoglycemia	Infection control	Medication administration devices (e.g., syringes, needles)	Confidentiality	Signs and symptoms of allergic reaction	Standard/ universal precautions

Table 8. Least Important Knowledge Statements from 2012 and 2009 Surveys

Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor	
2012	2009	2012	2009	2012	2009
Group session participation	Insurance requirements	Central venous catheter blood draw	Insurance requirement	Central venous catheter blood draw	Insurance requirements
Alternative/complementary therapies	Inventory control	Ventilators	Inventory control	Fetal heart monitoring	Inventory control
Reminiscence therapy	Alternative/complementary therapy	Fetal heart monitoring	Fetal monitoring	Group session participation	Alternative/complementary therapy
Referral process	Referral process	Group session participation	Fiscal responsibility	Stages of labor	Community resources
Time-out procedure	Learning styles	Central venous catheter maintenance	Alternative/complementary therapy	Reminiscence therapy	Fiscal responsibility

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
1	abnormal findings	454	4.71	0.03	768	4.8	0.02	250	4.76	0.03
2	acceptable abbreviations	453	4.03	0.04	764	4.21	0.03	251	3.98	0.06
3	activities of daily living (ADLs)	452	3.95	0.04	762	4.11	0.03	250	4.02	0.05
4	adaptive equipment	452	3.9	0.04	755	3.75	0.03	250	3.63	0.05
5	advance directives	454	4.18	0.04	761	4.06	0.03	249	4.05	0.05
6	age specific requirements for care	451	4	0.04	762	4.2	0.03	250	3.94	0.05
7	allergies	453	4.61	0.03	754	4.69	0.02	250	4.51	0.05
8	alternative/ complementary therapies	448	3.57	0.04	760	3.32	0.03	249	3.25	0.06
9	anatomy and physiology principles	448	4.23	0.04	764	4.43	0.02	249	4.35	0.04
10	aseptic and sterile techniques	454	4.71	0.03	763	4.79	0.02	249	4.54	0.04
11	assignment/delegation	453	3.96	0.04	766	3.91	0.03	251	3.7	0.06
12	availability of resources (e.g., community, referral, interdisciplinary team)	453	3.75	0.04	761	3.58	0.03	249	3.3	0.06
13	basic cardiac rhythms	453	4.19	0.04	765	3.63	0.04	249	3.58	0.07
14	basic life support (BLS)	452	4.54	0.04	761	4.74	0.02	249	4.51	0.05
15	basic mathematics	450	4.11	0.04	762	4.47	0.03	251	4.12	0.05
16	behavioral disorders	452	3.81	0.04	767	3.68	0.03	251	3.68	0.05
17	behavioral management	452	3.84	0.04	762	3.71	0.03	250	3.7	0.05
18	bladder and bowel training procedures	454	3.87	0.04	761	3.76	0.03	251	3.66	0.05
19	blood glucose monitoring	454	4.59	0.03	765	4.53	0.02	249	4.43	0.04
20	blood product administration	452	4.1	0.06	762	3.6	0.04	250	3.29	0.09
21	body mechanics	451	4.14	0.04	760	4.31	0.03	248	4.12	0.05
22	cardiac monitoring	453	4.24	0.05	759	3.28	0.04	248	3.3	0.08
23	central venous catheter blood draw	452	3.82	0.06	761	2.56	0.05	250	2.72	0.09
24	central venous catheter maintenance	451	4.01	0.06	757	3.17	0.05	252	3.28	0.08
25	chain of command	455	3.97	0.04	766	4.13	0.03	251	4	0.06
26	chemical toxicity	450	4.27	0.04	761	3.85	0.03	250	3.78	0.06
27	circulatory status data collection	452	4.19	0.04	764	4.4	0.03	251	4.02	0.05
28	client abilities and limitations	454	4.13	0.04	761	4.23	0.02	251	3.94	0.05

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
29	client advocacy	451	4.23	0.04	766	4.33	0.02	250	3.98	0.05
30	client circulatory status	453	4.44	0.03	764	4.53	0.02	249	4.19	0.05
31	client data sources	453	3.9	0.04	766	3.9	0.03	251	3.54	0.06
32	client dignity	453	4.4	0.03	762	4.51	0.02	251	4.36	0.05
33	client education	454	4.27	0.04	765	4.28	0.03	250	4.1	0.05
34	client history	453	4.37	0.03	765	4.3	0.03	249	4.16	0.05
35	client identification process	455	4.58	0.03	763	4.75	0.02	251	4.53	0.04
36	client medical records	452	4.33	0.03	766	4.16	0.03	248	4.02	0.06
37	client monitoring	455	4.49	0.03	766	4.56	0.02	249	4.42	0.04
38	client needs	455	4.41	0.03	763	4.52	0.02	248	4.38	0.04
39	client neurological status	454	4.62	0.03	765	4.61	0.02	249	4.35	0.04
40	client physical observations	453	4.38	0.03	762	4.6	0.02	247	4.49	0.04
41	client plan of care	450	4.3	0.03	764	4.21	0.03	249	4.2	0.05
42	client positioning	455	4.35	0.04	761	4.37	0.02	250	4.22	0.04
43	client preferences (e.g., religious, spiritual, cultural, health choices)	457	4.04	0.04	766	3.98	0.03	250	3.79	0.05
44	client privacy	453	4.4	0.03	765	4.52	0.02	250	4.38	0.04
45	client rights and responsibilities	454	4.38	0.03	766	4.5	0.02	250	4.39	0.04
46	client safety	451	4.8	0.02	764	4.87	0.01	248	4.75	0.03
47	client status and condition	454	4.64	0.03	759	4.66	0.02	249	4.53	0.04
48	client stressors (e.g., lifestyle, body changes, environmental)	452	4.15	0.03	766	4	0.03	248	3.83	0.05
49	client-centered care	453	4.27	0.03	762	4.28	0.03	245	4.16	0.05
50	clients with special needs (e.g., newborn complications, developmental delays, Down syndrome)	451	4.26	0.04	767	3.94	0.03	249	3.68	0.06
51	code of ethics	455	4.36	0.03	765	4.55	0.02	249	4.36	0.05
52	collaboration	451	4.15	0.03	762	4.18	0.03	248	4.08	0.05
53	communication barriers	455	4.19	0.04	763	4.19	0.02	249	3.99	0.05
54	communication techniques	454	4.21	0.03	762	4.35	0.02	249	4.12	0.05
55	complications of labor	453	4.11	0.06	761	3.45	0.04	247	3.21	0.08
56	compression stockings/ sequential compression devices (SCD)	453	4.11	0.04	762	4.1	0.03	249	3.78	0.06
57	conflict resolution	454	3.96	0.04	766	4.03	0.03	248	4	0.05

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
58	continuing education	452	4.15	0.04	762	4.14	0.03	250	3.97	0.05
59	continuity of care	453	4.21	0.03	763	4.16	0.03	250	4.08	0.05
60	coordination of care	452	4.14	0.03	765	4.04	0.03	250	3.96	0.05
61	coping mechanisms	448	3.99	0.04	764	3.92	0.03	249	3.81	0.05
62	cost effective care	454	3.82	0.04	766	3.74	0.03	250	3.62	0.06
63	data collection	450	4.33	0.03	765	4.33	0.03	248	3.83	0.06
64	de-escalation techniques	447	3.9	0.04	763	3.82	0.03	249	3.75	0.06
65	diagnostic testing	454	4.13	0.04	763	4	0.03	249	3.8	0.05
66	dietary restrictions	454	4.23	0.04	763	4.15	0.03	249	3.96	0.05
67	discharge process	453	3.88	0.04	765	3.85	0.03	249	3.79	0.05
68	disease processes	449	4.37	0.04	764	4.46	0.02	248	4.27	0.04
69	documentation	453	4.72	0.02	764	4.68	0.02	249	4.62	0.03
70	dosage calculation	450	4.68	0.03	763	4.77	0.02	248	4.46	0.05
71	drainage devices	451	4.04	0.04	759	3.99	0.03	248	3.83	0.05
72	education techniques (e.g., return demonstrations, pamphlet, instruction)	453	4.02	0.04	765	3.93	0.03	247	3.8	0.06
73	electrocardiogram (EKG/ECG)	456	4.02	0.05	765	3.34	0.04	250	3.23	0.07
74	emergency procedures	449	4.63	0.03	765	4.36	0.03	249	4.32	0.05
75	emotional support to client	451	4.17	0.04	762	4.23	0.02	246	4.02	0.05
76	endotracheal devices	453	4.23	0.05	762	3.49	0.04	250	3.48	0.07
77	enteral tube feeding procedures	452	4.29	0.04	764	4.21	0.03	249	4.07	0.05
78	enteral tubes	448	4.25	0.04	763	4.16	0.03	248	4.07	0.05
79	equipment safety check	455	4.39	0.04	763	4.23	0.03	249	4.04	0.05
80	equipment usage	453	4.28	0.04	758	4.13	0.03	246	4.04	0.05
81	evidence-based practice	453	4.05	0.04	759	4.07	0.03	248	3.96	0.06
82	fetal heart monitoring	455	4.08	0.06	757	3.15	0.04	246	2.9	0.09
83	gastrointestinal tube feeding administration procedure	450	4.28	0.04	764	4.28	0.03	245	4.09	0.05
84	goal-driven interventions for plan of care	448	4.01	0.04	759	3.88	0.03	248	3.79	0.05
85	group session participation	451	3.52	0.05	762	3.15	0.04	249	2.96	0.07
86	hazardous conditions	454	4.21	0.05	764	4.11	0.03	249	3.96	0.06
87	healthcare access	453	4	0.04	765	3.69	0.03	247	3.4	0.06
88	high risk behaviors	453	4.15	0.04	761	3.92	0.03	252	3.78	0.06

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
89	HIPAA	453	4.66	0.03	762	4.74	0.02	252	4.6	0.04
90	immobility related complications	451	4.31	0.03	762	4.39	0.03	249	4.18	0.05
91	immunizations	451	4.07	0.04	759	3.92	0.03	251	3.75	0.06
92	impairments (e.g., chemical, physical, emotional)	452	4.12	0.04	759	3.91	0.03	251	3.86	0.05
93	incident reporting	454	4.36	0.03	759	4.17	0.03	249	4.19	0.05
94	infection control	450	4.71	0.03	760	4.74	0.02	249	4.62	0.04
95	information technology	454	3.85	0.04	761	3.82	0.03	252	3.72	0.06
96	informed consent	454	4.44	0.04	760	4.39	0.03	252	4.17	0.05
97	intake/output procedures	451	4.18	0.04	760	4.34	0.03	249	3.97	0.05
98	interdisciplinary providers	453	3.8	0.04	756	3.56	0.03	251	3.47	0.06
99	intravenous equipment	451	4.15	0.05	757	3.91	0.03	250	3.82	0.06
100	intravenous piggyback (secondary) medications	452	4.16	0.05	758	3.91	0.04	250	3.84	0.07
101	irrigation procedures	453	4.13	0.04	756	3.94	0.03	250	3.9	0.05
102	isolation protocols	450	4.48	0.04	760	4.51	0.02	252	4.29	0.05
103	laboratory values	450	4.54	0.03	759	4.36	0.03	251	4.15	0.05
104	least restrictive environment	446	3.85	0.04	752	3.79	0.03	248	3.69	0.06
105	legal scope of practice	449	4.55	0.03	758	4.7	0.02	250	4.53	0.04
106	licensure requirements	453	4.45	0.03	755	4.58	0.02	251	4.45	0.05
107	mandatory reporting guidelines	450	4.3	0.04	756	4.4	0.03	250	4.34	0.05
108	material safety data sheets (MSDS)	451	4	0.04	757	3.68	0.03	250	3.65	0.06
109	measurement conversions	453	4.27	0.04	756	4.31	0.03	249	3.94	0.06
110	medication administration	453	4.81	0.02	757	4.89	0.01	247	4.77	0.03
111	medication administration devices (e.g., syringes, needles)	453	4.75	0.02	759	4.83	0.02	252	4.71	0.03
112	medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	452	4.82	0.02	752	4.86	0.01	253	4.76	0.03
113	medication adverse reactions	452	4.75	0.02	756	4.78	0.02	251	4.66	0.03
114	medication classifications	453	4.43	0.04	758	4.49	0.02	251	4.27	0.05

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
115	medication compatibilities (e.g., prescription, non-prescription)	453	4.54	0.03	761	4.52	0.03	251	4.39	0.05
116	medication indications	452	4.5	0.03	756	4.55	0.02	250	4.38	0.04
117	medication names (e.g., generic versus trade names)	453	4.38	0.04	759	4.38	0.03	249	4.22	0.05
118	medication preparation	452	4.63	0.03	755	4.7	0.02	251	4.5	0.04
119	medication reconciliation	450	4.48	0.03	754	4.45	0.03	250	4.42	0.05
120	medication rights	454	4.65	0.03	756	4.8	0.02	251	4.58	0.04
121	medication safety	453	4.78	0.02	758	4.89	0.01	251	4.7	0.03
122	medication side effects	452	4.68	0.03	754	4.68	0.02	248	4.53	0.04
123	medication storage practice	450	4.49	0.03	760	4.37	0.03	248	4.27	0.05
124	medication therapeutic effects	453	4.5	0.03	757	4.59	0.02	251	4.35	0.04
125	medication/dietary interaction	452	4.49	0.03	756	4.42	0.03	249	4.21	0.05
126	mobility techniques	449	4.02	0.04	754	4.05	0.03	249	3.82	0.05
127	nasogastric (NG) tube insertion	451	4.17	0.05	754	3.86	0.04	250	3.48	0.08
128	nasogastric (NG) tube maintenance	453	4.22	0.05	756	4.13	0.03	249	3.73	0.07
129	nasogastric (NG) tube removal	453	4.12	0.05	755	4.01	0.03	251	3.59	0.07
130	nasogastric (NG) tube suctioning	452	4.23	0.05	753	4.07	0.03	249	3.69	0.07
131	neurological status data collection	454	4.42	0.04	756	4.44	0.03	248	4.09	0.06
132	newborn care	454	4.03	0.06	757	3.5	0.04	249	3.08	0.08
133	non-pharmacological interventions for pain relief	455	4.02	0.04	761	4.14	0.03	253	4.06	0.05
134	non-pharmacological sleep interventions	456	3.86	0.04	762	3.97	0.03	251	3.87	0.05
135	nonverbal indicators of pain	453	4.38	0.03	760	4.35	0.02	250	4.38	0.04
136	nursing interventions	454	4.47	0.03	754	4.55	0.02	247	4.43	0.04
137	nutritional formulas	452	3.88	0.04	759	3.45	0.03	248	3.38	0.06
138	nutritional needs	453	4.11	0.04	757	3.99	0.03	250	3.79	0.05
139	objective data collection	454	4.34	0.03	758	4.46	0.02	248	4.06	0.06
140	order from the health care provider	454	4.52	0.03	757	4.43	0.03	246	4.29	0.05

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
141	orthosis (e.g., traction, splint, brace)	451	3.94	0.04	760	3.66	0.03	248	3.53	0.06
142	ostomy care	454	4.19	0.04	759	3.93	0.03	247	3.92	0.05
143	ostomy devices	451	4.13	0.04	759	3.88	0.03	250	3.9	0.05
144	oxygen saturation	453	4.67	0.03	756	4.55	0.02	249	4.42	0.04
145	pacemaker devices	453	4.32	0.04	757	3.59	0.03	247	3.68	0.06
146	pain rating scales	456	4.37	0.03	756	4.53	0.02	244	4.45	0.04
147	peripheral intravenous (IV) catheter insertion	452	4.15	0.05	758	3.74	0.04	250	3.84	0.08
148	peripheral intravenous (IV) catheter maintenance	456	4.25	0.05	760	4.19	0.03	248	4.1	0.06
149	peripheral intravenous (IV) catheter removal	454	4.16	0.05	759	4.12	0.03	250	4.02	0.06
150	personal/professional limitations	454	4.26	0.04	759	4.52	0.02	250	4.42	0.05
151	postmortem care	453	3.87	0.05	755	3.69	0.03	250	3.51	0.06
152	postpartum care	452	3.91	0.05	759	3.55	0.04	251	3.16	0.08
153	potential client risks	452	4.25	0.04	758	4.23	0.03	249	3.84	0.06
154	prenatal complication	454	4.09	0.05	760	3.53	0.04	249	3.16	0.08
155	preventative health care	452	4.15	0.04	756	4.11	0.03	250	3.75	0.06
156	prior level of ADL functioning	451	4.08	0.04	755	4.01	0.03	249	3.86	0.05
157	prioritization of client care based on their conditions	451	4.41	0.04	759	4.5	0.02	250	4.25	0.05
158	professional code of conduct	454	4.33	0.03	760	4.58	0.02	248	4.46	0.04
159	professional development	454	4.12	0.04	759	4.13	0.03	251	4.07	0.05
160	psychological barriers	450	4.01	0.04	756	3.87	0.03	250	3.74	0.05
161	psychosocial implications of isolation	450	4.04	0.04	762	3.84	0.03	249	3.72	0.05
162	psychosocial needs	453	4.1	0.04	762	4.03	0.03	247	3.9	0.05
163	quality improvement (QI)	453	3.99	0.04	761	3.68	0.03	248	3.81	0.05
164	range of motion	454	4.07	0.04	758	4.11	0.03	248	3.92	0.05
165	reality orientation	454	3.97	0.04	755	3.91	0.03	250	3.67	0.06
166	recommended health screening	453	3.91	0.04	757	3.73	0.03	248	3.35	0.06
167	referral process	455	3.72	0.05	759	3.42	0.03	248	3.25	0.06
168	remembrance therapy	451	3.57	0.05	758	3.22	0.04	249	2.98	0.06
169	reporting process	451	4.19	0.04	754	4.15	0.03	250	4.08	0.05
170	respiratory status	451	4.72	0.03	755	4.74	0.02	246	4.54	0.04

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
171	restraints	451	3.98	0.05	757	4.2	0.03	244	4.01	0.07
172	seclusion protocols	452	3.87	0.05	758	3.63	0.04	250	3.61	0.08
173	security alert	451	4.16	0.04	752	4.07	0.03	250	3.96	0.06
174	self-advocacy	453	4.05	0.04	759	3.96	0.03	247	3.69	0.06
175	sensory/perceptual alterations	454	4.12	0.04	756	4.11	0.03	246	3.79	0.06
176	signs and symptoms of acute illness	454	4.62	0.03	757	4.65	0.02	247	4.67	0.03
177	signs and symptoms of allergic reaction	454	4.84	0.02	758	4.81	0.02	245	4.75	0.03
178	signs and symptoms of chronic illness	454	4.48	0.03	766	4.37	0.02	251	4.36	0.04
179	signs and symptoms of hyperglycemia	454	4.77	0.02	766	4.75	0.02	249	4.72	0.03
180	signs and symptoms of hypoglycemia	453	4.79	0.02	767	4.83	0.02	248	4.75	0.03
181	signs and symptoms of impending complications	451	4.68	0.03	765	4.7	0.02	249	4.62	0.03
182	skills and capabilities of assistive personnel	447	4.17	0.04	767	4.07	0.03	249	3.8	0.06
183	skin care	452	4.34	0.03	766	4.37	0.02	249	4.28	0.05
184	skin integrity	454	4.46	0.03	766	4.43	0.02	245	4.36	0.04
185	specimen collection procedure	453	4.29	0.03	764	4.14	0.03	249	4.03	0.05
186	staff education	450	4.13	0.04	768	3.62	0.03	250	3.66	0.06
187	staff roles and responsibilities	456	4.18	0.04	768	3.92	0.03	251	3.83	0.05
188	staff safety	453	4.36	0.03	766	4.16	0.03	247	4.06	0.05
189	stages of grieving	453	4	0.04	768	3.86	0.03	249	3.69	0.05
190	stages of growth and development	454	3.91	0.05	766	3.9	0.03	249	3.41	0.06
191	stages of labor	455	3.87	0.06	767	3.33	0.04	248	2.97	0.08
192	stages of pregnancy	453	3.82	0.05	761	3.34	0.04	247	2.99	0.08
193	standard/universal precautions	455	4.64	0.03	766	4.76	0.02	248	4.6	0.04
194	standards of care	454	4.41	0.03	766	4.51	0.02	247	4.46	0.04
195	substance abuse	456	4.05	0.04	769	3.9	0.03	249	3.68	0.06
196	substance abuse withdrawal	455	4.11	0.04	765	3.95	0.03	249	3.66	0.06
197	supervisory skills	454	4	0.04	768	3.47	0.03	249	3.47	0.07
198	surgical procedure	454	4	0.05	766	3.46	0.04	248	3.22	0.07
199	suture or staple removal	454	3.93	0.05	767	3.72	0.04	250	3.54	0.06

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge of:	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
200	techniques of client handling	451	4.15	0.04	765	4.05	0.03	248	3.81	0.05
201	temperature regulation interventions	447	4.17	0.04	767	4.11	0.03	250	3.76	0.06
202	therapeutic environment	453	4.02	0.04	765	3.98	0.03	250	3.66	0.05
203	time-out procedure	453	3.75	0.05	762	3.61	0.04	246	3.33	0.08
204	tracheostomy care	453	4.33	0.04	767	4.04	0.03	247	3.96	0.06
205	tracheostomy devices	452	4.28	0.04	765	3.94	0.03	248	3.88	0.06
206	transfer process	451	4.15	0.04	765	4.04	0.03	248	3.88	0.05
207	transfer techniques	452	4.18	0.04	760	4.18	0.03	248	4.03	0.05
208	types of incontinence	454	3.98	0.04	763	3.85	0.03	249	3.8	0.05
209	types of pain	453	4.35	0.03	763	4.31	0.03	246	4.31	0.05
210	urinary catheter insertion techniques	452	4.49	0.04	767	4.5	0.02	251	4.35	0.05
211	urinary catheter maintenance	453	4.42	0.04	769	4.44	0.02	247	4.33	0.04
212	urinary catheter removal techniques	455	4.31	0.04	766	4.36	0.03	248	4.29	0.05
213	urinary retention	455	4.29	0.04	763	4.22	0.03	246	4.19	0.05
214	validation therapy	451	3.83	0.05	756	3.29	0.04	246	3.18	0.07
215	venipuncture for blood draws	454	4.15	0.05	766	3.42	0.04	249	3.36	0.07
216	ventilators	454	4.2	0.05	760	3.08	0.04	247	3.1	0.09
217	vital signs	456	4.78	0.02	766	4.82	0.02	249	4.67	0.04
218	workplace violence	453	4.07	0.04	766	3.94	0.03	248	3.83	0.06
219	wound care	456	4.58	0.03	768	4.46	0.02	249	4.42	0.04

Knowledge Statement Subgroup Analysis

Primary Job Title

The average knowledge statement importance ratings of Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors were cross-analyzed for meaningful differences between these job titles. Appendix H presents each knowledge statement's average value for each primary job title. The least important knowledge statement for LPN/VN Educators and LPN/VN Supervisors was "central venous catheter blood draw," with an average value of 2.56 and 2.72, respectively. Newly Licensed LPN/VNs rated "group session participation" the lowest, with an average value of 3.52. The most important knowledge statement for LPN/VN Educators and LPN/VN Supervisors was "medication administration," with an average value of 4.89 and 4.77, respectively. Newly Licensed LPN/VNs rated "signs and symptoms of allergic reactions" the highest, with an average value of 4.84. 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, community-based facilities and other facilities were cross-analyzed for meaningful differences. Responders working in hospital, long-term care and other facilities rated "central venous catheter blood draw" as the least important knowledge statement, with average values of 2.65, 3.20 and 2.83, respectively. Responders working in community-based facilities rated "reminiscence therapy" the lowest, with an average value of 3.33. The most important knowledge statement for responders working in hospitals and community-based facilities was "client safety," with average values of 4.86 and

4.83, respectively. Individuals working in long-term care facilities rated "medication administration" highest, with an average value of 4.86. Responders working in "other" facilities rated "medication administration protocols (e.g., heart rate, blood glucose, blood pressure) highest, with an average rating of 4.85. Average importance values for all knowledge statements by facilities are listed in Appendix I.

Summary

Responders to the 2012 LPN/VN Nursing Knowledge Survey found the statements listed in the survey to be representative of the knowledge necessary for safe and effective professional practice of newly licensed LPN/VNs. There were similar importance ratings of the knowledge statements for Newly Licensed LPN/VNs, LPN/VN Educators, LPN/VN Supervisors and SMEs.

CONCLUSION

Based on the reliability of the knowledge statement instrument, the survey of the nonresponders, the validation of the knowledge statement importance ratings by SMEs and the similarity of knowledge statement importance ratings by Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors, the results of this survey can be used to inform item development.

REFERENCES

- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1999). *The standards for educational and psychological testing*. Washington, DC: American Psychological Association.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- NCSBN. (2010a). *Report of findings from the 2009 LPN/VN nursing knowledge survey*. Chicago: NCSBN.
- NCSBN. (2010b). *Report of findings from the 2009 LPN/VN practice analysis: Linking the NCLEX-PN® examination to practice*. Chicago: NCSBN.

APPENDIX A: 2012 KNOWLEDGE SURVEY METHODOLOGY REVIEWERS

Michael C. Edwards, PhD, is an associate professor at The Ohio State University department of Psychology. Edwards teaches courses in quantitative psychology, measurement and statistics. In addition, he consults on grants researching self-report methods of data collection and validation of assessments. Edwards has authored numerous articles related to measurement models and analysis of inventories. He has served as a manuscript reviewer for journals in psychology, statistics and assessment, including *Applied Psychological Measurement*, *Educational Assessment* and *Psychological Assessment*. He is currently serving on advisory committees for the College Board and the American Institute of Certified Public Accountants.

Chuck Friedman, PhD, is exam program manager at the Association of Social Work Boards. Friedman has more than 20 years of experience in professional licensure and certification examinations. In his current position, Friedman is responsible for overseeing all aspects of the examination program development, and ensuring the validity and reliability of the examinations. His past experience includes positions at Pearson Inc. and ACT Inc., where he directed credentialing departments and activities supporting more than 30 licensure and certification programs. Friedman has also served on committees for professional measurement and testing organizations, including the Council on Licensure, Enforcement and Regulation (CLEAR), and the Association of Test Publishers (ATP). In addition, Friedman has published manuscripts and given numerous presentations on the development of certification and licensure examinations.

Phoebe Winter, PhD, is vice president of education policy at Pacific Metrics Corporation. She assists in the design and implementation of research to enhance assessment validity, monitors changes in policies related to assessment, and advises stakeholders on the implications of legislation for assessment. Winter's previous experience includes nearly 30 years of experience in testing in positions where she was responsible for directing research projects for large-scale assessments, designing assessment instruments, and designing and evaluating assessment systems and programs. Her publications and presentations include extensive work on assessment design and validation, as well as accountability and policy implications. In addition, Winter has served as a proposal and manuscript reviewer for such journals as *Educational Measurement: Issues and Practices* and on committees at such organizations as the National Council on Measurement in Education.

APPENDIX B: SUBJECT MATTER EXPERT PANEL FOR THE 2012 KNOWLEDGE OF NEWLY LICENSED LPN/VN SURVEY

Area I

Member:	Isaac Steele, LPN
Board:	Washington State Nursing Care Quality Assurance Commission
Specialty:	Dementia and Long-term Care

Steele has five years of nursing experience and is a floor nurse at Martha and Mary Healthcare Services. As a mentor in his facility, Steele is responsible for orienting and training recently hired newly licensed nurses, as well as being a designated resource for all new nurses.

Member:	Nadine Smith, RN, LNHA, BHCA
Board:	Hawaii Board of Nursing
Specialty:	Geriatrics

Smith has 33 years of nursing experience and is the chief operating officer at Ohana Pacific Management Company. She provides educational training on best nursing practice at four facilities for her company. Smith provides some direct observations of new nurses, and assists new graduates with prioritizing, organizational skills, clinical assessments and process evaluation.

Area II

Member:	Susan Goulding, LPN
Board:	North Dakota Board of Nursing
Specialty:	Family Practice, Internal Medicine, Geriatrics, Telemedicine

Goulding has six years of nursing experience and is a clinic office nurse with Altru Health System. The clinic is currently undergoing a large expansion, so she is frequently working with entry-level nurses teaching them the electronic charting and filing system, as well as what is expected of them clinically. Goulding is also the director of the Devils Lake Region Scrubs Camp, which communicates to the public the many health care careers that are available.

Area III

Member:	Amy McEwen, LPN
Board:	Florida Board of Nursing
Specialty:	Medical-Surgical, ICU, IV Therapies

McEwen has 22 years of nursing experience and is delivering nursing care at Arcadia Medical Associates and Desoto Memorial Hospital. She routinely acts in the role of preceptor and is currently orientating newly licensed practical nurses (LPNs) to the unit. McEwen has also worked in many other areas of nursing, including school nursing, medical/surgical, ER and ICU.

- Member:** Sara Lee, LPN
Board: Georgia Board of Examiners of Licensed Practical Nurses
Specialty: Mother/Baby

Lee has 40 years of nursing experience and is a staff nurse in the Level I Nursery and Mother/Baby unit at Tift Regional Medical Center. She is a member of the peer interview panel at her institution and when she is precepting a newly licensed LPN, Lee reviews policy and procedures with them, as well as demonstrates the process of receiving babies on her unit. In her 40 years of nursing, she has also worked in many other areas of nursing, including pharmacy, ER, ICU, and medical/surgical units.

- Member:** Rose Johnson, RN
Board: Louisiana State Board of Nursing
Specialty: Emergency Room Nursing

Johnson has 12 years of nursing experience and is currently the nursing supervisor at Springhill Medical Center, where she has the opportunity to mentor newly licensed nurses. Johnson is a member of the Louisiana State Nurses Association and the Emergency Nurses Association.

- Member:** John Wood, LVN
Board: Texas Board of Nursing
Specialty: Psychiatric and Mental Health

Wood is a newly licensed LVN, obtaining his license in January 2011. He currently works in the Child and Adolescent division of Austin State Hospital. Wood is a "super user" for his institution's computer program and assists other nurses in becoming proficient with the computer program. He is also a member of the Nursing Advocacy Committee.

Area IV

- Member:** Tammy LeVan, LPN
Board: Pennsylvania State Board of Nursing
Specialty: Drug and Alcohol Outpatient Treatment/Methadone Maintenance

LeVan has six years of nursing experience and is currently the nursing supervisor at Esper Treatment Center. She is responsible for the interview process and hiring of nursing staff. Once a newly licensed LPN is hired, it is LeVan's responsibility to train the nurse in all areas of practice. She works directly with the nurses to ensure patient safety, fair treatment and proper documentation occurs.

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 select the degree of importance, whether or not it applies to your practice setting. For each knowledge statement, one question is asked:

Question - Importance:

How important is the possession of this knowledge by a newly licensed LPN/VN for safe and effective professional practice, regardless of specific practice setting? (Select one).

- 1 = Not Important
- 2 = Minimally Important
- 3 = Moderately Important
- 4 = Important
- 5 = Critically Important

IMPORTANCE

	1 Not Important	2 Minimally Important	3 Moderately Important	4 Important	5 Critically Important
1. abnormal findings	1	2	3	4	5
2. acceptable abbreviations	1	2	3	4	5
3. activities of daily living (ADLs)	1	2	3	4	5
4. adaptive equipment	1	2	3	4	5
5. advance directives	1	2	3	4	5
6. age specific requirements for care	1	2	3	4	5
7. allergies	1	2	3	4	5
8. alternative/complementary therapies	1	2	3	4	5
9. anatomy and physiology principles	1	2	3	4	5
10. aseptic and sterile techniques	1	2	3	4	5
11. assignment/delegation	1	2	3	4	5
12. availability of resources (e.g., community, referral, interdisciplinary team)	1	2	3	4	5
13. basic cardiac rhythms	1	2	3	4	5
14. basic life support (BLS)	1	2	3	4	5
15. basic mathematics	1	2	3	4	5
16. behavioral disorders	1	2	3	4	5
17. behavioral management	1	2	3	4	5
18. bladder and bowel training procedures	1	2	3	4	5
19. blood glucose monitoring	1	2	3	4	5
20. blood product administration	1	2	3	4	5
21. body mechanics	1	2	3	4	5
22. cardiac monitoring	1	2	3	4	5
23. central venous catheter blood draw	1	2	3	4	5
24. central venous catheter maintenance	1	2	3	4	5
25. chain of command	1	2	3	4	5
26. chemical toxicity	1	2	3	4	5
27. circulatory status data collection	1	2	3	4	5
28. client abilities and limitations	1	2	3	4	5
29. client advocacy	1	2	3	4	5
30. client circulatory status	1	2	3	4	5
31. client data sources	1	2	3	4	5
32. client dignity	1	2	3	4	5
33. client education	1	2	3	4	5
34. client history	1	2	3	4	5
35. client identification process	1	2	3	4	5
36. client medical records	1	2	3	4	5
37. client monitoring	1	2	3	4	5
38. client needs	1	2	3	4	5
39. client neurological status	1	2	3	4	5
40. client physical observations	1	2	3	4	5
41. client plan of care	1	2	3	4	5
42. client positioning	1	2	3	4	5

KNOWLEDGE OF:

1. abnormal findings
2. acceptable abbreviations
3. activities of daily living (ADLs)
4. adaptive equipment
5. advance directives
6. age specific requirements for care
7. allergies
8. alternative/complementary therapies
9. anatomy and physiology principles
10. aseptic and sterile techniques
11. assignment/delegation
12. availability of resources (e.g., community, referral, interdisciplinary team)
13. basic cardiac rhythms
14. basic life support (BLS)
15. basic mathematics
16. behavioral disorders
17. behavioral management
18. bladder and bowel training procedures
19. blood glucose monitoring
20. blood product administration
21. body mechanics
22. cardiac monitoring
23. central venous catheter blood draw
24. central venous catheter maintenance
25. chain of command
26. chemical toxicity
27. circulatory status data collection
28. client abilities and limitations
29. client advocacy
30. client circulatory status
31. client data sources
32. client dignity
33. client education
34. client history
35. client identification process
36. client medical records
37. client monitoring
38. client needs
39. client neurological status
40. client physical observations
41. client plan of care
42. client positioning

SECTION 1: KNOWLEDGE STATEMENTS *(continued)*

Question - Importance:

How important is the possession of this knowledge by a newly licensed LPN/VN for safe and effective professional practice, regardless of specific practice setting? (Select one).

- 1 = Not Important
 2 = Minimally Important
 3 = Moderately Important
 4 = Important
 5 = Critically Important

IMPORTANCE

KNOWLEDGE OF:

	1 Not Important	2 Minimally Important	3 Moderately Important	4 Important	5 Critically Important
43. client preferences (e.g., religious, spiritual, cultural, health choices)	1	2	3	4	5
44. client privacy	1	2	3	4	5
45. client rights and responsibilities	1	2	3	4	5
46. client safety	1	2	3	4	5
47. client status and condition	1	2	3	4	5
48. client stressors (e.g., lifestyle, body changes, environmental)	1	2	3	4	5
49. client-centered care	1	2	3	4	5
50. clients with special needs (e.g., newborn complications, developmental delays, down syndrome)	1	2	3	4	5
51. code of ethics	1	2	3	4	5
52. collaboration	1	2	3	4	5
53. communication barriers	1	2	3	4	5
54. communication techniques	1	2	3	4	5
55. complications of labor	1	2	3	4	5
56. compression stockings/sequential compression devices (SCD)	1	2	3	4	5
57. conflict resolution	1	2	3	4	5
58. continuing education	1	2	3	4	5
59. continuity of care	1	2	3	4	5
60. coordination of care	1	2	3	4	5
61. coping mechanisms	1	2	3	4	5
62. cost effective care	1	2	3	4	5
63. data collection	1	2	3	4	5
64. de-escalation techniques	1	2	3	4	5
65. diagnostic testing	1	2	3	4	5
66. dietary restrictions	1	2	3	4	5
67. discharge process	1	2	3	4	5
68. disease processes	1	2	3	4	5
69. documentation	1	2	3	4	5
70. dosage calculation	1	2	3	4	5
71. drainage devices	1	2	3	4	5
72. education techniques (e.g., return demonstrations, pamphlet, instruction)	1	2	3	4	5
73. electrocardiogram (EKG/ECG)	1	2	3	4	5
74. emergency procedures	1	2	3	4	5
75. emotional support to client	1	2	3	4	5
76. endotracheal devices	1	2	3	4	5
77. enteral tube feeding procedures	1	2	3	4	5
78. enteral tubes	1	2	3	4	5
79. equipment safety check	1	2	3	4	5
80. equipment usage	1	2	3	4	5
81. evidence-based practice	1	2	3	4	5
82. fetal heart monitoring	1	2	3	4	5
83. gastrointestinal tube feeding administration procedure	1	2	3	4	5
84. goal-driven interventions for plan of care	1	2	3	4	5
85. group session participation	1	2	3	4	5
86. hazardous conditions	1	2	3	4	5
87. healthcare access	1	2	3	4	5

SECTION 1: KNOWLEDGE STATEMENTS *(continued)*

Question - Importance:

How important is the possession of this knowledge by a newly licensed LPN/VN for safe and effective professional practice, regardless of specific practice setting? (Select one).

- 1 = Not Important
- 2 = Minimally Important
- 3 = Moderately Important
- 4 = Important
- 5 = Critically Important

IMPORTANCE

	1 Not Important	2 Minimally Important	3 Moderately Important	4 Important	5 Critically Important
88. high risk behaviors	1	2	3	4	5
89. HIPAA	1	2	3	4	5
90. immobility related complications	1	2	3	4	5
91. immunizations	1	2	3	4	5
92. impairments (e.g., chemical, physical, emotional)	1	2	3	4	5
93. incident reporting	1	2	3	4	5
94. infection control	1	2	3	4	5
95. information technology	1	2	3	4	5
96. informed consent	1	2	3	4	5
97. intake/output procedures	1	2	3	4	5
98. interdisciplinary providers	1	2	3	4	5
99. intravenous equipment	1	2	3	4	5
100. intravenous piggyback (secondary) medications	1	2	3	4	5
101. irrigation procedures	1	2	3	4	5
102. isolation protocols	1	2	3	4	5
103. laboratory values	1	2	3	4	5
104. least restrictive environment	1	2	3	4	5
105. legal scope of practice	1	2	3	4	5
106. licensure requirements	1	2	3	4	5
107. mandatory reporting guidelines	1	2	3	4	5
108. material safety data sheets (MSDS)	1	2	3	4	5
109. measurement conversions	1	2	3	4	5
110. medication administration	1	2	3	4	5
111. medication administration devices (e.g., syringes, needles)	1	2	3	4	5
112. medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	1	2	3	4	5
113. medication adverse reactions	1	2	3	4	5
114. medication classifications	1	2	3	4	5
115. medication compatibilities (e.g., prescription, non-prescription)	1	2	3	4	5
116. medication indications	1	2	3	4	5
117. medication names (e.g., generic versus trade names)	1	2	3	4	5
118. medication preparation	1	2	3	4	5
119. medication reconciliation	1	2	3	4	5
120. medication rights	1	2	3	4	5
121. medication safety	1	2	3	4	5
122. medication side effects	1	2	3	4	5
123. medication storage practice	1	2	3	4	5
124. medication therapeutic effects	1	2	3	4	5
125. medication/dietary interaction	1	2	3	4	5
126. mobility techniques	1	2	3	4	5
127. nasogastric (NG) tube insertion	1	2	3	4	5
128. nasogastric (NG) tube maintenance	1	2	3	4	5
129. nasogastric (NG) tube removal	1	2	3	4	5
130. nasogastric (NG) tube suctioning	1	2	3	4	5
131. neurological status data collection	1	2	3	4	5
132. newborn care	1	2	3	4	5

KNOWLEDGE OF:

- 88. high risk behaviors
- 89. HIPAA
- 90. immobility related complications
- 91. immunizations
- 92. impairments (e.g., chemical, physical, emotional)
- 93. incident reporting
- 94. infection control
- 95. information technology
- 96. informed consent
- 97. intake/output procedures
- 98. interdisciplinary providers
- 99. intravenous equipment
- 100. intravenous piggyback (secondary) medications
- 101. irrigation procedures
- 102. isolation protocols
- 103. laboratory values
- 104. least restrictive environment
- 105. legal scope of practice
- 106. licensure requirements
- 107. mandatory reporting guidelines
- 108. material safety data sheets (MSDS)
- 109. measurement conversions
- 110. medication administration
- 111. medication administration devices (e.g., syringes, needles)
- 112. medication administration protocols (e.g., heart rate, blood glucose, blood pressure)
- 113. medication adverse reactions
- 114. medication classifications
- 115. medication compatibilities (e.g., prescription, non-prescription)
- 116. medication indications
- 117. medication names (e.g., generic versus trade names)
- 118. medication preparation
- 119. medication reconciliation
- 120. medication rights
- 121. medication safety
- 122. medication side effects
- 123. medication storage practice
- 124. medication therapeutic effects
- 125. medication/dietary interaction
- 126. mobility techniques
- 127. nasogastric (NG) tube insertion
- 128. nasogastric (NG) tube maintenance
- 129. nasogastric (NG) tube removal
- 130. nasogastric (NG) tube suctioning
- 131. neurological status data collection
- 132. newborn care

SECTION 1: KNOWLEDGE STATEMENTS *(continued)*

Question - Importance:

How important is the possession of this knowledge by a newly licensed LPN/VN for safe and effective professional practice, regardless of specific practice setting? (Select one).

- 1 = Not Important
- 2 = Minimally Important
- 3 = Moderately Important
- 4 = Important
- 5 = Critically Important

	IMPORTANCE				
	1 Not Important	2 Minimally Important	3 Moderately Important	4 Important	5 Critically Important
133. non-pharmacological interventions for pain relief	1	2	3	4	5
134. non-pharmacological sleep interventions	1	2	3	4	5
135. nonverbal indicators of pain	1	2	3	4	5
136. nursing interventions	1	2	3	4	5
137. nutritional formulas	1	2	3	4	5
138. nutritional needs	1	2	3	4	5
139. objective data collection	1	2	3	4	5
140. order from the health care provider	1	2	3	4	5
141. orthosis (e.g., traction, splint, brace)	1	2	3	4	5
142. ostomy care	1	2	3	4	5
143. ostomy devices	1	2	3	4	5
144. oxygen saturation	1	2	3	4	5
145. pacemaker devices	1	2	3	4	5
146. pain rating scales	1	2	3	4	5
147. peripheral intravenous (IV) catheter insertion	1	2	3	4	5
148. peripheral intravenous (IV) catheter maintenance	1	2	3	4	5
149. peripheral intravenous (IV) catheter removal	1	2	3	4	5
150. personal/professional limitations	1	2	3	4	5
151. postmortem care	1	2	3	4	5
152. postpartum care	1	2	3	4	5
153. potential client risks	1	2	3	4	5
154. prenatal complication	1	2	3	4	5
155. preventative health care	1	2	3	4	5
156. prior level of ADL functioning	1	2	3	4	5
157. prioritization of client care based on their conditions	1	2	3	4	5
158. professional code of conduct	1	2	3	4	5
159. professional development	1	2	3	4	5
160. psychological barriers	1	2	3	4	5
161. psychosocial implications of isolation	1	2	3	4	5
162. psychosocial needs	1	2	3	4	5
163. quality improvement (QI)	1	2	3	4	5
164. range of motion	1	2	3	4	5
165. reality orientation	1	2	3	4	5
166. recommended health screening	1	2	3	4	5
167. referral process	1	2	3	4	5
168. reminiscence therapy	1	2	3	4	5
169. reporting process	1	2	3	4	5
170. respiratory status	1	2	3	4	5
171. restraints	1	2	3	4	5
172. seclusion protocols	1	2	3	4	5
173. security alert	1	2	3	4	5
174. self-advocacy	1	2	3	4	5
175. sensory/perceptual alterations	1	2	3	4	5
176. signs and symptoms of acute illness	1	2	3	4	5
177. signs and symptoms of allergic reaction	1	2	3	4	5

SECTION 1: KNOWLEDGE STATEMENTS *(continued)*

Question - Importance:

How important is the possession of this knowledge by a newly licensed LPN/VN for safe and effective professional practice, regardless of specific practice setting? (Select one).

- 1 = Not Important**
- 2 = Minimally Important**
- 3 = Moderately Important**
- 4 = Important**
- 5 = Critically Important**

IMPORTANCE

	1 Not Important	2 Minimally Important	3 Moderately Important	4 Important	5 Critically Important
178. signs and symptoms of chronic illness	1	2	3	4	5
179. signs and symptoms of hyperglycemia	1	2	3	4	5
180. signs and symptoms of hypoglycemia	1	2	3	4	5
181. signs and symptoms of impending complications	1	2	3	4	5
182. skills and capabilities of assistive personnel	1	2	3	4	5
183. skin care	1	2	3	4	5
184. skin integrity	1	2	3	4	5
185. specimen collection procedure	1	2	3	4	5
186. staff education	1	2	3	4	5
187. staff roles and responsibilities	1	2	3	4	5
188. staff safety	1	2	3	4	5
189. stages of grieving	1	2	3	4	5
190. stages of growth and development	1	2	3	4	5
191. stages of labor	1	2	3	4	5
192. stages of pregnancy	1	2	3	4	5
193. standard/universal precautions	1	2	3	4	5
194. standards of care	1	2	3	4	5
195. substance abuse	1	2	3	4	5
196. substance abuse withdrawal	1	2	3	4	5
197. supervisory skills	1	2	3	4	5
198. surgical procedure	1	2	3	4	5
199. suture or staple removal	1	2	3	4	5
200. techniques of client handling	1	2	3	4	5
201. temperature regulation interventions	1	2	3	4	5
202. therapeutic environment	1	2	3	4	5
203. time-out procedure	1	2	3	4	5
204. tracheostomy care	1	2	3	4	5
205. tracheostomy devices	1	2	3	4	5
206. transfer process	1	2	3	4	5
207. transfer techniques	1	2	3	4	5
208. types of incontinence	1	2	3	4	5
209. types of pain	1	2	3	4	5
210. urinary catheter insertion techniques	1	2	3	4	5
211. urinary catheter maintenance	1	2	3	4	5
212. urinary catheter removal techniques	1	2	3	4	5
213. urinary retention	1	2	3	4	5
214. validation therapy	1	2	3	4	5
215. venipuncture for blood draws	1	2	3	4	5
216. ventilators	1	2	3	4	5
217. vital signs	1	2	3	4	5
218. workplace violence	1	2	3	4	5
219. wound care	1	2	3	4	5

KNOWLEDGE OF:

- 178. signs and symptoms of chronic illness
- 179. signs and symptoms of hyperglycemia
- 180. signs and symptoms of hypoglycemia
- 181. signs and symptoms of impending complications
- 182. skills and capabilities of assistive personnel
- 183. skin care
- 184. skin integrity
- 185. specimen collection procedure
- 186. staff education
- 187. staff roles and responsibilities
- 188. staff safety
- 189. stages of grieving
- 190. stages of growth and development
- 191. stages of labor
- 192. stages of pregnancy
- 193. standard/universal precautions
- 194. standards of care
- 195. substance abuse
- 196. substance abuse withdrawal
- 197. supervisory skills
- 198. surgical procedure
- 199. suture or staple removal
- 200. techniques of client handling
- 201. temperature regulation interventions
- 202. therapeutic environment
- 203. time-out procedure
- 204. tracheostomy care
- 205. tracheostomy devices
- 206. transfer process
- 207. transfer techniques
- 208. types of incontinence
- 209. types of pain
- 210. urinary catheter insertion techniques
- 211. urinary catheter maintenance
- 212. urinary catheter removal techniques
- 213. urinary retention
- 214. validation therapy
- 215. venipuncture for blood draws
- 216. ventilators
- 217. vital signs
- 218. workplace violence
- 219. wound care

220. How well did the survey cover the important knowledge areas a newly licensed LPN/VN should possess, regardless of the practice setting?

- Very well
- Well
- Adequately
- Poorly

SECTION 1: KNOWLEDGE STATEMENTS *(continued)*

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

SECTION 2: WORK ENVIRONMENT

INSTRUCTIONS FOR NEWLY LICENSED LPN/VNs: Choose the following clinical setting or practice area that most accurately describes where you work.

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/DIRECTORS: Choose the following clinical setting that most accurately describes the general population you supervise and/or the unit on which 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 the 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/toddler (1 month-2 years)
- Preschool (ages 3-5)
- School Age (ages 6-12)
- Adolescent (ages 13-17)
- Adult (ages 18-64)
- Adult (ages 65-85)
- Adult (over age 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 the settings where you spend at least one-half of your time. *(Select NO MORE THAN TWO answers)*

- | | |
|--|---|
| <ul style="list-style-type: none"> <input type="radio"/> Critical care (e.g., ICU, CCU, step-down units, pediatric/neonatal intensive care, emergency department, post-anesthesia recovery unit) <input type="radio"/> Medical-surgical unit or any of its sub-specialties (e.g., oncology, orthopedics, neurology) <input type="radio"/> Pediatrics <input type="radio"/> Nursery <input type="radio"/> Labor and delivery <input type="radio"/> Postpartum unit <input type="radio"/> Psychiatric or any of its sub-specialties (e.g., detox) <input type="radio"/> Operating room, including outpatient surgery and surgicenters <input type="radio"/> Assisted living <input type="radio"/> Nursing home, skilled or intermediate care | <ul style="list-style-type: none"> <input type="radio"/> Other long term care (e.g., residential care, developmental disability) <input type="radio"/> Rehabilitation <input type="radio"/> Subacute unit <input type="radio"/> Transitional care unit <input type="radio"/> Physician/dentist's office <input type="radio"/> Occupational health <input type="radio"/> Outpatient clinic <input type="radio"/> Home health, including visiting nurse associations <input type="radio"/> Public health <input type="radio"/> Student/school health <input type="radio"/> Hospice care <input type="radio"/> Prison/correctional facility/jail <input type="radio"/> 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/dentist's office, clinic, school, prison, etc.)
- Other, please specify: _____

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

- LPN/VN - Diploma/Certificate in U.S.
- LPN/VN- Associate Degree in U.S.
- 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 - Masters (Nurse Midwife)
- RN - Masters (CRNA)
- RN - Generic Doctorate in U.S. (e.g., ND or PhD)
- RN - Nursing Doctorate in U.S. (e.g., DNP)
- 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.

Name: _____

E-mail Address: _____

You may write any comments or suggestions that you have in the space below.

Daytime or Early Evening Phone Number with Area Code:

()	-			-				
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

After you complete this form, please return it in the enclosed postage-paid envelope.

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 LPN/VN for safe and effective professional practice, regardless of specific practice setting?

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
23	central venous catheter blood draw	8	3.13	0.52
73	electrocardiogram (EKG/ECG)	8	3.13	0.48
214	validation therapy	7	3.14	0.40
151	postmortem care	8	3.25	0.37
85	group session participation	8	3.38	0.26
165	reality orientation	8	3.38	0.32
191	stages of labor	8	3.38	0.32
216	ventilators	8	3.38	0.46
172	seclusion protocols	7	3.43	0.43
8	alternative/complementary therapies	8	3.50	0.38
12	availability of resources (e.g., community, referral, interdisciplinary team)	8	3.50	0.33
152	postpartum care	8	3.50	0.33
199	suture or staple removal	8	3.50	0.38
203	time-out procedure	8	3.50	0.42
164	range of motion	7	3.57	0.30
13	basic cardiac rhythms	8	3.63	0.46
62	cost effective care	8	3.63	0.32
76	endotracheal devices	8	3.63	0.42
137	nutritional formulas	8	3.63	0.38
141	orthosis (e.g., traction, splint, brace)	8	3.63	0.38
166	recommended health screening	8	3.63	0.32
167	referral process	8	3.63	0.38
192	stages of pregnancy	8	3.63	0.38
195	substance abuse	8	3.63	0.38
197	supervisory skills	8	3.63	0.38
198	surgical procedure	8	3.63	0.42
205	tracheostomy devices	8	3.63	0.38
215	venipuncture for blood draws	8	3.63	0.32
104	least restrictive environment	7	3.71	0.29
183	skin care	7	3.71	0.29
190	stages of growth and development	7	3.71	0.29
207	transfer techniques	7	3.71	0.29
3	activities of daily living (ADLs)	8	3.75	0.25
11	assignment/delegation	8	3.75	0.16
16	behavioral disorders	8	3.75	0.25
24	central venous catheter maintenance	8	3.75	0.49

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
57	conflict resolution	8	3.75	0.37
82	fetal heart monitoring	8	3.75	0.37
98	interdisciplinary providers	8	3.75	0.37
134	non-pharmacological sleep interventions	8	3.75	0.31
138	nutritional needs	8	3.75	0.31
143	ostomy devices	8	3.75	0.31
160	psychological barriers	8	3.75	0.25
163	quality improvement (QI)	8	3.75	0.31
171	restraints	8	3.75	0.37
185	specimen collection procedure	8	3.75	0.37
201	temperature regulation interventions	8	3.75	0.31
206	transfer process	8	3.75	0.31
208	types of incontinence	8	3.75	0.31
213	urinary retention	6	3.83	0.40
4	adaptive equipment	7	3.86	0.26
126	mobility techniques	7	3.86	0.34
142	ostomy care	7	3.86	0.26
173	security alert	7	3.86	0.34
18	bladder and bowel training procedures	8	3.88	0.23
26	chemical toxicity	8	3.88	0.30
31	client data sources	8	3.88	0.35
53	communication barriers	8	3.88	0.30
54	communication techniques	8	3.88	0.30
67	discharge process	8	3.88	0.35
71	drainage devices	8	3.88	0.30
78	enteral tubes	8	3.88	0.30
79	equipment safety check	8	3.88	0.30
87	healthcare access	8	3.88	0.30
90	immobility related complications	8	3.88	0.30
91	immunizations	8	3.88	0.35
92	impairments (e.g., chemical, physical, emotional)	8	3.88	0.35
95	information technology	8	3.88	0.30
99	intravenous equipment	8	3.88	0.40
100	intravenous piggyback (secondary) medications	8	3.88	0.40
101	irrigation procedures	8	3.88	0.35
108	material safety data sheets (MSDS)	8	3.88	0.30
123	medication storage practice	8	3.88	0.30
127	nasogastric (NG) tube insertion	8	3.88	0.40
132	newborn care	8	3.88	0.40
133	non-pharmacological interventions for pain relief	8	3.88	0.30
147	peripheral intravenous (IV) catheter insertion	8	3.88	0.40

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
149	peripheral intravenous (IV) catheter removal	8	3.88	0.35
161	psychosocial implications of isolation	8	3.88	0.23
182	skills and capabilities of assistive personnel	8	3.88	0.30
186	staff education	8	3.88	0.35
189	stages of grieving	8	3.88	0.30
196	substance abuse withdrawal	8	3.88	0.35
204	tracheostomy care	8	3.88	0.35
6	age specific requirements for care	8	4.00	0.38
17	behavioral management	8	4.00	0.19
20	blood product administration	8	4.00	0.38
22	cardiac monitoring	8	4.00	0.42
48	client stressors (e.g., lifestyle, body changes, environmental)	8	4.00	0.27
52	collaboration	8	4.00	0.19
56	compression stockings/sequential compression devices (SCD)	8	4.00	0.27
58	continuing education	8	4.00	0.19
61	coping mechanisms	8	4.00	0.27
77	enteral tube feeding procedures	8	4.00	0.27
80	equipment usage	8	4.00	0.27
81	evidence-based practice	8	4.00	0.33
96	informed consent	8	4.00	0.27
97	intake/output procedures	8	4.00	0.27
102	isolation protocols	8	4.00	0.27
148	peripheral intravenous (IV) catheter maintenance	8	4.00	0.38
154	prenatal complication	8	4.00	0.42
156	prior level of ADL functioning	8	4.00	0.27
175	sensory/perceptual alterations	8	4.00	0.27
187	staff roles and responsibilities	7	4.00	0.31
200	techniques of client handling	8	4.00	0.27
210	urinary catheter insertion techniques	8	4.00	0.33
212	urinary catheter removal techniques	8	4.00	0.33
15	basic mathematics	8	4.13	0.13
21	body mechanics	8	4.13	0.30
36	client medical records	8	4.13	0.30
43	client preferences (e.g., religious, spiritual, cultural, health choices)	8	4.13	0.13
55	complications of labor	8	4.13	0.40
59	continuity of care	8	4.13	0.23
64	de-escalation techniques	8	4.13	0.30
65	diagnostic testing	8	4.13	0.23
66	dietary restrictions	8	4.13	0.23
75	emotional support to client	8	4.13	0.23
83	gastrointestinal tube feeding administration procedure	8	4.13	0.30

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
84	goal-driven interventions for plan of care	8	4.13	0.23
88	high risk behaviors	8	4.13	0.30
93	incident reporting	8	4.13	0.30
122	medication side effects	8	4.13	0.30
125	medication/dietary interaction	8	4.13	0.30
128	nasogastric (NG) tube maintenance	8	4.13	0.30
129	nasogastric (NG) tube removal	8	4.13	0.30
130	nasogastric (NG) tube suctioning	8	4.13	0.30
131	neurological status data collection	8	4.13	0.30
135	nonverbal indicators of pain	8	4.13	0.23
153	potential client risks	8	4.13	0.30
155	preventative health care	8	4.13	0.23
162	psychosocial needs	8	4.13	0.13
174	self-advocacy	8	4.13	0.23
202	therapeutic environment	8	4.13	0.23
211	urinary catheter maintenance	8	4.13	0.30
117	medication names (e.g., generic versus trade names)	7	4.14	0.34
169	reporting process	7	4.14	0.34
2	acceptable abbreviations	8	4.25	0.25
25	chain of command	8	4.25	0.16
27	circulatory status data collection	8	4.25	0.25
28	client abilities and limitations	8	4.25	0.25
41	client plan of care	8	4.25	0.25
42	client positioning	8	4.25	0.25
50	clients with special needs (e.g., newborn complications, developmental delays, Down syndrome)	8	4.25	0.31
60	coordination of care	8	4.25	0.16
72	education techniques (e.g., return demonstrations, pamphlet, instruction)	8	4.25	0.16
103	laboratory values	8	4.25	0.31
114	medication classifications	8	4.25	0.25
115	medication compatibilities (e.g., prescription, non-prescription)	8	4.25	0.37
118	medication preparation	8	4.25	0.25
119	medication reconciliation	8	4.25	0.25
159	professional development	8	4.25	0.25
178	signs and symptoms of chronic illness	8	4.25	0.25
184	skin integrity	8	4.25	0.25
209	types of pain	8	4.25	0.16
218	workplace violence	8	4.25	0.31
109	measurement conversions	7	4.29	0.29
188	staff safety	7	4.29	0.18
5	advance directives	8	4.38	0.26
29	client advocacy	8	4.38	0.18

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
30	client circulatory status	8	4.38	0.32
33	client education	8	4.38	0.26
34	client history	8	4.38	0.26
45	client rights and responsibilities	8	4.38	0.26
49	client-centered care	8	4.38	0.18
68	disease processes	8	4.38	0.18
86	hazardous conditions	8	4.38	0.26
89	HIPAA	8	4.38	0.18
113	medication adverse reactions	8	4.38	0.26
124	medication therapeutic effects	8	4.38	0.26
139	objective data collection	8	4.38	0.26
146	pain rating scales	8	4.38	0.18
150	personal/professional limitations	8	4.38	0.18
157	prioritization of client care based on their conditions	8	4.38	0.18
63	data collection	7	4.43	0.20
19	blood glucose monitoring	8	4.50	0.27
32	client dignity	8	4.50	0.27
38	client needs	8	4.50	0.19
44	client privacy	8	4.50	0.19
74	emergency procedures	8	4.50	0.19
106	licensure requirements	8	4.50	0.19
107	mandatory reporting guidelines	8	4.50	0.19
116	medication indications	8	4.50	0.19
136	nursing interventions	8	4.50	0.19
144	oxygen saturation	8	4.50	0.19
158	professional code of conduct	8	4.50	0.19
176	signs and symptoms of acute illness	8	4.50	0.19
181	signs and symptoms of impending complications	8	4.50	0.19
194	standards of care	8	4.50	0.19
140	order from the health care provider	7	4.57	0.20
1	abnormal findings	8	4.63	0.18
7	allergies	8	4.63	0.18
9	anatomy and physiology principles	8	4.63	0.18
10	aseptic and sterile techniques	8	4.63	0.18
14	basic life support (BLS)	8	4.63	0.26
37	client monitoring	8	4.63	0.18
39	client neurological status	8	4.63	0.26
40	client physical observations	8	4.63	0.18
69	documentation	8	4.63	0.18
105	legal scope of practice	8	4.63	0.18
112	medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	8	4.63	0.18

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
121	medication safety	8	4.63	0.18
177	signs and symptoms of allergic reaction	8	4.63	0.18
179	signs and symptoms of hyperglycemia	8	4.63	0.18
180	signs and symptoms of hypoglycemia	8	4.63	0.18
193	standard/universal precautions	8	4.63	0.18
219	wound care	8	4.63	0.18
35	client identification process	8	4.75	0.16
51	code of ethics	8	4.75	0.16
70	dosage calculation	8	4.75	0.16
170	respiratory status	8	4.75	0.16
217	vital signs	8	4.75	0.16
110	medication administration	7	4.86	0.14
46	client safety	8	4.88	0.13
47	client status and condition	8	4.88	0.13
94	infection control	8	4.88	0.13
111	medication administration devices (e.g., syringes, needles)	8	4.88	0.13
120	medication rights	8	4.88	0.13

APPENDIX E: NEWLY LICENSED LPN/VN AND SME KNOWLEDGE STATEMENT RATINGS RANK ORDERED BY NEWLY LICENSED LPN/VN AVERAGE IMPORTANCE

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

Newly Licensed LPN/VN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed LPN/VN Average Importance								
Survey Position #	Knowledge Statement	Newly Licensed LPN/VNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
85	group session participation	451	3.52	0.05	8	3.38	0.26	0.15
8	alternative/complementary therapies	448	3.57	0.04	8	3.50	0.38	0.07
168	remembrance therapy	451	3.57	0.05	8	2.50	0.33	1.07
167	referral process	455	3.72	0.05	8	3.63	0.38	0.10
203	time-out procedure	453	3.75	0.05	8	3.50	0.33	0.25
12	availability of resources (e.g., community, referral, interdisciplinary team)	453	3.75	0.04	8	3.50	0.42	0.25
98	interdisciplinary providers	453	3.80	0.04	8	3.75	0.37	0.05
16	behavioral disorders	452	3.81	0.04	8	3.75	0.25	0.06
62	cost effective care	454	3.82	0.04	8	3.13	0.52	0.70
23	central venous catheter blood draw	452	3.82	0.06	8	3.63	0.32	0.20
192	stages of pregnancy	453	3.82	0.05	8	3.63	0.38	0.20
214	validation therapy	451	3.83	0.05	7	3.14	0.40	0.69
17	behavioral management	452	3.84	0.04	8	4.00	0.19	-0.16
104	least restrictive environment	446	3.85	0.04	8	3.88	0.30	-0.02
95	information technology	454	3.85	0.04	7	3.71	0.29	0.14
134	non-pharmacological sleep interventions	456	3.86	0.04	8	3.75	0.31	0.11
191	stages of labor	455	3.87	0.06	8	3.88	0.23	0.00
172	seclusion protocols	452	3.87	0.05	8	3.25	0.37	0.62
18	bladder and bowel training procedures	454	3.87	0.04	7	3.43	0.43	0.44
151	postmortem care	453	3.87	0.05	8	3.38	0.32	0.50
137	nutritional formulas	452	3.88	0.04	8	3.88	0.35	0.00
67	discharge process	453	3.88	0.04	8	3.63	0.38	0.26
4	adaptive equipment	452	3.90	0.04	7	3.86	0.26	0.04
64	de-escalation techniques	447	3.90	0.04	8	3.88	0.35	0.02
31	client data sources	453	3.90	0.04	8	4.13	0.30	-0.23
152	postpartum care	452	3.91	0.05	8	3.50	0.33	0.41
190	stages of growth and development	454	3.91	0.05	8	3.63	0.32	0.29
166	recommended health screening	453	3.91	0.04	7	3.71	0.29	0.20
199	suture or staple removal	454	3.93	0.05	8	3.50	0.38	0.43
141	orthosis (e.g., traction, splint, brace)	451	3.94	0.04	8	3.63	0.38	0.32
3	activities of daily living (ADLs)	452	3.95	0.04	8	3.75	0.25	0.20
57	conflict resolution	454	3.96	0.04	8	3.75	0.16	0.21
11	assignment/delegation	453	3.96	0.04	8	3.75	0.37	0.21

Newly Licensed LPN/VN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed LPN/VN Average Importance								
Survey Position #	Knowledge Statement	Newly Licensed LPN/VNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
165	reality orientation	454	3.97	0.04	8	4.25	0.16	-0.28
25	chain of command	455	3.97	0.04	8	3.38	0.32	0.60
208	types of incontinence	454	3.98	0.04	8	3.75	0.37	0.23
171	restraints	451	3.98	0.05	8	3.75	0.31	0.23
163	quality improvement (QI)	453	3.99	0.04	8	4.00	0.27	-0.01
61	coping mechanisms	448	3.99	0.04	8	3.75	0.31	0.24
198	surgical procedure	454	4.00	0.05	8	4.00	0.38	0.00
87	healthcare access	453	4.00	0.04	8	3.88	0.30	0.13
189	stages of grieving	453	4.00	0.04	8	3.88	0.30	0.13
197	supervisory skills	454	4.00	0.04	8	3.88	0.30	0.13
6	age specific requirements for care	451	4.00	0.04	8	3.63	0.38	0.38
108	material safety data sheets (MSDS)	451	4.00	0.04	8	3.63	0.42	0.38
24	central venous catheter maintenance	451	4.01	0.06	8	3.75	0.49	0.26
84	goal-driven interventions for plan of care	448	4.01	0.04	8	4.13	0.23	-0.12
160	psychological barriers	450	4.01	0.04	8	3.75	0.25	0.26
133	non-pharmacological interventions for pain relief	455	4.02	0.04	8	4.25	0.16	-0.23
72	education techniques (e.g., return demonstrations, pamphlet, instruction)	453	4.02	0.04	8	3.13	0.48	0.90
126	mobility techniques	449	4.02	0.04	7	3.86	0.34	0.16
202	therapeutic environment	453	4.02	0.04	8	3.88	0.30	0.15
73	electrocardiogram (EKG/ECG)	456	4.02	0.05	8	4.13	0.23	-0.11
132	newborn care	454	4.03	0.06	8	4.25	0.25	-0.22
2	acceptable abbreviations	453	4.03	0.04	8	3.88	0.40	0.16
43	client preferences (e.g., religious, spiritual, cultural, health choices)	457	4.04	0.04	8	4.13	0.13	-0.09
71	drainage devices	451	4.04	0.04	8	3.88	0.30	0.17
161	psychosocial implications of isolation	450	4.04	0.04	8	3.88	0.23	0.17
81	evidence-based practice	453	4.05	0.04	8	4.00	0.33	0.05
174	self-advocacy	453	4.05	0.04	8	4.13	0.23	-0.08
195	substance abuse	456	4.05	0.04	8	3.63	0.38	0.43
218	workplace violence	453	4.07	0.04	8	3.88	0.35	0.20
164	range of motion	454	4.07	0.04	7	3.57	0.30	0.50
91	immunizations	451	4.07	0.04	8	4.25	0.31	-0.18
82	fetal heart monitoring	455	4.08	0.06	8	3.75	0.37	0.33
156	prior level of ADL functioning	451	4.08	0.04	8	4.00	0.27	0.08
154	prenatal complication	454	4.09	0.05	8	4.00	0.42	0.09
162	psychosocial needs	453	4.10	0.04	8	4.00	0.38	0.10
20	blood product administration	452	4.10	0.06	8	4.13	0.13	-0.03
56	compression stockings/sequential compression devices (SCD)	453	4.11	0.04	8	4.13	0.13	-0.01

Newly Licensed LPN/VN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed LPN/VN Average Importance								
Survey Position #	Knowledge Statement	Newly Licensed LPN/VNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
196	substance abuse withdrawl	455	4.11	0.04	8	4.13	0.40	-0.01
15	basic mathematics	450	4.11	0.04	8	4.00	0.27	0.11
55	complications of labor	453	4.11	0.06	8	3.75	0.31	0.36
138	nutritional needs	453	4.11	0.04	8	3.88	0.35	0.24
159	professional development	454	4.12	0.04	8	3.88	0.35	0.25
175	sensory/perceptual alterations	454	4.12	0.04	8	4.13	0.30	0.00
92	impairments (e.g., chemical, physical, emotional)	452	4.12	0.04	8	4.25	0.25	-0.13
129	nasogastric (NG) tube removal	453	4.12	0.05	8	4.00	0.27	0.12
65	diagnostic testing	454	4.13	0.04	8	4.25	0.25	-0.12
143	ostomy devices	451	4.13	0.04	8	4.13	0.23	0.00
28	client abilities and limitations	454	4.13	0.04	8	3.88	0.35	0.26
101	irrigation procedures	453	4.13	0.04	8	3.75	0.31	0.38
186	staff education	450	4.13	0.04	8	3.88	0.35	0.26
21	body mechanics	451	4.14	0.04	8	4.13	0.30	0.01
60	coordination of care	452	4.14	0.03	8	4.25	0.16	-0.11
88	high risk behaviors	453	4.15	0.04	8	4.00	0.27	0.15
48	client stressors (e.g., lifestyle, body changes, environmental)	452	4.15	0.03	8	4.00	0.19	0.15
52	collaboration	451	4.15	0.03	8	4.00	0.19	0.15
206	transfer process	451	4.15	0.04	8	4.13	0.30	0.03
215	venipuncture for blood draws	454	4.15	0.05	8	3.88	0.40	0.28
58	continuing education	452	4.15	0.04	8	3.88	0.40	0.28
200	techniques of client handling	451	4.15	0.04	8	4.13	0.23	0.03
147	peripheral intravenous (IV) catheter insertion	452	4.15	0.05	8	4.00	0.27	0.15
99	intravenous equipment	451	4.15	0.05	8	3.75	0.31	0.40
155	preventative health care	452	4.15	0.04	8	3.63	0.32	0.53
100	intravenous piggyback (secondary) medications	452	4.16	0.05	8	3.88	0.40	0.29
173	security alert	451	4.16	0.04	8	3.88	0.35	0.29
149	peripheral intravenous (IV) catheter removal	454	4.16	0.05	7	3.86	0.34	0.30
75	emotional support to client	451	4.17	0.04	8	4.13	0.23	0.04
201	temperature regulation interventions	447	4.17	0.04	8	3.88	0.40	0.30
127	nasogastric (NG) tube insertion	451	4.17	0.05	8	3.88	0.30	0.30
182	skills and capabilities of assistive personnel	447	4.17	0.04	8	3.75	0.31	0.42
207	transfer techniques	452	4.18	0.04	8	4.38	0.26	-0.20
97	intake/output procedures	451	4.18	0.04	8	4.00	0.27	0.18
5	advance directives	454	4.18	0.04	7	4.00	0.31	0.18
187	staff roles and responsibilities	456	4.18	0.04	7	3.71	0.29	0.47
142	ostomy care	454	4.19	0.04	8	3.63	0.46	0.57
27	circulatory status data collection	452	4.19	0.04	8	4.25	0.25	-0.06

Newly Licensed LPN/VN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed LPN/VN Average Importance								
Survey Position #	Knowledge Statement	Newly Licensed LPN/VNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
169	reporting process	451	4.19	0.04	8	3.88	0.30	0.32
53	communication barriers	455	4.19	0.04	7	3.86	0.26	0.33
13	basic cardiac rhythms	453	4.19	0.04	7	4.14	0.34	0.05
216	ventilators	454	4.20	0.05	8	3.38	0.46	0.83
54	communication techniques	454	4.21	0.03	8	3.88	0.30	0.34
59	continuity of care	453	4.21	0.03	8	4.13	0.23	0.09
86	hazardous conditions	454	4.21	0.05	8	4.38	0.26	-0.17
128	nasogastric (NG) tube maintenance	453	4.22	0.05	8	4.13	0.30	0.09
66	dietary restrictions	454	4.23	0.04	8	4.63	0.18	-0.40
76	endotracheal devices	453	4.23	0.05	8	4.38	0.18	-0.15
9	anatomy and physiology principles	448	4.23	0.04	8	4.13	0.23	0.11
29	client advocacy	451	4.23	0.04	8	3.63	0.42	0.61
130	nasogastric (NG) tube suctioning	452	4.23	0.05	8	4.13	0.30	0.11
22	cardiac monitoring	453	4.24	0.05	8	4.00	0.42	0.24
148	peripheral intravenous (IV) catheter maintenance	456	4.25	0.05	8	3.88	0.30	0.38
153	potential client risks	452	4.25	0.04	8	4.00	0.38	0.25
78	enteral tubes	448	4.25	0.04	8	4.13	0.30	0.13
50	clients with special needs (e.g., newborn complications, developmental delays, Down syndrome)	451	4.26	0.04	8	4.25	0.31	0.01
150	personal/professional limitations	454	4.26	0.04	8	4.38	0.18	-0.12
33	client education	454	4.27	0.04	8	3.88	0.30	0.40
26	chemical toxicity	450	4.27	0.04	8	4.38	0.26	-0.11
109	measurement conversions	453	4.27	0.04	8	4.38	0.18	-0.11
49	client-centered care	453	4.27	0.03	7	4.29	0.29	-0.02
205	tracheostomy devices	452	4.28	0.04	8	4.00	0.27	0.28
83	gastrointestinal tube feeding administration procedure	450	4.28	0.04	8	4.13	0.30	0.16
80	equipment usage	453	4.28	0.04	8	3.63	0.38	0.66
213	urinary retention	455	4.29	0.04	8	4.00	0.27	0.29
77	enteral tube feeding procedures	452	4.29	0.04	8	3.75	0.37	0.54
185	specimen collection procedure	453	4.29	0.03	6	3.83	0.40	0.46
41	client plan of care	450	4.30	0.03	8	4.25	0.25	0.05
107	mandatory reporting guidelines	450	4.30	0.04	8	4.50	0.19	-0.20
212	urinary catheter removal techniques	455	4.31	0.04	8	3.88	0.30	0.44
90	immobility related complications	451	4.31	0.03	8	4.00	0.33	0.31
145	pacemaker devices	453	4.32	0.04	8	2.75	0.45	1.57
63	data collection	450	4.33	0.03	8	4.13	0.30	0.21
204	tracheostomy care	453	4.33	0.04	7	4.43	0.20	-0.10
158	professional code of conduct	454	4.33	0.03	8	4.50	0.19	-0.17
36	client medical records	452	4.33	0.03	8	3.88	0.35	0.46

Newly Licensed LPN/VN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed LPN/VN Average Importance								
Survey Position #	Knowledge Statement	Newly Licensed LPN/VNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
183	skin care	452	4.34	0.03	8	4.38	0.26	-0.04
139	objective data collection	454	4.34	0.03	7	3.71	0.29	0.63
42	client positioning	455	4.35	0.04	8	4.25	0.25	0.10
209	types of pain	453	4.35	0.03	8	4.25	0.16	0.10
93	incident reporting	454	4.36	0.03	8	4.75	0.16	-0.39
188	staff safety	453	4.36	0.03	8	4.13	0.30	0.24
51	code of ethics	455	4.36	0.03	7	4.29	0.18	0.07
68	disease processes	449	4.37	0.04	8	4.38	0.26	0.00
146	pain rating scales	456	4.37	0.03	8	4.38	0.18	0.00
34	client history	453	4.37	0.03	8	4.38	0.18	0.00
40	client physical observations	453	4.38	0.03	8	4.63	0.18	-0.25
45	client rights and responsibilities	454	4.38	0.03	8	4.38	0.26	0.00
117	medication names (e.g., generic versus trade names)	453	4.38	0.04	7	4.14	0.34	0.24
135	nonverbal indicators of pain	453	4.38	0.03	8	4.13	0.23	0.26
79	equipment safety check	455	4.39	0.04	8	3.88	0.30	0.52
44	client privacy	453	4.40	0.03	8	4.50	0.27	-0.10
32	client dignity	453	4.40	0.03	8	4.50	0.19	-0.10
38	client needs	455	4.41	0.03	8	4.50	0.19	-0.09
157	prioritization of client care based on their conditions	451	4.41	0.04	8	4.38	0.18	0.04
194	standards of care	454	4.41	0.03	8	4.50	0.19	-0.09
211	urinary catheter maintenance	453	4.42	0.04	8	4.13	0.30	0.30
131	neurological status data collection	454	4.42	0.04	8	4.13	0.30	0.30
114	medication classifications	453	4.43	0.04	8	4.25	0.25	0.18
30	client circulatory status	453	4.44	0.03	8	4.38	0.32	0.07
96	informed consent	454	4.44	0.04	8	4.00	0.27	0.44
106	licensure requirements	453	4.45	0.03	8	4.50	0.19	-0.05
184	skin integrity	454	4.46	0.03	8	4.25	0.25	0.21
136	nursing interventions	454	4.47	0.03	8	4.50	0.19	-0.03
102	isolation protocols	450	4.48	0.04	8	4.00	0.27	0.48
119	medication reconciliation	450	4.48	0.03	8	4.25	0.25	0.23
178	signs and symptoms of chronic illness	454	4.48	0.03	8	4.25	0.25	0.23
210	urinary catheter insertion techniques	452	4.49	0.04	8	4.63	0.18	-0.14
125	medication/dietary interaction	452	4.49	0.03	8	3.88	0.30	0.62
123	medication storage practice	450	4.49	0.03	8	4.13	0.30	0.37
37	client monitoring	455	4.49	0.03	8	4.00	0.33	0.49
116	medication indications	452	4.50	0.03	8	4.50	0.19	0.00
124	medication therapeutic effects	453	4.50	0.03	8	4.38	0.26	0.13
140	order from the health care provider	454	4.52	0.03	7	4.57	0.20	-0.05
14	basic life support (BLS)	452	4.54	0.04	8	4.63	0.26	-0.09
103	laboratory values	450	4.54	0.03	8	4.25	0.31	0.29

Newly Licensed LPN/VN and SME Knowledge Statement Ratings Rank Ordered by Newly Licensed LPN/VN Average Importance								
Survey Position #	Knowledge Statement	Newly Licensed LPN/VNs			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
115	medication compatibilities (e.g., prescription, non-prescription)	453	4.54	0.03	8	4.25	0.37	0.29
105	legal scope of practice	449	4.55	0.03	8	4.63	0.18	-0.08
35	client identification process	455	4.58	0.03	8	4.75	0.16	-0.17
219	wound care	456	4.58	0.03	8	4.63	0.18	-0.04
19	blood glucose monitoring	454	4.59	0.03	8	4.50	0.27	0.09
7	allergies	453	4.61	0.03	8	4.63	0.18	-0.01
176	signs and symptoms of acute illness	454	4.62	0.03	8	4.63	0.26	0.00
39	client neurological status	454	4.62	0.03	8	4.50	0.19	0.12
74	emergency procedures	449	4.63	0.03	8	4.50	0.19	0.13
118	medication preparation	452	4.63	0.03	8	4.25	0.25	0.38
47	client status and condition	454	4.64	0.03	8	4.88	0.13	-0.24
193	standard/universal precautions	455	4.64	0.03	8	4.63	0.18	0.01
120	medication rights	454	4.65	0.03	8	4.88	0.13	-0.23
89	HIPAA	453	4.66	0.03	8	4.38	0.18	0.29
144	oxygen saturation	453	4.67	0.03	8	4.50	0.19	0.17
70	dosage calculation	450	4.68	0.03	8	4.75	0.16	-0.07
181	signs and symptoms of impending complications	451	4.68	0.03	8	4.13	0.30	0.56
122	medication side effects	452	4.68	0.03	8	4.50	0.19	0.18
94	infection control	450	4.71	0.03	8	4.63	0.18	0.09
1	abnormal findings	454	4.71	0.03	8	4.63	0.18	0.09
10	aseptic and sterile techniques	454	4.71	0.03	8	4.88	0.13	-0.17
170	respiratory status	451	4.72	0.03	8	4.63	0.18	0.09
69	documentation	453	4.72	0.02	8	4.75	0.16	-0.03
113	medication adverse reactions	452	4.75	0.02	8	4.88	0.13	-0.13
111	medication administration devices (e.g., syringes, needles)	453	4.75	0.02	8	4.38	0.26	0.38
179	signs and symptoms of hyperglycemia	454	4.77	0.02	8	4.63	0.18	0.15
217	vital signs	456	4.78	0.02	8	4.63	0.18	0.16
121	medication safety	453	4.78	0.02	8	4.75	0.16	0.03
180	signs and symptoms of hypoglycemia	453	4.79	0.02	8	4.63	0.18	0.17
46	client safety	451	4.80	0.02	8	4.88	0.13	-0.08
110	medication administration	453	4.81	0.02	7	4.86	0.14	-0.05
112	medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	452	4.82	0.02	8	4.63	0.18	0.20
177	signs and symptoms of allergic reaction	454	4.84	0.02	8	4.63	0.18	0.22

APPENDIX F: LPN/VN EDUCATORS AND SME KNOWLEDGE STATEMENT RATINGS RANK ORDERED BY LPN/VN EDUCATOR AVERAGE IMPORTANCE

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

LPN/VN Educators and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Educator Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
23	central venous catheter blood draw	761	2.56	0.05	8	3.13	0.52	-0.57
216	ventilators	760	3.08	0.04	8	3.38	0.46	-0.30
82	fetal heart monitoring	757	3.15	0.04	8	3.75	0.37	-0.60
85	group session participation	762	3.15	0.04	8	3.38	0.26	-0.23
24	central venous catheter maintenance	757	3.17	0.05	8	3.75	0.49	-0.58
168	reminiscence therapy	758	3.22	0.04	8	2.50	0.33	0.72
22	cardiac monitoring	759	3.28	0.04	8	4.00	0.42	-0.72
214	validation therapy	756	3.29	0.04	7	3.14	0.40	0.15
8	alternative/complementary therapies	760	3.32	0.03	8	3.50	0.38	-0.18
191	stages of labor	767	3.33	0.04	8	3.38	0.32	-0.04
73	electrocardiogram (EKG/ECG)	765	3.34	0.04	8	3.13	0.48	0.22
192	stages of pregnancy	761	3.34	0.04	8	3.63	0.38	-0.29
167	referral process	759	3.42	0.03	8	3.63	0.38	-0.21
215	venipuncture for blood draws	766	3.42	0.04	8	3.63	0.32	-0.21
55	complications of labor	761	3.45	0.04	8	4.13	0.40	-0.68
137	nutritional formulas	759	3.45	0.03	8	3.63	0.38	-0.18
198	surgical procedure	766	3.46	0.04	8	3.63	0.42	-0.17
197	supervisory skills	768	3.47	0.03	8	3.63	0.38	-0.16
76	endotracheal devices	762	3.49	0.04	8	3.63	0.42	-0.14
132	newborn care	757	3.50	0.04	8	3.88	0.40	-0.38
154	prenatal complication	760	3.53	0.04	8	4.00	0.42	-0.47
152	postpartum care	759	3.55	0.04	8	3.50	0.33	0.05
98	interdisciplinary providers	756	3.56	0.03	8	3.75	0.37	-0.19
12	availability of resources (e.g., community, referral, interdisciplinary team)	761	3.58	0.03	8	3.50	0.33	0.08
145	pacemaker devices	757	3.59	0.03	8	2.75	0.45	0.84
20	blood product administration	762	3.60	0.04	8	4.00	0.38	-0.40
203	time-out procedure	762	3.61	0.04	8	3.50	0.42	0.11
186	staff education	768	3.62	0.03	8	3.88	0.35	-0.26
13	basic cardiac rhythms	765	3.63	0.04	8	3.63	0.46	0.00
172	seclusion protocols	758	3.63	0.04	7	3.43	0.43	0.20
141	orthosis (e.g., traction, splint, brace)	760	3.66	0.03	8	3.63	0.38	0.04
108	material safety data sheets (MSDS)	757	3.68	0.03	8	3.75	0.25	-0.07
163	quality improvement (QI)	761	3.68	0.03	8	3.88	0.30	-0.20
16	behavioral disorders	767	3.68	0.03	8	3.75	0.31	-0.07
87	healthcare access	765	3.69	0.03	8	3.88	0.30	-0.19

LPN/VN Educators and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Educator Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
151	postmortem care	755	3.69	0.03	8	3.25	0.37	0.44
17	behavioral management	762	3.71	0.03	8	4.00	0.19	-0.29
199	suture or staple removal	767	3.72	0.04	8	3.50	0.38	0.22
166	recommended health screening	757	3.73	0.03	8	3.63	0.32	0.11
62	cost effective care	766	3.74	0.03	8	3.63	0.32	0.12
147	peripheral intravenous (IV) catheter insertion	758	3.74	0.04	8	3.88	0.40	-0.14
4	adaptive equipment	755	3.75	0.03	7	3.86	0.26	-0.11
18	bladder and bowel training procedures	761	3.76	0.03	8	3.88	0.23	-0.12
104	least restrictive environment	752	3.79	0.03	7	3.71	0.29	0.08
95	information technology	761	3.82	0.03	8	4.13	0.30	-0.31
64	de-escalation techniques	763	3.82	0.03	8	3.88	0.30	-0.06
161	psychosocial implications of isolation	762	3.84	0.03	8	3.88	0.23	-0.04
208	types of incontinence	763	3.85	0.03	8	3.88	0.30	-0.02
67	discharge process	765	3.85	0.03	8	3.88	0.35	-0.02
26	chemical toxicity	761	3.85	0.03	8	3.75	0.31	0.10
127	nasogastric (NG) tube insertion	754	3.86	0.04	8	3.88	0.40	-0.02
189	stages of grieving	768	3.86	0.03	8	3.88	0.30	-0.02
160	psychological barriers	756	3.87	0.03	8	3.75	0.25	0.12
84	goal-driven interventions for plan of care	759	3.88	0.03	8	4.13	0.23	-0.25
143	ostomy devices	759	3.88	0.03	8	3.75	0.31	0.13
31	client data sources	766	3.90	0.03	8	3.88	0.35	0.02
195	substance abuse	769	3.90	0.03	7	3.71	0.29	0.19
190	stages of growth and development	766	3.90	0.03	8	3.63	0.38	0.28
92	impairments (e.g., chemical, physical, emotional)	759	3.91	0.03	8	3.75	0.16	0.16
99	intravenous equipment	757	3.91	0.03	8	3.88	0.35	0.04
165	reality orientation	755	3.91	0.03	8	3.88	0.40	0.04
11	assignment/delegation	766	3.91	0.03	8	3.88	0.40	0.04
100	intravenous piggyback (secondary) medications	758	3.91	0.04	8	3.38	0.32	0.54
187	staff roles and responsibilities	768	3.92	0.03	8	4.00	0.27	-0.08
91	immunizations	759	3.92	0.03	8	4.13	0.30	-0.21
61	coping mechanisms	764	3.92	0.03	8	3.88	0.35	0.04
88	high risk behaviors	761	3.92	0.03	7	4.00	0.31	-0.08
72	education techniques (e.g., return demonstrations, pamphlet, instruction)	765	3.93	0.03	8	4.25	0.16	-0.32
142	ostomy care	759	3.93	0.03	7	3.86	0.26	0.07
101	irrigation procedures	756	3.94	0.03	8	4.25	0.31	-0.31
205	tracheostomy devices	765	3.94	0.03	8	3.88	0.35	0.06

LPN/VN Educators and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Educator Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
50	clients with special needs (e.g., newborn complications, developmental delays, Down syndrome)	767	3.94	0.03	8	3.63	0.38	0.32
218	workplace violence	766	3.94	0.03	8	4.25	0.31	-0.31
196	substance abuse withdrawal	765	3.95	0.03	8	3.88	0.35	0.08
174	self-advocacy	759	3.96	0.03	8	4.13	0.23	-0.17
134	non-pharmacological sleep interventions	762	3.97	0.03	8	3.75	0.31	0.22
43	client preferences (e.g., religious, spiritual, cultural, health choices)	766	3.98	0.03	8	4.13	0.13	-0.15
202	therapeutic environment	765	3.98	0.03	8	4.13	0.23	-0.15
71	drainage devices	759	3.99	0.03	8	3.88	0.30	0.12
138	nutritional needs	757	3.99	0.03	8	3.75	0.31	0.24
65	diagnostic testing	763	4.00	0.03	8	4.00	0.27	0.00
48	client stressors (e.g., lifestyle, body changes, environmental)	766	4.00	0.03	8	4.13	0.23	-0.13
129	nasogastric (NG) tube removal	755	4.01	0.03	8	4.13	0.30	-0.12
156	prior level of ADL functioning	755	4.01	0.03	8	4.00	0.27	0.01
162	psychosocial needs	762	4.03	0.03	8	3.75	0.37	0.28
57	conflict resolution	766	4.03	0.03	8	4.13	0.13	-0.09
60	coordination of care	765	4.04	0.03	8	4.25	0.16	-0.21
204	tracheostomy care	767	4.04	0.03	8	3.88	0.35	0.17
206	transfer process	765	4.04	0.03	8	3.75	0.31	0.29
200	techniques of client handling	765	4.05	0.03	7	3.86	0.34	0.19
126	mobility techniques	754	4.05	0.03	8	4.00	0.27	0.05
5	advance directives	761	4.06	0.03	8	4.38	0.26	-0.32
182	skills and capabilities of assistive personnel	767	4.07	0.03	8	4.00	0.33	0.07
130	nasogastric (NG) tube suctioning	753	4.07	0.03	8	4.13	0.30	-0.05
173	security alert	752	4.07	0.03	7	3.86	0.34	0.21
81	evidence-based practice	759	4.07	0.03	8	3.88	0.30	0.20
56	compression stockings/sequential compression devices (SCD)	762	4.10	0.03	8	4.00	0.27	0.10
155	preventative health care	756	4.11	0.03	8	3.75	0.25	0.36
3	activities of daily living (ADLs)	762	4.11	0.03	8	4.38	0.26	-0.27
164	range of motion	758	4.11	0.03	8	4.13	0.23	-0.01
175	sensory/perceptual alterations	756	4.11	0.03	7	3.57	0.30	0.54
86	hazardous conditions	764	4.11	0.03	8	4.00	0.27	0.11
201	temperature regulation interventions	767	4.11	0.03	8	3.75	0.31	0.36
149	peripheral intravenous (IV) catheter removal	759	4.12	0.03	8	3.88	0.35	0.25
128	nasogastric (NG) tube maintenance	756	4.13	0.03	8	4.25	0.16	-0.12
80	equipment usage	758	4.13	0.03	8	4.00	0.27	0.13

LPN/VN Educators and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Educator Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
25	chain of command	766	4.13	0.03	8	4.13	0.30	0.00
159	professional development	759	4.13	0.03	8	4.25	0.25	-0.12
133	non-pharmacological interventions for pain relief	761	4.14	0.03	8	4.00	0.19	0.14
58	continuing education	762	4.14	0.03	8	3.88	0.30	0.27
185	specimen collection procedure	764	4.14	0.03	8	3.75	0.37	0.39
169	reporting process	754	4.15	0.03	8	4.13	0.23	0.03
66	dietary restrictions	763	4.15	0.03	7	4.14	0.34	0.01
36	client medical records	766	4.16	0.03	8	4.13	0.30	0.04
188	staff safety	766	4.16	0.03	8	4.13	0.23	0.04
59	continuity of care	763	4.16	0.03	8	3.88	0.30	0.29
78	enteral tubes	763	4.16	0.03	7	4.29	0.18	-0.13
93	incident reporting	759	4.17	0.03	8	4.13	0.30	0.04
52	collaboration	762	4.18	0.03	8	4.00	0.19	0.18
207	transfer techniques	760	4.18	0.03	7	3.71	0.29	0.47
53	communication barriers	763	4.19	0.02	8	3.88	0.30	0.32
148	peripheral intravenous (IV) catheter maintenance	760	4.19	0.03	8	4.00	0.38	0.19
171	restraints	757	4.20	0.03	8	4.00	0.38	0.20
6	age specific requirements for care	762	4.20	0.03	8	3.75	0.37	0.45
41	client plan of care	764	4.21	0.03	8	4.25	0.25	-0.04
77	enteral tube feeding procedures	764	4.21	0.03	8	4.25	0.25	-0.04
2	acceptable abbreviations	764	4.21	0.03	8	4.00	0.27	0.21
213	urinary retention	763	4.22	0.03	6	3.83	0.40	0.39
75	emotional support to client	762	4.23	0.02	8	4.25	0.25	-0.02
153	potential client risks	758	4.23	0.03	8	4.13	0.23	0.11
28	client abilities and limitations	761	4.23	0.02	8	3.88	0.30	0.36
79	equipment safety check	763	4.23	0.03	8	4.13	0.30	0.11
49	client-centered care	762	4.28	0.03	8	4.38	0.26	-0.09
33	client education	765	4.28	0.03	8	4.38	0.18	-0.09
83	gastrointestinal tube feeding administration procedure	764	4.28	0.03	8	4.13	0.30	0.16
34	client history	765	4.30	0.03	8	4.38	0.26	-0.08
209	types of pain	763	4.31	0.03	8	4.13	0.30	0.19
21	body mechanics	760	4.31	0.03	7	4.29	0.29	0.02
109	measurement conversions	756	4.31	0.03	8	4.25	0.16	0.06
29	client advocacy	766	4.33	0.02	8	4.38	0.18	-0.04
63	data collection	765	4.33	0.03	7	4.43	0.20	-0.10
97	intake/output procedures	760	4.34	0.03	8	4.00	0.27	0.34
54	communication techniques	762	4.35	0.02	8	3.88	0.30	0.48
135	nonverbal indicators of pain	760	4.35	0.02	8	4.13	0.23	0.23
212	urinary catheter removal techniques	766	4.36	0.03	8	4.50	0.19	-0.14

LPN/VN Educators and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Educator Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
74	emergency procedures	765	4.36	0.03	8	4.25	0.31	0.11
103	laboratory values	759	4.36	0.03	8	4.00	0.33	0.36
183	skin care	766	4.37	0.02	8	4.25	0.25	0.12
178	signs and symptoms of chronic illness	766	4.37	0.02	8	3.88	0.30	0.50
123	medication storage practice	760	4.37	0.03	8	4.25	0.25	0.12
42	client positioning	761	4.37	0.02	7	3.71	0.29	0.66
117	medication names (e.g., generic versus trade names)	759	4.38	0.03	7	4.14	0.34	0.24
96	informed consent	760	4.39	0.03	8	3.88	0.30	0.52
90	immobility related complications	762	4.39	0.03	8	4.00	0.27	0.39
27	circulatory status data collection	764	4.40	0.03	8	4.25	0.25	0.15
107	mandatory reporting guidelines	756	4.40	0.03	8	4.50	0.19	-0.10
125	medication/dietary interaction	756	4.42	0.03	8	4.13	0.30	0.30
9	anatomy and physiology principles	764	4.43	0.02	8	4.63	0.18	-0.20
140	order from the health care provider	757	4.43	0.03	7	4.57	0.20	-0.14
184	skin integrity	766	4.43	0.02	8	4.25	0.25	0.18
131	neurological status data collection	756	4.44	0.03	8	4.13	0.30	0.32
211	urinary catheter maintenance	769	4.44	0.02	8	4.13	0.30	0.32
119	medication reconciliation	754	4.45	0.03	8	4.25	0.25	0.20
68	disease processes	764	4.46	0.02	8	4.38	0.18	0.09
139	objective data collection	758	4.46	0.02	8	4.38	0.26	0.09
219	wound care	768	4.46	0.02	8	4.63	0.18	-0.17
15	basic mathematics	762	4.47	0.03	8	4.13	0.13	0.35
114	medication classifications	758	4.49	0.02	8	4.25	0.25	0.24
210	urinary catheter insertion techniques	767	4.50	0.02	8	4.38	0.26	0.13
45	client rights and responsibilities	766	4.50	0.02	8	4.38	0.18	0.13
157	prioritization of client care based on their conditions	759	4.50	0.02	8	4.00	0.33	0.50
102	isolation protocols	760	4.51	0.02	8	4.50	0.27	0.01
194	standards of care	766	4.51	0.02	8	4.00	0.27	0.51
32	client dignity	762	4.51	0.02	8	4.50	0.19	0.01
44	client privacy	765	4.52	0.02	8	4.50	0.19	0.02
150	personal/professional limitations	759	4.52	0.02	8	4.50	0.19	0.02
38	client needs	763	4.52	0.02	8	4.25	0.37	0.27
115	medication compatibilities (e.g., prescription, non-prescription)	761	4.52	0.03	8	4.38	0.18	0.15
19	blood glucose monitoring	765	4.53	0.02	8	4.50	0.27	0.03
146	pain rating scales	756	4.53	0.02	8	4.38	0.32	0.16
30	client circulatory status	764	4.53	0.02	8	4.38	0.18	0.16
116	medication indications	756	4.55	0.02	8	4.75	0.16	-0.20
144	oxygen saturation	756	4.55	0.02	8	4.50	0.19	0.05
136	nursing interventions	754	4.55	0.02	8	4.50	0.19	0.05

LPN/VN Educators and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Educator Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Educators			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
51	code of ethics	765	4.55	0.02	8	4.50	0.19	0.05
37	client monitoring	766	4.56	0.02	8	4.63	0.18	-0.07
106	licensure requirements	755	4.58	0.02	8	4.50	0.19	0.08
158	professional code of conduct	760	4.58	0.02	8	4.50	0.19	0.08
124	medication therapeutic effects	757	4.59	0.02	8	4.38	0.26	0.22
40	client physical observations	762	4.60	0.02	8	4.63	0.18	-0.03
39	client neurological status	765	4.61	0.02	8	4.63	0.26	-0.01
176	signs and symptoms of acute illness	757	4.65	0.02	8	4.50	0.19	0.15
47	client status and condition	759	4.66	0.02	8	4.88	0.13	-0.22
122	medication side effects	754	4.68	0.02	8	4.63	0.18	0.05
69	documentation	764	4.68	0.02	8	4.13	0.30	0.56
7	allergies	754	4.69	0.02	8	4.63	0.18	0.07
118	medication preparation	755	4.70	0.02	8	4.63	0.18	0.08
181	signs and symptoms of impending complications	765	4.70	0.02	8	4.25	0.25	0.45
105	legal scope of practice	758	4.70	0.02	8	4.50	0.19	0.20
94	infection control	760	4.74	0.02	8	4.63	0.26	0.12
14	basic life support (BLS)	761	4.74	0.02	8	4.38	0.18	0.37
89	HIPAA	762	4.74	0.02	8	4.88	0.13	-0.14
170	respiratory status	755	4.74	0.02	8	4.75	0.16	-0.01
35	client identification process	763	4.75	0.02	8	4.75	0.16	0.00
179	signs and symptoms of hyperglycemia	766	4.75	0.02	8	4.63	0.18	0.13
193	standard/universal precautions	766	4.76	0.02	8	4.63	0.18	0.14
70	dosage calculation	763	4.77	0.02	8	4.75	0.16	0.02
113	medication adverse reactions	756	4.78	0.02	8	4.38	0.26	0.41
10	aseptic and sterile techniques	763	4.79	0.02	8	4.63	0.18	0.17
120	medication rights	756	4.80	0.02	8	4.63	0.18	0.18
1	abnormal findings	768	4.80	0.02	8	4.88	0.13	-0.08
177	signs and symptoms of allergic reaction	758	4.81	0.02	8	4.63	0.18	0.19
217	vital signs	766	4.82	0.02	8	4.75	0.16	0.07
180	signs and symptoms of hypoglycemia	767	4.83	0.02	8	4.88	0.13	-0.04
111	medication administration devices (e.g., syringes, needles)	759	4.83	0.02	8	4.63	0.18	0.21
112	medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	752	4.86	0.01	8	4.63	0.18	0.24
46	client safety	764	4.87	0.01	8	4.88	0.13	0.00
121	medication safety	758	4.89	0.01	7	4.86	0.14	0.03
110	medication administration	757	4.89	0.01	8	4.63	0.18	0.27

APPENDIX G: LPN/VN SUPERVISORS AND SME KNOWLEDGE STATEMENT RATINGS RANK ORDERED BY LPN/VN SUPERVISOR AVERAGE IMPORTANCE

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

LPN/VN Supervisors and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
23	central venous catheter blood draw	250	2.72	0.09	8	3.13	0.52	-0.41
82	fetal heart monitoring	246	2.90	0.09	8	3.75	0.37	-0.85
85	group session participation	249	2.96	0.07	8	3.38	0.26	-0.42
191	stages of labor	248	2.97	0.08	8	3.38	0.32	-0.41
168	remembrance therapy	249	2.98	0.06	8	2.50	0.33	0.48
192	stages of pregnancy	247	2.99	0.08	8	3.63	0.38	-0.64
132	newborn care	249	3.08	0.08	8	3.88	0.40	-0.80
216	ventilators	247	3.10	0.09	8	3.38	0.46	-0.28
154	prenatal complication	249	3.16	0.08	8	3.50	0.33	-0.34
152	postpartum care	251	3.16	0.08	8	4.00	0.42	-0.84
214	validation therapy	246	3.18	0.07	7	3.14	0.40	0.04
55	complications of labor	247	3.21	0.08	8	4.13	0.40	-0.92
198	surgical procedure	248	3.22	0.07	8	3.63	0.42	-0.41
73	electrocardiogram (EKG/ECG)	250	3.23	0.07	8	3.13	0.48	0.11
8	alternative/complementary therapies	249	3.25	0.06	8	3.50	0.38	-0.25
167	referral process	248	3.25	0.06	8	3.63	0.38	-0.38
24	central venous catheter maintenance	252	3.28	0.08	8	3.75	0.49	-0.47
20	blood product administration	250	3.29	0.09	8	4.00	0.38	-0.71
22	cardiac monitoring	248	3.30	0.08	8	3.50	0.33	-0.20
12	availability of resources (e.g., community, referral, interdisciplinary team)	249	3.30	0.06	8	4.00	0.42	-0.70
203	time-out procedure	246	3.33	0.08	8	3.50	0.42	-0.17
166	recommended health screening	248	3.35	0.06	8	3.63	0.32	-0.28
215	venipuncture for blood draws	249	3.36	0.07	8	3.63	0.32	-0.27
137	nutritional formulas	248	3.38	0.06	8	3.63	0.38	-0.25
87	healthcare access	247	3.40	0.06	8	3.88	0.30	-0.48
190	stages of growth and development	249	3.41	0.06	7	3.71	0.29	-0.30
98	interdisciplinary providers	251	3.47	0.06	8	3.75	0.37	-0.28
197	supervisory skills	249	3.47	0.07	8	3.63	0.38	-0.16
127	nasogastric (NG) tube insertion	250	3.48	0.08	8	3.63	0.42	-0.15
76	endotracheal devices	250	3.48	0.07	8	3.88	0.40	-0.40
151	postmortem care	250	3.51	0.06	8	3.25	0.37	0.26
141	orthosis (e.g., traction, splint, brace)	248	3.53	0.06	8	3.63	0.38	-0.10
31	client data sources	251	3.54	0.06	8	3.88	0.35	-0.34
199	suture or staple removal	250	3.54	0.06	8	3.50	0.38	0.04
13	basic cardiac rhythms	249	3.58	0.07	8	3.63	0.46	-0.04

LPN/VN Supervisors and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
129	nasogastric (NG) tube removal	251	3.59	0.07	8	4.13	0.30	-0.54
172	seclusion protocols	250	3.61	0.08	7	3.43	0.43	0.18
62	cost effective care	250	3.62	0.06	8	3.63	0.32	0.00
4	adaptive equipment	250	3.63	0.05	7	3.86	0.26	-0.23
108	material safety data sheets (MSDS)	250	3.65	0.06	8	3.88	0.30	-0.23
18	bladder and bowel training procedures	251	3.66	0.05	8	3.88	0.23	-0.22
202	therapeutic environment	250	3.66	0.05	8	3.88	0.35	-0.22
196	substance abuse withdrawl	249	3.66	0.06	8	3.88	0.35	-0.22
186	staff education	250	3.66	0.06	8	4.13	0.23	-0.47
165	reality orientation	250	3.67	0.06	8	3.38	0.32	0.30
50	clients with special needs (e.g., newborn complications, developmental delays, Down syndrome)	249	3.68	0.06	8	3.75	0.25	-0.07
145	pacemaker devices	247	3.68	0.06	8	4.25	0.31	-0.57
16	behavioral disorders	251	3.68	0.05	8	2.75	0.45	0.93
195	substance abuse	249	3.68	0.06	8	3.63	0.38	0.06
174	self-advocacy	247	3.69	0.06	7	3.71	0.29	-0.02
130	nasogastric (NG) tube suctioning	249	3.69	0.07	8	4.13	0.30	-0.44
104	least restrictive environment	248	3.69	0.06	8	4.13	0.23	-0.44
189	stages of grieving	249	3.69	0.05	8	3.88	0.30	-0.19
11	assignment/delegation	251	3.70	0.06	8	3.75	0.16	-0.05
17	behavioral management	250	3.70	0.05	8	4.00	0.19	-0.30
95	information technology	252	3.72	0.06	8	3.88	0.30	-0.16
161	psychosocial implications of isolation	249	3.72	0.05	8	3.88	0.23	-0.16
128	nasogastric (NG) tube maintenance	249	3.73	0.07	8	4.13	0.30	-0.40
160	psychological barriers	250	3.74	0.05	8	3.75	0.25	-0.01
64	de-escalation techniques	249	3.75	0.06	8	4.13	0.30	-0.38
91	immunizations	251	3.75	0.06	8	3.88	0.35	-0.13
155	preventative health care	250	3.75	0.06	8	4.13	0.23	-0.38
201	temperature regulation interventions	250	3.76	0.06	8	3.75	0.31	0.01
26	chemical toxicity	250	3.78	0.06	8	3.88	0.30	-0.10
56	compression stockings/sequential compression devices (SCD)	249	3.78	0.06	8	4.00	0.27	-0.22
88	high risk behaviors	252	3.78	0.06	8	4.13	0.30	-0.35
84	goal-driven interventions for plan of care	248	3.79	0.05	8	4.13	0.13	-0.34
67	discharge process	249	3.79	0.05	8	3.88	0.35	-0.09
43	client preferences (e.g., religious, spiritual, cultural, health choices)	250	3.79	0.05	8	4.13	0.23	-0.34
175	sensory/perceptual alterations	246	3.79	0.06	8	3.75	0.31	0.04
138	nutritional needs	250	3.79	0.05	8	4.00	0.27	-0.21
182	skills and capabilities of assistive personnel	249	3.80	0.06	8	4.13	0.23	-0.33

LPN/VN Supervisors and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
72	education techniques (e.g., return demonstrations, pamphlet, instruction)	247	3.80	0.06	8	4.25	0.16	-0.45
65	diagnostic testing	249	3.80	0.05	8	3.88	0.30	-0.08
208	types of incontinence	249	3.80	0.05	8	3.75	0.31	0.05
200	techniques of client handling	248	3.81	0.05	8	4.00	0.27	-0.19
61	coping mechanisms	249	3.81	0.05	8	3.75	0.31	0.06
163	quality improvement (QI)	248	3.81	0.05	8	4.00	0.27	-0.19
126	mobility techniques	249	3.82	0.05	8	3.88	0.40	-0.06
99	intravenous equipment	250	3.82	0.06	7	3.86	0.34	-0.04
71	drainage devices	248	3.83	0.05	8	4.00	0.27	-0.17
218	workplace violence	248	3.83	0.06	7	4.43	0.20	-0.60
187	staff roles and responsibilities	251	3.83	0.05	8	3.88	0.30	-0.04
48	client stressors (e.g., lifestyle, body changes, environmental)	248	3.83	0.05	7	4.00	0.31	-0.17
63	data collection	248	3.83	0.06	8	4.25	0.31	-0.42
153	potential client risks	249	3.84	0.06	8	3.88	0.40	-0.04
100	intravenous piggyback (secondary) medications	250	3.84	0.07	8	3.88	0.40	-0.04
147	peripheral intravenous (IV) catheter insertion	250	3.84	0.08	8	4.13	0.30	-0.29
156	prior level of ADL functioning	249	3.86	0.05	8	3.88	0.35	-0.02
92	impairments (e.g., chemical, physical, emotional)	251	3.86	0.05	8	4.00	0.27	-0.14
134	non-pharmacological sleep interventions	251	3.87	0.05	8	3.75	0.31	0.12
205	tracheostomy devices	248	3.88	0.06	8	3.63	0.38	0.26
206	transfer process	248	3.88	0.05	8	3.75	0.31	0.13
101	irrigation procedures	250	3.90	0.05	8	3.88	0.35	0.02
162	psychosocial needs	247	3.90	0.05	8	3.75	0.31	0.15
143	ostomy devices	250	3.90	0.05	8	4.13	0.13	-0.23
164	range of motion	248	3.92	0.05	7	3.86	0.26	0.06
142	ostomy care	247	3.92	0.05	7	3.57	0.30	0.35
109	measurement conversions	249	3.94	0.06	8	4.00	0.38	-0.06
6	age specific requirements for care	250	3.94	0.05	8	4.25	0.25	-0.31
28	client abilities and limitations	251	3.94	0.05	7	4.29	0.29	-0.35
173	security alert	250	3.96	0.06	8	4.25	0.16	-0.29
204	tracheostomy care	247	3.96	0.06	8	4.13	0.23	-0.17
66	dietary restrictions	249	3.96	0.05	8	4.00	0.33	-0.04
81	evidence-based practice	248	3.96	0.06	8	4.38	0.26	-0.42
86	hazardous conditions	249	3.96	0.06	7	3.86	0.34	0.10
60	coordination of care	250	3.96	0.05	8	3.88	0.35	0.09
58	continuing education	250	3.97	0.05	8	4.00	0.19	-0.03
97	intake/output procedures	249	3.97	0.05	8	4.00	0.27	-0.03

LPN/VN Supervisors and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
29	client advocacy	250	3.98	0.05	8	4.25	0.25	-0.27
2	acceptable abbreviations	251	3.98	0.06	8	4.38	0.18	-0.40
53	communication barriers	249	3.99	0.05	8	3.88	0.30	0.12
25	chain of command	251	4.00	0.06	8	4.25	0.16	-0.25
57	conflict resolution	248	4.00	0.05	8	3.75	0.37	0.25
171	restraints	244	4.01	0.07	8	3.75	0.37	0.26
36	client medical records	248	4.02	0.06	8	3.75	0.25	0.27
27	circulatory status data collection	251	4.02	0.05	8	4.25	0.25	-0.23
3	activities of daily living (ADLs)	250	4.02	0.05	8	4.13	0.30	-0.11
149	peripheral intravenous (IV) catheter removal	250	4.02	0.06	8	4.13	0.23	-0.11
75	emotional support to client	246	4.02	0.05	8	3.88	0.35	0.15
185	specimen collection procedure	249	4.03	0.05	8	3.75	0.37	0.28
207	transfer techniques	248	4.03	0.05	7	3.71	0.29	0.32
79	equipment safety check	249	4.04	0.05	8	3.88	0.30	0.17
80	equipment usage	246	4.04	0.05	8	4.00	0.27	0.04
5	advance directives	249	4.05	0.05	8	4.38	0.26	-0.33
133	non-pharmacological interventions for pain relief	253	4.06	0.05	8	3.88	0.30	0.19
139	objective data collection	248	4.06	0.06	8	4.38	0.26	-0.32
188	staff safety	247	4.06	0.05	7	4.29	0.18	-0.23
78	enteral tubes	248	4.07	0.05	8	4.00	0.27	0.07
159	professional development	251	4.07	0.05	8	3.88	0.30	0.20
77	enteral tube feeding procedures	249	4.07	0.05	8	4.25	0.25	-0.18
59	continuity of care	250	4.08	0.05	8	4.00	0.19	0.08
52	collaboration	248	4.08	0.05	8	4.13	0.23	-0.04
169	reporting process	250	4.08	0.05	7	4.14	0.34	-0.06
131	neurological status data collection	248	4.09	0.06	8	4.13	0.30	-0.04
83	gastrointestinal tube feeding administration procedure	245	4.09	0.05	8	4.13	0.30	-0.04
33	client education	250	4.10	0.05	8	4.38	0.26	-0.28
148	peripheral intravenous (IV) catheter maintenance	248	4.10	0.06	8	4.00	0.38	0.10
54	communication techniques	249	4.12	0.05	8	4.13	0.13	0.00
21	body mechanics	248	4.12	0.05	8	4.13	0.30	0.00
15	basic mathematics	251	4.12	0.05	8	3.88	0.30	0.25
103	laboratory values	251	4.15	0.05	8	4.25	0.31	-0.10
49	client-centered care	245	4.16	0.05	8	4.38	0.26	-0.22
34	client history	249	4.16	0.05	8	4.38	0.18	-0.22
96	informed consent	252	4.17	0.05	8	4.00	0.27	0.17
90	immobility related complications	249	4.18	0.05	8	3.88	0.30	0.31
213	urinary retention	246	4.19	0.05	8	4.38	0.32	-0.19
30	client circulatory status	249	4.19	0.05	8	4.13	0.30	0.07

LPN/VN Supervisors and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
93	incident reporting	249	4.19	0.05	6	3.83	0.40	0.36
41	client plan of care	249	4.20	0.05	8	4.25	0.25	-0.05
125	medication/dietary interaction	249	4.21	0.05	8	4.13	0.30	0.09
42	client positioning	250	4.22	0.04	8	4.25	0.25	-0.03
117	medication names (e.g., generic versus trade names)	249	4.22	0.05	7	4.14	0.34	0.08
157	prioritization of client care based on their conditions	250	4.25	0.05	8	4.38	0.18	-0.13
68	disease processes	248	4.27	0.04	8	4.38	0.18	-0.11
123	medication storage practice	248	4.27	0.05	8	4.25	0.25	0.02
114	medication classifications	251	4.27	0.05	8	3.88	0.30	0.40
183	skin care	249	4.28	0.05	7	3.71	0.29	0.57
102	isolation protocols	252	4.29	0.05	8	4.00	0.27	0.29
212	urinary catheter removal techniques	248	4.29	0.05	7	4.57	0.20	-0.28
140	order from the health care provider	246	4.29	0.05	8	4.00	0.33	0.29
209	types of pain	246	4.31	0.05	8	4.25	0.16	0.06
74	emergency procedures	249	4.32	0.05	8	4.50	0.19	-0.18
211	urinary catheter maintenance	247	4.33	0.04	8	4.13	0.30	0.21
107	mandatory reporting guidelines	250	4.34	0.05	8	4.50	0.19	-0.16
9	anatomy and physiology principles	249	4.35	0.04	8	4.63	0.18	-0.28
210	urinary catheter insertion techniques	251	4.35	0.05	8	4.63	0.26	-0.28
39	client neurological status	249	4.35	0.04	8	4.38	0.26	-0.03
124	medication therapeutic effects	251	4.35	0.04	8	4.00	0.33	0.35
51	code of ethics	249	4.36	0.05	8	4.50	0.27	-0.14
32	client dignity	251	4.36	0.05	8	4.75	0.16	-0.39
184	skin integrity	245	4.36	0.04	8	4.25	0.25	0.11
178	signs and symptoms of chronic illness	251	4.36	0.04	8	4.25	0.25	0.11
135	nonverbal indicators of pain	250	4.38	0.04	8	4.50	0.19	-0.12
38	client needs	248	4.38	0.04	8	4.50	0.19	-0.12
44	client privacy	250	4.38	0.04	8	4.50	0.19	-0.12
116	medication indications	250	4.38	0.04	8	4.13	0.23	0.26
45	client rights and responsibilities	250	4.39	0.04	8	4.38	0.26	0.01
115	medication compatibilities (e.g., prescription, non-prescription)	251	4.39	0.05	8	4.25	0.37	0.14
119	medication reconciliation	250	4.42	0.05	8	4.63	0.18	-0.21
150	personal/professional limitations	250	4.42	0.05	8	4.25	0.25	0.17
37	client monitoring	249	4.42	0.04	8	4.50	0.19	-0.08
144	oxygen saturation	249	4.42	0.04	8	4.38	0.18	0.04
219	wound care	249	4.42	0.04	8	4.63	0.18	-0.21
136	nursing interventions	247	4.43	0.04	8	4.50	0.27	-0.07
19	blood glucose monitoring	249	4.43	0.04	8	4.50	0.19	-0.07
106	licensure requirements	251	4.45	0.05	8	4.50	0.19	-0.05
146	pain rating scales	244	4.45	0.04	8	4.38	0.18	0.08

LPN/VN Supervisors and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisors			SME Ratings			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
194	standards of care	247	4.46	0.04	8	4.75	0.16	-0.29
70	dosage calculation	248	4.46	0.05	8	4.50	0.19	-0.04
158	professional code of conduct	248	4.46	0.04	8	4.50	0.19	-0.04
40	client physical observations	247	4.49	0.04	8	4.63	0.18	-0.14
118	medication preparation	251	4.50	0.04	8	4.25	0.25	0.25
7	allergies	250	4.51	0.05	8	4.63	0.18	-0.12
14	basic life support (BLS)	249	4.51	0.05	8	4.63	0.26	-0.12
35	client identification process	251	4.53	0.04	8	4.75	0.16	-0.22
47	client status and condition	249	4.53	0.04	8	4.88	0.13	-0.35
105	legal scope of practice	250	4.53	0.04	8	4.63	0.18	-0.09
122	medication side effects	248	4.53	0.04	8	4.13	0.30	0.41
170	respiratory status	246	4.54	0.04	8	4.63	0.18	-0.09
10	aseptic and sterile techniques	249	4.54	0.04	8	4.75	0.16	-0.21
120	medication rights	251	4.58	0.04	8	4.88	0.13	-0.30
193	standard/universal precautions	248	4.60	0.04	8	4.38	0.18	0.23
89	HIPAA	252	4.60	0.04	8	4.63	0.18	-0.03
69	documentation	249	4.62	0.03	8	4.63	0.18	0.00
94	infection control	249	4.62	0.04	8	4.88	0.13	-0.26
181	signs and symptoms of impending complications	249	4.62	0.03	8	4.50	0.19	0.12
113	medication adverse reactions	251	4.66	0.03	8	4.38	0.26	0.29
217	vital signs	249	4.67	0.04	8	4.50	0.19	0.17
176	signs and symptoms of acute illness	247	4.67	0.03	8	4.75	0.16	-0.08
121	medication safety	251	4.70	0.03	8	4.63	0.18	0.08
111	medication administration devices (e.g., syringes, needles)	252	4.71	0.03	8	4.88	0.13	-0.17
179	signs and symptoms of hyperglycemia	249	4.72	0.03	8	4.63	0.18	0.09
46	client safety	248	4.75	0.03	8	4.88	0.13	-0.13
177	signs and symptoms of allergic reaction	245	4.75	0.03	8	4.63	0.18	0.13
180	signs and symptoms of hypoglycemia	248	4.75	0.03	8	4.63	0.18	0.13
112	medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	253	4.76	0.03	8	4.63	0.18	0.14
1	abnormal findings	250	4.76	0.03	8	4.63	0.18	0.14
110	medication administration	247	4.77	0.03	7	4.86	0.14	-0.09

APPENDIX H: KNOWLEDGE STATEMENTS SUBGROUP ANALYSIS: PRIMARY JOB TITLE

Knowledge Statements Subgroup Analysis: Primary Job Title																
Survey Position #	Knowledge Statement	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor			New vs. Educator		New vs. Supervisor		Educator vs. Supervisor	
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Std. Err.	Difference	Std. Err.	Difference	Std. Err.
1	abnormal findings	454	4.71	0.03	768	4.80	0.02	250	4.76	0.03	-0.09	0.03	-0.05	0.04	0.04	
2	acceptable abbreviations	453	4.03	0.04	764	4.21	0.03	251	3.98	0.06	-0.18	0.06	0.05	0.23	0.23	
3	activities of daily living (ADLs)	452	3.95	0.04	762	4.11	0.03	250	4.02	0.05	-0.16	0.05	-0.07	0.09	0.09	
4	adaptive equipment	452	3.90	0.04	755	3.75	0.03	250	3.63	0.05	0.15	0.05	0.27	0.12	0.12	
5	advance directives	454	4.18	0.04	761	4.06	0.03	249	4.05	0.05	0.12	0.05	0.13	0.01	0.01	
6	age specific requirements for care	451	4.00	0.04	762	4.20	0.03	250	3.94	0.05	-0.20	0.05	0.06	0.26	0.26	
7	allergies	453	4.61	0.03	754	4.69	0.02	250	4.51	0.05	-0.08	0.05	0.11	0.18	0.18	
8	alternative/complementary therapies	448	3.57	0.04	760	3.32	0.03	249	3.25	0.06	0.26	0.06	0.32	0.07	0.07	
9	anatomy and physiology principles	448	4.23	0.04	764	4.43	0.02	249	4.35	0.04	-0.20	0.04	-0.12	0.08	0.08	
10	aseptic and sterile techniques	454	4.71	0.03	763	4.79	0.02	249	4.54	0.04	-0.07	0.04	0.17	0.24	0.24	
11	assignment/delegation	453	3.96	0.04	766	3.91	0.03	251	3.70	0.06	0.05	0.06	0.26	0.21	0.21	
12	availability of resources (e.g., community, referral, interdisciplinary team)	453	3.75	0.04	761	3.58	0.03	249	3.30	0.06	0.17	0.06	0.45	0.28	0.28	
13	basic cardiac rhythms	453	4.19	0.04	765	3.63	0.04	249	3.58	0.07	0.57	0.07	0.61	0.04	0.04	
14	basic life support (BLS)	452	4.54	0.04	761	4.74	0.02	249	4.51	0.05	-0.20	0.05	0.02	0.22	0.22	
15	basic mathematics	450	4.11	0.04	762	4.47	0.03	251	4.12	0.05	-0.36	0.05	-0.01	0.35	0.35	
16	behavioral disorders	452	3.81	0.04	767	3.68	0.03	251	3.68	0.05	0.12	0.05	0.13	0.00	0.00	
17	behavioral management	452	3.84	0.04	762	3.71	0.03	250	3.70	0.05	0.13	0.05	0.14	0.01	0.01	
18	bladder and bowel training procedures	454	3.87	0.04	761	3.76	0.03	251	3.66	0.05	0.11	0.05	0.21	0.10	0.10	
19	blood glucose monitoring	454	4.59	0.03	765	4.53	0.02	249	4.43	0.04	0.06	0.04	0.16	0.10	0.10	
20	blood product administration	452	4.10	0.06	762	3.60	0.04	250	3.29	0.09	0.50	0.09	0.81	0.31	0.31	
21	body mechanics	451	4.14	0.04	760	4.31	0.03	248	4.12	0.05	-0.18	0.05	0.02	0.19	0.19	
22	cardiac monitoring	453	4.24	0.05	759	3.28	0.04	248	3.30	0.08	0.96	0.08	0.94	-0.02	-0.02	
23	central venous catheter blood draw	452	3.82	0.06	761	2.56	0.05	250	2.72	0.09	1.26	0.09	1.09	-0.16	-0.16	
24	central venous catheter maintenance	451	4.01	0.06	757	3.17	0.05	252	3.28	0.08	0.84	0.08	0.73	-0.10	-0.10	

Knowledge Statements Subgroup Analysis: Primary Job Title																
Survey Position #	Knowledge Statement	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	Std. Err.	Difference	Std. Err.	Difference	Std. Err.
25	chain of command	455	3.97	0.04	766	4.13	0.03	251	4.00	0.06	-0.16	0.06	-0.03	0.13		
26	chemical toxicity	450	4.27	0.04	761	3.85	0.03	250	3.78	0.06	0.42	0.06	0.49	0.07		
27	circulatory status data collection	452	4.19	0.04	764	4.40	0.03	251	4.02	0.05	-0.21	0.05	0.17	0.38		
28	client abilities and limitations	454	4.13	0.04	761	4.23	0.02	251	3.94	0.05	-0.11	0.05	0.19	0.29		
29	client advocacy	451	4.23	0.04	766	4.33	0.02	250	3.98	0.05	-0.09	0.05	0.25	0.34		
30	client circulatory status	453	4.44	0.03	764	4.53	0.02	249	4.19	0.05	-0.09	0.05	0.25	0.35		
31	client data sources	453	3.90	0.04	766	3.90	0.03	251	3.54	0.06	0.00	0.06	0.36	0.36		
32	client dignity	453	4.40	0.03	762	4.51	0.02	251	4.36	0.05	-0.12	0.05	0.04	0.15		
33	client education	454	4.27	0.04	765	4.28	0.03	250	4.10	0.05	-0.02	0.05	0.17	0.18		
34	client history	453	4.37	0.03	765	4.30	0.03	249	4.16	0.05	0.07	0.05	0.21	0.14		
35	client identification process	455	4.58	0.03	763	4.75	0.02	251	4.53	0.04	-0.17	0.04	0.05	0.23		
36	client medical records	452	4.33	0.03	766	4.16	0.03	248	4.02	0.06	0.18	0.06	0.32	0.14		
37	client monitoring	455	4.49	0.03	766	4.56	0.02	249	4.42	0.04	-0.07	0.04	0.07	0.14		
38	client needs	455	4.41	0.03	763	4.52	0.02	248	4.38	0.04	-0.11	0.04	0.03	0.14		
39	client neurological status	454	4.62	0.03	765	4.61	0.02	249	4.35	0.04	0.01	0.04	0.27	0.26		
40	client physical observations	453	4.38	0.03	762	4.60	0.02	247	4.49	0.04	-0.22	0.04	-0.11	0.11		
41	client plan of care	450	4.30	0.03	764	4.21	0.03	249	4.20	0.05	0.09	0.05	0.10	0.01		
42	client positioning	455	4.35	0.04	761	4.37	0.02	250	4.22	0.04	-0.03	0.04	0.13	0.15		
43	client preferences (e.g., religious, spiritual, cultural, health choices)	457	4.04	0.04	766	3.98	0.03	250	3.79	0.05	0.05	0.05	0.25	0.20		
44	client privacy	453	4.40	0.03	765	4.52	0.02	250	4.38	0.04	-0.12	0.04	0.02	0.14		
45	client rights and responsibilities	454	4.38	0.03	766	4.50	0.02	250	4.39	0.04	-0.12	0.04	-0.01	0.11		
46	client safety	451	4.80	0.02	764	4.87	0.01	248	4.75	0.03	-0.07	0.03	0.06	0.12		
47	client status and condition	454	4.64	0.03	759	4.66	0.02	249	4.53	0.04	-0.02	0.04	0.11	0.14		
48	client stressors (e.g., lifestyle, body changes, environmental)	452	4.15	0.03	766	4.00	0.03	248	3.83	0.05	0.15	0.05	0.31	0.17		
49	client-centered care	453	4.27	0.03	762	4.28	0.03	245	4.16	0.05	0.00	0.05	0.12	0.12		
50	clients with special needs (e.g., newborn complications, developmental delays, Down syndrome)	451	4.26	0.04	767	3.94	0.03	249	3.68	0.06	0.32	0.06	0.58	0.26		

Knowledge Statements Subgroup Analysis: Primary Job Title																
Survey Position #	Knowledge Statement	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	Std. Err.	Difference	Std. Err.	Difference	Std. Err.
51	code of ethics	455	4.36	0.03	765	4.55	0.02	249	4.36	0.05	-0.19	0.05	0.01	0.05	0.20	
52	collaboration	451	4.15	0.03	762	4.18	0.03	248	4.08	0.05	-0.03	0.05	0.07	0.05	0.10	
53	communication barriers	455	4.19	0.04	763	4.19	0.02	249	3.99	0.05	0.00	0.05	0.20	0.05	0.20	
54	communication techniques	454	4.21	0.03	762	4.35	0.02	249	4.12	0.05	-0.14	0.05	0.09	0.05	0.23	
55	complications of labor	453	4.11	0.06	761	3.45	0.04	247	3.21	0.08	0.66	0.08	0.91	0.08	0.25	
56	compression stockings/sequential compression devices (SCD)	453	4.11	0.04	762	4.10	0.03	249	3.78	0.06	0.00	0.06	0.33	0.06	0.32	
57	conflict resolution	454	3.96	0.04	766	4.03	0.03	248	4.00	0.05	-0.08	0.05	-0.05	0.05	0.03	
58	continuing education	452	4.15	0.04	762	4.14	0.03	250	3.97	0.05	0.01	0.05	0.18	0.05	0.17	
59	continuity of care	453	4.21	0.03	763	4.16	0.03	250	4.08	0.05	0.05	0.05	0.13	0.05	0.09	
60	coordination of care	452	4.14	0.03	765	4.04	0.03	250	3.96	0.05	0.10	0.05	0.17	0.05	0.07	
61	coping mechanisms	448	3.99	0.04	764	3.92	0.03	249	3.81	0.05	0.07	0.05	0.19	0.05	0.11	
62	cost effective care	454	3.82	0.04	766	3.74	0.03	250	3.62	0.06	0.08	0.06	0.20	0.06	0.12	
63	data collection	450	4.33	0.03	765	4.33	0.03	248	3.83	0.06	0.00	0.06	0.49	0.06	0.49	
64	de-escalation techniques	447	3.90	0.04	763	3.82	0.03	249	3.75	0.06	0.08	0.06	0.15	0.06	0.07	
65	diagnostic testing	454	4.13	0.04	763	4.00	0.03	249	3.80	0.05	0.13	0.05	0.33	0.05	0.20	
66	dietary restrictions	454	4.23	0.04	763	4.15	0.03	249	3.96	0.05	0.08	0.05	0.27	0.05	0.19	
67	discharge process	453	3.88	0.04	765	3.85	0.03	249	3.79	0.05	0.03	0.05	0.09	0.05	0.06	
68	disease processes	449	4.37	0.04	764	4.46	0.02	248	4.27	0.04	-0.09	0.04	0.10	0.04	0.19	
69	documentation	453	4.72	0.02	764	4.68	0.02	249	4.62	0.03	0.04	0.03	0.10	0.03	0.06	
70	dosage calculation	450	4.68	0.03	763	4.77	0.02	248	4.46	0.05	-0.09	0.05	0.22	0.05	0.31	
71	drainage devices	451	4.04	0.04	759	3.99	0.03	248	3.83	0.05	0.05	0.05	0.21	0.05	0.16	
72	education techniques (e.g., return demonstrations, pamphlet, instruction)	453	4.02	0.04	765	3.93	0.03	247	3.80	0.06	0.09	0.06	0.22	0.06	0.13	
73	electrocardiogram (EKG/ECG)	456	4.02	0.05	765	3.34	0.04	250	3.23	0.07	0.68	0.07	0.80	0.07	0.11	
74	emergency procedures	449	4.63	0.03	765	4.36	0.03	249	4.32	0.05	0.27	0.05	0.31	0.05	0.04	
75	emotional support to client	451	4.17	0.04	762	4.23	0.02	246	4.02	0.05	-0.06	0.05	0.14	0.05	0.20	
76	endotracheal devices	453	4.23	0.05	762	3.49	0.04	250	3.48	0.07	0.74	0.07	0.74	0.07	0.00	
77	enteral tube feeding procedures	452	4.29	0.04	764	4.21	0.03	249	4.07	0.05	0.08	0.05	0.22	0.05	0.14	

Knowledge Statements Subgroup Analysis: Primary Job Title																
Survey Position #	Knowledge Statement	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	Std. Err.	Difference	Std. Err.	Difference	Std. Err.
78	enteral tubes	448	4.25	0.04	763	4.16	0.03	248	4.07	0.05	0.09	0.05	0.09	0.18	0.09	0.09
79	equipment safety check	455	4.39	0.04	763	4.23	0.03	249	4.04	0.05	0.16	0.05	0.16	0.35	0.19	0.19
80	equipment usage	453	4.28	0.04	758	4.13	0.03	246	4.04	0.05	0.16	0.05	0.16	0.24	0.08	0.08
81	evidence-based practice	453	4.05	0.04	759	4.07	0.03	248	3.96	0.06	-0.02	0.06	-0.02	0.08	0.11	0.11
82	fetal heart monitoring	455	4.08	0.06	757	3.15	0.04	246	2.90	0.09	0.92	0.09	0.92	1.18	0.26	0.26
83	gastrointestinal tube feeding administration procedure	450	4.28	0.04	764	4.28	0.03	245	4.09	0.05	0.00	0.05	0.00	0.19	0.19	0.19
84	goal-driven interventions for plan of care	448	4.01	0.04	759	3.88	0.03	248	3.79	0.05	0.13	0.05	0.13	0.22	0.10	0.10
85	group session participation	451	3.52	0.05	762	3.15	0.04	249	2.96	0.07	0.37	0.07	0.37	0.56	0.19	0.19
86	hazardous conditions	454	4.21	0.05	764	4.11	0.03	249	3.96	0.06	0.10	0.06	0.10	0.25	0.14	0.14
87	healthcare access	453	4.00	0.04	765	3.69	0.03	247	3.40	0.06	0.31	0.06	0.31	0.60	0.29	0.29
88	high risk behaviors	453	4.15	0.04	761	3.92	0.03	252	3.78	0.06	0.23	0.06	0.23	0.37	0.14	0.14
89	HIPAA	453	4.66	0.03	762	4.74	0.02	252	4.60	0.04	-0.08	0.04	-0.08	0.06	0.14	0.14
90	immobility related complications	451	4.31	0.03	762	4.39	0.03	249	4.18	0.05	-0.08	0.05	-0.08	0.13	0.21	0.21
91	immunizations	451	4.07	0.04	759	3.92	0.03	251	3.75	0.06	0.15	0.06	0.15	0.32	0.17	0.17
92	impairments (e.g., chemical, physical, emotional)	452	4.12	0.04	759	3.91	0.03	251	3.86	0.05	0.22	0.05	0.22	0.26	0.04	0.04
93	incident reporting	454	4.36	0.03	759	4.17	0.03	249	4.19	0.05	0.19	0.05	0.19	0.17	-0.03	-0.03
94	infection control	450	4.71	0.03	760	4.74	0.02	249	4.62	0.04	-0.03	0.04	-0.03	0.09	0.11	0.11
95	information technology	454	3.85	0.04	761	3.82	0.03	252	3.72	0.06	0.04	0.06	0.04	0.14	0.10	0.10
96	informed consent	454	4.44	0.04	760	4.39	0.03	252	4.17	0.05	0.05	0.05	0.05	0.27	0.22	0.22
97	intake/output procedures	451	4.18	0.04	760	4.34	0.03	249	3.97	0.05	-0.16	0.05	-0.16	0.21	0.37	0.37
98	interdisciplinary providers	453	3.80	0.04	756	3.56	0.03	251	3.47	0.06	0.23	0.06	0.23	0.33	0.09	0.09
99	intravenous equipment	451	4.15	0.05	757	3.91	0.03	250	3.82	0.06	0.24	0.06	0.24	0.33	0.08	0.08
100	intravenous piggyback (secondary) medications	452	4.16	0.05	758	3.91	0.04	250	3.84	0.07	0.25	0.07	0.25	0.32	0.07	0.07
101	irrigation procedures	453	4.13	0.04	756	3.94	0.03	250	3.90	0.05	0.19	0.05	0.19	0.23	0.04	0.04
102	isolation protocols	450	4.48	0.04	760	4.51	0.02	252	4.29	0.05	-0.03	0.05	-0.03	0.19	0.22	0.22
103	laboratory values	450	4.54	0.03	759	4.36	0.03	251	4.15	0.05	0.17	0.05	0.17	0.39	0.21	0.21

Knowledge Statements Subgroup Analysis: Primary Job Title																
Survey Position #	Knowledge Statement	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	Std. Err.	Difference	Std. Err.	Difference	Std. Err.
104	least restrictive environment	446	3.85	0.04	752	3.79	0.03	248	3.69	0.06	0.06	0.06	0.16	0.10	0.10	0.10
105	legal scope of practice	449	4.55	0.03	758	4.70	0.02	250	4.53	0.04	-0.15	0.03	0.03	0.18	0.18	0.18
106	licensure requirements	453	4.45	0.03	755	4.58	0.02	251	4.45	0.05	-0.13	0.00	0.00	0.13	0.13	0.13
107	mandatory reporting guidelines	450	4.30	0.04	756	4.40	0.03	250	4.34	0.05	-0.10	-0.04	-0.04	0.06	0.06	0.06
108	material safety data sheets (MSDS)	451	4.00	0.04	757	3.68	0.03	250	3.65	0.06	0.33	0.35	0.35	0.03	0.03	0.03
109	measurement conversions	453	4.27	0.04	756	4.31	0.03	249	3.94	0.06	-0.04	0.33	0.33	0.37	0.37	0.37
110	medication administration	453	4.81	0.02	757	4.89	0.01	247	4.77	0.03	-0.08	0.03	0.03	0.12	0.12	0.12
111	medication administration devices (e.g., syringes, needles)	453	4.75	0.02	759	4.83	0.02	252	4.71	0.03	-0.07	0.05	0.05	0.12	0.12	0.12
112	medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	452	4.82	0.02	752	4.86	0.01	253	4.76	0.03	-0.04	0.06	0.06	0.10	0.10	0.10
113	medication adverse reactions	452	4.75	0.02	756	4.78	0.02	251	4.66	0.03	-0.04	0.08	0.08	0.12	0.12	0.12
114	medication classifications	453	4.43	0.04	758	4.49	0.02	251	4.27	0.05	-0.06	0.15	0.15	0.22	0.22	0.22
115	medication compatibilities (e.g., prescription, non-prescription)	453	4.54	0.03	761	4.52	0.03	251	4.39	0.05	0.02	0.15	0.15	0.13	0.13	0.13
116	medication indications	452	4.50	0.03	756	4.55	0.02	250	4.38	0.04	-0.05	0.12	0.12	0.17	0.17	0.17
117	medication names (e.g., generic versus trade names)	453	4.38	0.04	759	4.38	0.03	249	4.22	0.05	0.00	0.16	0.16	0.16	0.16	0.16
118	medication preparation	452	4.63	0.03	755	4.70	0.02	251	4.50	0.04	-0.06	0.14	0.14	0.20	0.20	0.20
119	medication reconciliation	450	4.48	0.03	754	4.45	0.03	250	4.42	0.05	0.02	0.06	0.06	0.03	0.03	0.03
120	medication rights	454	4.65	0.03	756	4.80	0.02	251	4.58	0.04	-0.15	0.07	0.07	0.22	0.22	0.22
121	medication safety	453	4.78	0.02	758	4.89	0.01	251	4.70	0.03	-0.11	0.08	0.08	0.19	0.19	0.19
122	medication side effects	452	4.68	0.03	754	4.68	0.02	248	4.53	0.04	0.00	0.15	0.15	0.15	0.15	0.15
123	medication storage practice	450	4.49	0.03	760	4.37	0.03	248	4.27	0.05	0.12	0.22	0.22	0.11	0.11	0.11
124	medication therapeutic effects	453	4.50	0.03	757	4.59	0.02	251	4.35	0.04	-0.08	0.15	0.15	0.23	0.23	0.23
125	medication/dietary interaction	452	4.49	0.03	756	4.42	0.03	249	4.21	0.05	0.07	0.28	0.28	0.21	0.21	0.21
126	mobility techniques	449	4.02	0.04	754	4.05	0.03	249	3.82	0.05	-0.03	0.20	0.20	0.23	0.23	0.23
127	nasogastric (NG) tube insertion	451	4.17	0.05	754	3.86	0.04	250	3.48	0.08	0.31	0.69	0.69	0.38	0.38	0.38
128	nasogastric (NG) tube maintenance	453	4.22	0.05	756	4.13	0.03	249	3.73	0.07	0.09	0.49	0.49	0.40	0.40	0.40

Knowledge Statements Subgroup Analysis: Primary Job Title

Survey Position #	Knowledge Statement	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	Std. Err.	Difference	Std. Err.	Difference	Std. Err.
129	nasogastric (NG) tube removal	453	4.12	0.05	755	4.01	0.03	251	3.59	0.07	0.11	0.53	0.42			
130	nasogastric (NG) tube suctioning	452	4.23	0.05	753	4.07	0.03	249	3.69	0.07	0.16	0.54	0.38			
131	neurological status data collection	454	4.42	0.04	756	4.44	0.03	248	4.09	0.06	-0.02	0.33	0.35			
132	newborn care	454	4.03	0.06	757	3.50	0.04	249	3.08	0.08	0.52	0.95	0.43			
133	non-pharmacological interventions for pain relief	455	4.02	0.04	761	4.14	0.03	253	4.06	0.05	-0.12	-0.04	0.08			
134	non-pharmacological sleep interventions	456	3.86	0.04	762	3.97	0.03	251	3.87	0.05	-0.11	-0.01	0.10			
135	nonverbal indicators of pain	453	4.38	0.03	760	4.35	0.02	250	4.38	0.04	0.03	0.01	-0.03			
136	nursing interventions	454	4.47	0.03	754	4.55	0.02	247	4.43	0.04	-0.08	0.04	0.12			
137	nutritional formulas	452	3.88	0.04	759	3.45	0.03	248	3.38	0.06	0.42	0.49	0.07			
138	nutritional needs	453	4.11	0.04	757	3.99	0.03	250	3.79	0.05	0.12	0.32	0.20			
139	objective data collection	454	4.34	0.03	758	4.46	0.02	248	4.06	0.06	-0.12	0.28	0.40			
140	order from the health care provider	454	4.52	0.03	757	4.43	0.03	246	4.29	0.05	0.09	0.23	0.14			
141	orthosis (e.g., traction, splint, brace)	451	3.94	0.04	760	3.66	0.03	248	3.53	0.06	0.28	0.41	0.13			
142	ostomy care	454	4.19	0.04	759	3.93	0.03	247	3.92	0.05	0.25	0.27	0.01			
143	ostomy devices	451	4.13	0.04	759	3.88	0.03	250	3.90	0.05	0.24	0.22	-0.02			
144	oxygen saturation	453	4.67	0.03	756	4.55	0.02	249	4.42	0.04	0.12	0.25	0.13			
145	pacemaker devices	453	4.32	0.04	757	3.59	0.03	247	3.68	0.06	0.73	0.64	-0.09			
146	pain rating scales	456	4.37	0.03	756	4.53	0.02	244	4.45	0.04	-0.16	-0.08	0.08			
147	peripheral intravenous (IV) catheter insertion	452	4.15	0.05	758	3.74	0.04	250	3.84	0.08	0.42	0.31	-0.11			
148	peripheral intravenous (IV) catheter maintenance	456	4.25	0.05	760	4.19	0.03	248	4.10	0.06	0.06	0.15	0.09			
149	peripheral intravenous (IV) catheter removal	454	4.16	0.05	759	4.12	0.03	250	4.02	0.06	0.05	0.14	0.10			
150	personal/professional limitations	454	4.26	0.04	759	4.52	0.02	250	4.42	0.05	-0.26	-0.15	0.10			
151	postmortem care	453	3.87	0.05	755	3.69	0.03	250	3.51	0.06	0.18	0.37	0.18			
152	postpartum care	452	3.91	0.05	759	3.55	0.04	251	3.16	0.08	0.36	0.75	0.39			
153	potential client risks	452	4.25	0.04	758	4.23	0.03	249	3.84	0.06	0.02	0.41	0.39			

Knowledge Statements Subgroup Analysis: Primary Job Title																
Survey Position #	Knowledge Statement	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	Std. Err.	Difference	Std. Err.	Difference	Std. Err.
154	prenatal complication	454	4.09	0.05	760	3.53	0.04	249	3.16	0.08	0.56	0.08	0.93	0.08	0.37	
155	preventative health care	452	4.15	0.04	756	4.11	0.03	250	3.75	0.06	0.05	0.06	0.40	0.06	0.36	
156	prior level of ADL functioning	451	4.08	0.04	755	4.01	0.03	249	3.86	0.05	0.07	0.05	0.22	0.05	0.16	
157	prioritization of client care based on their conditions	451	4.41	0.04	759	4.50	0.02	250	4.25	0.05	-0.09	0.05	0.16	0.05	0.26	
158	professional code of conduct	454	4.33	0.03	760	4.58	0.02	248	4.46	0.04	-0.25	0.04	-0.13	0.04	0.12	
159	professional development	454	4.12	0.04	759	4.13	0.03	251	4.07	0.05	-0.02	0.05	0.05	0.05	0.06	
160	psychological barriers	450	4.01	0.04	756	3.87	0.03	250	3.74	0.05	0.14	0.05	0.27	0.05	0.13	
161	psychosocial implications of isolation	450	4.04	0.04	762	3.84	0.03	249	3.72	0.05	0.20	0.05	0.32	0.05	0.12	
162	psychosocial needs	453	4.10	0.04	762	4.03	0.03	247	3.90	0.05	0.07	0.05	0.20	0.05	0.13	
163	quality improvement (QI)	453	3.99	0.04	761	3.68	0.03	248	3.81	0.05	0.31	0.05	0.17	0.05	-0.13	
164	range of motion	454	4.07	0.04	758	4.11	0.03	248	3.92	0.05	-0.04	0.05	0.15	0.05	0.19	
165	reality orientation	454	3.97	0.04	755	3.91	0.03	250	3.67	0.06	0.06	0.06	0.30	0.06	0.24	
166	recommended health screening	453	3.91	0.04	757	3.73	0.03	248	3.35	0.06	0.19	0.06	0.56	0.06	0.37	
167	referral process	455	3.72	0.05	759	3.42	0.03	248	3.25	0.06	0.30	0.06	0.47	0.06	0.17	
168	remembrance therapy	451	3.57	0.05	758	3.22	0.04	249	2.98	0.06	0.36	0.06	0.59	0.06	0.23	
169	reporting process	451	4.19	0.04	754	4.15	0.03	250	4.08	0.05	0.04	0.05	0.10	0.05	0.06	
170	respiratory status	451	4.72	0.03	755	4.74	0.02	246	4.54	0.04	-0.02	0.04	0.18	0.04	0.20	
171	restraints	451	3.98	0.05	757	4.20	0.03	244	4.01	0.07	-0.21	0.07	-0.03	0.07	0.18	
172	seclusion protocols	452	3.87	0.05	758	3.63	0.04	250	3.61	0.08	0.24	0.08	0.26	0.08	0.02	
173	security alert	451	4.16	0.04	752	4.07	0.03	250	3.96	0.06	0.09	0.06	0.21	0.06	0.11	
174	self-advocacy	453	4.05	0.04	759	3.96	0.03	247	3.69	0.06	0.09	0.06	0.36	0.06	0.27	
175	sensory/perceptual alterations	454	4.12	0.04	756	4.11	0.03	246	3.79	0.06	0.01	0.06	0.33	0.06	0.32	
176	signs and symptoms of acute illness	454	4.62	0.03	757	4.65	0.02	247	4.67	0.03	-0.04	0.03	-0.05	0.03	-0.02	
177	signs and symptoms of allergic reaction	454	4.84	0.02	758	4.81	0.02	245	4.75	0.03	0.03	0.03	0.09	0.03	0.06	
178	signs and symptoms of chronic illness	454	4.48	0.03	766	4.37	0.02	251	4.36	0.04	0.12	0.04	0.12	0.04	0.00	
179	signs and symptoms of hyperglycemia	454	4.77	0.02	766	4.75	0.02	249	4.72	0.03	0.02	0.03	0.05	0.03	0.03	
180	signs and symptoms of hypoglycemia	453	4.79	0.02	767	4.83	0.02	248	4.75	0.03	-0.04	0.03	0.04	0.03	0.07	

Knowledge Statements Subgroup Analysis: Primary Job Title																
Survey Position #	Knowledge Statement	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	Std. Err.	Difference	Std. Err.	Difference	Std. Err.
181	signs and symptoms of impending complications	451	4.68	0.03	765	4.70	0.02	249	4.62	0.03	-0.02	0.06	0.08			
182	skills and capabilities of assistive personnel	447	4.17	0.04	767	4.07	0.03	249	3.80	0.06	0.11	0.38	0.27			
183	skin care	452	4.34	0.03	766	4.37	0.02	249	4.28	0.05	-0.03	0.06	0.09			
184	skin integrity	454	4.46	0.03	766	4.43	0.02	245	4.36	0.04	0.03	0.10	0.07			
185	specimen collection procedure	453	4.29	0.03	764	4.14	0.03	249	4.03	0.05	0.15	0.27	0.12			
186	staff education	450	4.13	0.04	768	3.62	0.03	250	3.66	0.06	0.51	0.46	-0.04			
187	staff roles and responsibilities	456	4.18	0.04	768	3.92	0.03	251	3.83	0.05	0.27	0.35	0.08			
188	staff safety	453	4.36	0.03	766	4.16	0.03	247	4.06	0.05	0.20	0.30	0.10			
189	stages of grieving	453	4.00	0.04	768	3.86	0.03	249	3.69	0.05	0.14	0.31	0.17			
190	stages of growth and development	454	3.91	0.05	766	3.90	0.03	249	3.41	0.06	0.01	0.50	0.49			
191	stages of labor	455	3.87	0.06	767	3.33	0.04	248	2.97	0.08	0.54	0.89	0.36			
192	stages of pregnancy	453	3.82	0.05	761	3.34	0.04	247	2.99	0.08	0.47	0.83	0.35			
193	standard/universal precautions	455	4.64	0.03	766	4.76	0.02	248	4.60	0.04	-0.12	0.05	0.17			
194	standards of care	454	4.41	0.03	766	4.51	0.02	247	4.46	0.04	-0.10	-0.04	0.05			
195	substance abuse	456	4.05	0.04	769	3.90	0.03	249	3.68	0.06	0.16	0.37	0.21			
196	substance abuse withdrawal	455	4.11	0.04	765	3.95	0.03	249	3.66	0.06	0.15	0.45	0.29			
197	supervisory skills	454	4.00	0.04	768	3.47	0.03	249	3.47	0.07	0.54	0.53	-0.01			
198	surgical procedure	454	4.00	0.05	766	3.46	0.04	248	3.22	0.07	0.54	0.78	0.24			
199	suture or staple removal	454	3.93	0.05	767	3.72	0.04	250	3.54	0.06	0.21	0.39	0.18			
200	techniques of client handling	451	4.15	0.04	765	4.05	0.03	248	3.81	0.05	0.11	0.34	0.24			
201	temperature regulation interventions	447	4.17	0.04	767	4.11	0.03	250	3.76	0.06	0.06	0.41	0.35			
202	therapeutic environment	453	4.02	0.04	765	3.98	0.03	250	3.66	0.05	0.04	0.36	0.32			
203	time-out procedure	453	3.75	0.05	762	3.61	0.04	246	3.33	0.08	0.14	0.43	0.29			
204	tracheostomy care	453	4.33	0.04	767	4.04	0.03	247	3.96	0.06	0.29	0.37	0.08			
205	tracheostomy devices	452	4.28	0.04	765	3.94	0.03	248	3.88	0.06	0.34	0.40	0.05			
206	transfer process	451	4.15	0.04	765	4.04	0.03	248	3.88	0.05	0.11	0.27	0.16			
207	transfer techniques	452	4.18	0.04	760	4.18	0.03	248	4.03	0.05	-0.01	0.15	0.15			

Knowledge Statements Subgroup Analysis: Primary Job Title																
Survey Position #	Knowledge Statement	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	Std. Err.	Difference	Std. Err.	Difference	Std. Err.
208	types of incontinence	454	3.98	0.04	763	3.85	0.03	249	3.80	0.05	0.13	0.05	0.17	0.04	0.04	0.04
209	types of pain	453	4.35	0.03	763	4.31	0.03	246	4.31	0.05	0.05	0.05	0.04	0.00	0.00	0.00
210	urinary catheter insertion techniques	452	4.49	0.04	767	4.50	0.02	251	4.35	0.05	-0.02	0.05	0.14	0.16	0.16	0.16
211	urinary catheter maintenance	453	4.42	0.04	769	4.44	0.02	247	4.33	0.04	-0.03	0.04	0.08	0.11	0.11	0.11
212	urinary catheter removal techniques	455	4.31	0.04	766	4.36	0.03	248	4.29	0.05	-0.04	0.05	0.03	0.07	0.07	0.07
213	urinary retention	455	4.29	0.04	763	4.22	0.03	246	4.19	0.05	0.07	0.05	0.10	0.03	0.03	0.03
214	validation therapy	451	3.83	0.05	756	3.29	0.04	246	3.18	0.07	0.54	0.07	0.65	0.11	0.11	0.11
215	venipuncture for blood draws	454	4.15	0.05	766	3.42	0.04	249	3.36	0.07	0.73	0.07	0.79	0.07	0.07	0.07
216	ventilators	454	4.20	0.05	760	3.08	0.04	247	3.10	0.09	1.12	0.09	1.10	-0.02	-0.02	-0.02
217	vital signs	456	4.78	0.02	766	4.82	0.02	249	4.67	0.04	-0.04	0.04	0.11	0.15	0.15	0.15
218	workplace violence	453	4.07	0.04	766	3.94	0.03	248	3.83	0.06	0.12	0.06	0.24	0.11	0.11	0.11
219	wound care	456	4.58	0.03	768	4.46	0.02	249	4.42	0.04	0.12	0.04	0.16	0.04	0.04	0.04

APPENDIX I: KNOWLEDGE STATEMENTS SUBGROUP ANALYSIS: FACILITY

Knowledge Statements Subgroup Analysis: Facility													
Survey Position #	Knowledge Statement	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	abnormal findings	506	4.78	0.02	436	4.74	0.02	202	4.77	0.04	247	4.80	0.03
2	acceptable abbreviations	505	4.13	0.04	433	4.02	0.04	203	4.10	0.06	247	4.25	0.05
3	activities of daily living (ADLs)	504	4.03	0.03	433	4.01	0.04	204	3.98	0.06	244	4.14	0.05
4	adaptive equipment	497	3.69	0.04	434	3.82	0.04	202	3.76	0.06	246	3.83	0.05
5	advance directives	504	3.97	0.04	432	4.26	0.04	203	4.05	0.06	246	4.08	0.05
6	age specific requirements for care	505	4.14	0.04	432	3.96	0.04	203	4.08	0.06	245	4.24	0.04
7	allergies	498	4.64	0.03	431	4.60	0.03	204	4.64	0.05	244	4.64	0.04
8	alternative/complementary therapies	502	3.26	0.04	428	3.44	0.04	201	3.50	0.07	246	3.43	0.06
9	anatomy and physiology principles	503	4.39	0.03	432	4.27	0.03	202	4.34	0.05	246	4.40	0.04
10	aseptic and sterile techniques	503	4.74	0.02	433	4.67	0.03	203	4.70	0.04	247	4.77	0.03
11	assignment/delegation	505	3.80	0.04	433	3.92	0.04	204	3.94	0.06	247	3.96	0.05
12	availability of resources (e.g., community, referral, interdisciplinary team)	504	3.48	0.04	430	3.64	0.04	203	3.68	0.06	246	3.59	0.05
13	basic cardiac rhythms	503	3.64	0.04	432	3.88	0.05	204	4.03	0.07	246	3.70	0.07
14	basic life support (BLS)	502	4.72	0.02	431	4.54	0.04	201	4.56	0.05	246	4.72	0.04
15	basic mathematics	502	4.43	0.03	432	4.17	0.04	203	4.12	0.06	246	4.38	0.05
16	behavioral disorders	506	3.59	0.04	431	3.81	0.04	204	3.75	0.06	247	3.79	0.05
17	behavioral management	505	3.63	0.04	429	3.87	0.04	204	3.74	0.06	245	3.80	0.05
18	bladder and bowel training procedures	506	3.67	0.04	431	3.81	0.04	204	3.78	0.07	245	3.87	0.05
19	blood glucose monitoring	503	4.45	0.03	432	4.65	0.03	205	4.45	0.06	247	4.55	0.04
20	blood product administration	504	3.61	0.05	431	3.71	0.07	203	3.76	0.10	245	3.80	0.08
21	body mechanics	501	4.30	0.03	432	4.16	0.04	200	4.19	0.06	245	4.22	0.05
22	cardiac monitoring	501	3.38	0.05	431	3.73	0.06	204	3.88	0.08	245	3.50	0.07
23	central venous catheter blood draw	502	2.65	0.06	431	3.20	0.07	205	3.40	0.10	246	2.83	0.09
24	central venous catheter maintenance	500	3.19	0.06	430	3.64	0.06	205	3.72	0.09	243	3.36	0.08
25	chain of command	505	4.08	0.04	432	3.98	0.04	205	4.05	0.06	247	4.15	0.05
26	chemical toxicity	504	3.75	0.04	430	4.09	0.05	205	4.11	0.07	244	4.01	0.06
27	circulatory status data collection	505	4.30	0.04	433	4.25	0.04	204	4.14	0.07	246	4.33	0.05
28	client abilities and limitations	504	4.09	0.03	434	4.12	0.03	203	4.16	0.06	245	4.28	0.04
29	client advocacy	506	4.23	0.03	433	4.19	0.04	203	4.22	0.06	244	4.31	0.05
30	client circulatory status	503	4.47	0.03	432	4.43	0.03	203	4.34	0.06	247	4.51	0.04

Knowledge Statements Subgroup Analysis: Facility													
Survey Position #	Knowledge Statement	Hospital			Long-term Care			Community-based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
31	client data sources	504	3.78	0.04	433	3.82	0.04	205	3.80	0.06	247	3.96	0.05
32	client dignity	503	4.47	0.03	433	4.39	0.03	204	4.41	0.05	246	4.52	0.04
33	client education	505	4.31	0.03	433	4.15	0.04	205	4.30	0.05	246	4.24	0.05
34	client history	504	4.26	0.03	433	4.29	0.03	203	4.36	0.05	247	4.33	0.04
35	client identification process	505	4.70	0.03	435	4.59	0.03	204	4.58	0.05	246	4.74	0.03
36	client medical records	505	4.11	0.04	431	4.22	0.04	203	4.27	0.05	247	4.23	0.05
37	client monitoring	504	4.46	0.03	434	4.51	0.03	205	4.53	0.04	247	4.57	0.04
38	client needs	504	4.47	0.03	433	4.41	0.03	204	4.44	0.04	245	4.52	0.04
39	client neurological status	506	4.53	0.03	431	4.55	0.03	203	4.57	0.05	247	4.66	0.03
40	client physical observations	501	4.57	0.03	434	4.46	0.03	204	4.44	0.05	244	4.55	0.04
41	client plan of care	502	4.19	0.03	433	4.23	0.03	204	4.26	0.05	245	4.29	0.05
42	client positioning	504	4.31	0.03	432	4.34	0.03	204	4.26	0.06	246	4.41	0.04
43	client preferences (e.g., religious, spiritual, cultural, health choices)	505	3.91	0.03	434	3.90	0.04	205	4.05	0.06	247	4.07	0.04
44	client privacy	504	4.47	0.03	431	4.39	0.03	205	4.45	0.05	247	4.50	0.04
45	client rights and responsibilities	505	4.44	0.03	432	4.40	0.03	204	4.43	0.05	247	4.52	0.04
46	client safety	504	4.86	0.02	428	4.78	0.02	203	4.83	0.03	247	4.84	0.03
47	client status and condition	503	4.64	0.02	430	4.60	0.03	204	4.61	0.04	243	4.67	0.03
48	client stressors (e.g., lifestyle, body changes, environmental)	505	3.93	0.03	430	4.01	0.04	204	4.11	0.05	246	4.07	0.05
49	client-centered care	503	4.27	0.03	429	4.20	0.03	202	4.25	0.05	246	4.28	0.04
50	clients with special needs (e.g., newborn complications, developmental delays, Down syndrome)	505	3.94	0.04	431	3.96	0.05	203	4.09	0.07	247	4.06	0.05
51	code of ethics	505	4.51	0.03	432	4.38	0.03	204	4.39	0.05	246	4.54	0.04
52	collaboration	505	4.16	0.03	428	4.07	0.04	200	4.14	0.05	247	4.24	0.05
53	communication barriers	503	4.12	0.03	432	4.09	0.04	204	4.17	0.06	246	4.23	0.04
54	communication techniques	504	4.29	0.03	430	4.18	0.03	204	4.22	0.05	246	4.34	0.04
55	complications of labor	500	3.43	0.05	430	3.69	0.06	204	3.77	0.09	245	3.73	0.08
56	compression stockings/ sequential compression devices (SCD)	503	4.06	0.04	431	4.00	0.04	205	3.96	0.08	245	4.13	0.05
57	conflict resolution	503	4.00	0.04	431	3.95	0.04	204	3.99	0.06	247	4.09	0.05
58	continuing education	503	4.10	0.04	433	4.05	0.04	202	4.14	0.06	245	4.19	0.05
59	continuity of care	502	4.11	0.03	432	4.13	0.03	205	4.21	0.05	247	4.23	0.04
60	coordination of care	504	3.98	0.03	431	4.04	0.04	204	4.13	0.05	247	4.16	0.05
61	coping mechanisms	503	3.84	0.03	430	3.93	0.04	203	4.00	0.06	246	3.98	0.05
62	cost effective care	505	3.69	0.04	433	3.72	0.04	204	3.80	0.06	247	3.85	0.05
63	data collection	503	4.21	0.04	431	4.19	0.04	201	4.31	0.05	247	4.34	0.05

Knowledge Statements Subgroup Analysis: Facility													
Survey Position #	Knowledge Statement	Hospital			Long-term Care			Community-based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
64	de-escalation techniques	503	3.77	0.04	428	3.78	0.04	202	3.88	0.07	246	3.93	0.06
65	diagnostic testing	502	3.95	0.03	432	4.03	0.04	204	4.00	0.06	247	4.06	0.05
66	dietary restrictions	503	4.10	0.03	431	4.15	0.04	203	4.13	0.06	247	4.18	0.05
67	discharge process	502	3.76	0.04	432	3.86	0.04	204	3.83	0.07	247	3.93	0.05
68	disease processes	502	4.40	0.03	430	4.40	0.03	203	4.32	0.06	247	4.41	0.04
69	documentation	502	4.63	0.03	430	4.70	0.02	205	4.73	0.03	247	4.71	0.03
70	dosage calculation	501	4.72	0.03	430	4.64	0.03	202	4.60	0.06	246	4.77	0.04
71	drainage devices	497	3.94	0.04	432	3.98	0.04	201	3.86	0.07	245	4.07	0.05
72	education techniques (e.g., return demonstrations, pamphlet, instruction)	502	3.88	0.04	432	3.90	0.04	204	4.05	0.06	246	3.96	0.05
73	electrocardiogram (EKG/ECG)	504	3.39	0.05	433	3.58	0.05	205	3.71	0.08	247	3.58	0.07
74	emergency procedures	504	4.37	0.03	429	4.50	0.03	203	4.57	0.05	246	4.36	0.05
75	emotional support to client	501	4.15	0.03	428	4.13	0.03	201	4.21	0.05	247	4.22	0.04
76	endotracheal devices	500	3.44	0.05	432	3.90	0.05	204	3.91	0.08	247	3.75	0.07
77	enteral tube feeding procedures	503	4.11	0.04	431	4.33	0.03	203	4.11	0.07	247	4.28	0.05
78	enteral tubes	502	4.08	0.04	427	4.29	0.04	204	4.06	0.07	246	4.26	0.05
79	equipment safety check	502	4.19	0.04	432	4.26	0.04	204	4.23	0.06	247	4.33	0.05
80	equipment usage	499	4.11	0.03	428	4.16	0.04	203	4.21	0.06	245	4.20	0.05
81	evidence-based practice	499	4.09	0.04	430	4.01	0.04	204	3.94	0.07	244	4.11	0.05
82	fetal heart monitoring	500	3.10	0.06	429	3.55	0.07	201	3.65	0.10	246	3.51	0.08
83	gastrointestinal tube feeding administration procedure	502	4.15	0.04	427	4.37	0.04	204	4.19	0.07	246	4.30	0.05
84	goal-driven interventions for plan of care	501	3.85	0.04	428	3.93	0.04	203	3.95	0.07	244	3.93	0.06
85	group session participation	501	3.09	0.05	430	3.25	0.05	204	3.34	0.08	247	3.35	0.07
86	hazardous conditions	503	4.03	0.04	432	4.11	0.05	205	4.15	0.07	246	4.24	0.06
87	healthcare access	504	3.60	0.04	431	3.77	0.05	203	3.87	0.06	247	3.83	0.06
88	high risk behaviors	502	3.80	0.04	433	4.00	0.04	205	4.03	0.07	245	4.10	0.05
89	HIPAA	502	4.72	0.02	433	4.61	0.03	205	4.73	0.04	246	4.73	0.03
90	immobility related complications	501	4.33	0.03	430	4.35	0.03	203	4.19	0.06	246	4.36	0.04
91	immunizations	502	3.86	0.04	430	3.94	0.04	204	4.03	0.07	245	4.00	0.05
92	impairments (e.g., chemical, physical, emotional)	501	3.88	0.03	433	3.99	0.04	204	4.03	0.06	244	3.98	0.05
93	incident reporting	502	4.06	0.04	432	4.35	0.03	203	4.27	0.06	244	4.30	0.05
94	infection control	501	4.69	0.03	428	4.72	0.03	203	4.71	0.04	245	4.72	0.03
95	information technology	503	3.79	0.04	434	3.81	0.04	204	3.80	0.07	245	3.88	0.05
96	informed consent	503	4.36	0.03	432	4.28	0.04	204	4.42	0.05	246	4.46	0.04
97	intake/output procedures	500	4.29	0.03	430	4.15	0.04	203	4.10	0.07	245	4.30	0.05

Knowledge Statements Subgroup Analysis: Facility													
Survey Position #	Knowledge Statement	Hospital			Long-term Care			Community-based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
98	interdisciplinary providers	500	3.52	0.04	429	3.63	0.04	205	3.69	0.07	245	3.68	0.05
99	intravenous equipment	500	3.87	0.04	429	3.98	0.05	201	4.01	0.08	246	4.11	0.06
100	intravenous piggyback (secondary) medications	502	3.90	0.05	429	3.97	0.05	203	4.01	0.08	245	4.11	0.06
101	irrigation procedures	499	3.87	0.04	431	4.05	0.04	203	4.03	0.07	244	4.02	0.06
102	isolation protocols	501	4.45	0.03	430	4.50	0.03	204	4.27	0.07	246	4.50	0.05
103	laboratory values	501	4.33	0.03	429	4.45	0.03	203	4.30	0.06	246	4.42	0.04
104	least restrictive environment	499	3.70	0.04	424	3.82	0.04	200	3.70	0.07	243	3.95	0.06
105	legal scope of practice	500	4.67	0.03	429	4.58	0.03	204	4.50	0.05	245	4.72	0.04
106	licensure requirements	500	4.54	0.03	429	4.46	0.04	204	4.41	0.06	245	4.62	0.04
107	mandatory reporting guidelines	499	4.37	0.03	431	4.36	0.04	204	4.30	0.05	243	4.45	0.04
108	material safety data sheets (MSDS)	499	3.62	0.04	431	3.87	0.05	203	3.80	0.07	244	3.81	0.06
109	measurement conversions	497	4.24	0.04	430	4.21	0.04	205	4.20	0.07	246	4.23	0.06
110	medication administration	498	4.84	0.02	429	4.86	0.02	205	4.79	0.04	245	4.84	0.03
111	medication administration devices (e.g., syringes, needles)	500	4.76	0.02	433	4.79	0.02	204	4.77	0.03	246	4.80	0.03
112	medication administration protocols (e.g., heart rate, blood glucose, blood pressure)	499	4.82	0.02	429	4.84	0.02	204	4.79	0.04	244	4.85	0.03
113	medication adverse reactions	497	4.75	0.02	432	4.75	0.02	205	4.74	0.04	245	4.75	0.03
114	medication classifications	501	4.40	0.03	430	4.46	0.03	205	4.39	0.05	245	4.48	0.05
115	medication compatibilities (e.g., prescription, non-prescription)	502	4.44	0.03	431	4.54	0.03	205	4.50	0.05	246	4.57	0.05
116	medication indications	501	4.45	0.03	428	4.50	0.03	204	4.50	0.05	244	4.57	0.04
117	medication names (e.g., generic versus trade names)	501	4.29	0.04	432	4.39	0.04	203	4.35	0.06	245	4.41	0.05
118	medication preparation	498	4.62	0.03	430	4.66	0.03	204	4.62	0.05	245	4.69	0.04
119	medication reconciliation	500	4.36	0.04	426	4.49	0.03	203	4.49	0.05	244	4.50	0.04
120	medication rights	498	4.73	0.02	434	4.70	0.03	204	4.61	0.05	245	4.76	0.03
121	medication safety	501	4.84	0.02	431	4.79	0.02	205	4.78	0.04	245	4.84	0.03
122	medication side effects	498	4.62	0.03	429	4.67	0.03	204	4.67	0.04	243	4.66	0.04
123	medication storage practice	500	4.27	0.04	430	4.45	0.03	202	4.47	0.05	245	4.42	0.05
124	medication therapeutic effects	501	4.50	0.03	433	4.51	0.03	201	4.48	0.05	245	4.56	0.04
125	medication/dietary interaction	496	4.32	0.03	430	4.43	0.03	205	4.46	0.05	245	4.47	0.04
126	mobility techniques	494	3.97	0.04	427	3.99	0.04	204	3.95	0.06	245	4.04	0.05
127	nasogastric (NG) tube insertion	493	3.83	0.05	431	3.87	0.06	205	3.92	0.09	246	3.94	0.07

Knowledge Statements Subgroup Analysis: Facility													
Survey Position #	Knowledge Statement	Hospital			Long-term Care			Community-based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
128	nasogastric (NG) tube maintenance	498	4.07	0.04	431	4.07	0.05	205	4.01	0.08	244	4.18	0.06
129	nasogastric (NG) tube removal	500	3.97	0.04	433	3.89	0.05	203	3.96	0.08	243	4.07	0.06
130	nasogastric (NG) tube suctioning	495	4.03	0.04	432	4.04	0.05	204	4.00	0.08	244	4.15	0.06
131	neurological status data collection	499	4.38	0.03	431	4.37	0.04	204	4.30	0.06	244	4.39	0.04
132	newborn care	497	3.50	0.05	432	3.54	0.07	204	3.75	0.09	245	3.73	0.07
133	non-pharmacological interventions for pain relief	501	4.09	0.03	435	4.08	0.04	205	4.01	0.06	246	4.15	0.05
134	non-pharmacological sleep interventions	502	3.89	0.03	433	3.92	0.04	205	3.81	0.07	246	4.04	0.05
135	nonverbal indicators of pain	500	4.32	0.03	431	4.40	0.03	205	4.39	0.05	246	4.37	0.04
136	nursing interventions	496	4.52	0.03	430	4.50	0.03	203	4.41	0.05	245	4.56	0.03
137	nutritional formulas	498	3.39	0.04	430	3.67	0.04	205	3.72	0.07	245	3.59	0.06
138	nutritional needs	496	3.91	0.03	433	4.04	0.04	204	3.99	0.06	246	4.04	0.05
139	objective data collection	498	4.34	0.03	432	4.31	0.04	203	4.32	0.05	246	4.47	0.04
140	order from the health care provider	499	4.39	0.03	429	4.48	0.03	203	4.46	0.05	245	4.44	0.05
141	orthosis (e.g., traction, splint, brace)	499	3.58	0.04	430	3.82	0.04	202	3.73	0.08	247	3.81	0.06
142	ostomy care	499	3.90	0.04	432	4.10	0.04	202	4.01	0.07	247	4.02	0.05
143	ostomy devices	499	3.84	0.04	432	4.09	0.04	202	3.94	0.07	247	4.01	0.05
144	oxygen saturation	496	4.51	0.03	432	4.60	0.03	204	4.54	0.05	245	4.61	0.04
145	pacemaker devices	494	3.58	0.04	432	4.06	0.04	204	4.02	0.07	246	3.78	0.06
146	pain rating scales	496	4.48	0.03	432	4.41	0.03	204	4.42	0.05	242	4.57	0.04
147	peripheral intravenous (IV) catheter insertion	500	3.73	0.06	431	3.95	0.06	200	3.98	0.09	247	3.96	0.08
148	peripheral intravenous (IV) catheter maintenance	500	4.19	0.04	432	4.20	0.05	204	4.11	0.08	247	4.28	0.06
149	peripheral intravenous (IV) catheter removal	500	4.10	0.04	433	4.08	0.05	202	4.06	0.08	247	4.23	0.06
150	personal/professional limitations	501	4.47	0.03	434	4.35	0.04	205	4.31	0.06	245	4.51	0.04
151	postmortem care	495	3.61	0.04	432	3.80	0.04	204	3.61	0.08	246	3.79	0.06
152	postpartum care	499	3.53	0.05	432	3.56	0.06	204	3.61	0.09	246	3.68	0.07
153	potential client risks	499	4.17	0.03	429	4.14	0.04	204	4.11	0.07	246	4.24	0.05
154	prenatal complication	500	3.47	0.05	433	3.66	0.06	204	3.82	0.09	246	3.74	0.07
155	preventative health care	496	4.05	0.03	432	4.03	0.04	205	4.07	0.06	247	4.10	0.05
156	prior level of ADL functioning	497	3.97	0.03	432	4.02	0.04	204	3.99	0.07	244	4.04	0.05
157	prioritization of client care based on their conditions	499	4.43	0.03	431	4.39	0.04	204	4.28	0.06	246	4.58	0.04

Knowledge Statements Subgroup Analysis: Facility													
Survey Position #	Knowledge Statement	Hospital			Long-term Care			Community-based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
158	professional code of conduct	499	4.54	0.03	432	4.44	0.03	204	4.38	0.05	246	4.54	0.04
159	professional development	501	4.11	0.03	434	4.11	0.04	203	4.08	0.06	246	4.18	0.05
160	psychological barriers	496	3.81	0.03	433	3.91	0.04	203	3.89	0.07	244	4.00	0.05
161	psychosocial implications of isolation	500	3.78	0.03	430	3.93	0.04	205	3.88	0.07	245	3.96	0.05
162	psychosocial needs	500	3.96	0.03	430	4.07	0.04	204	4.00	0.06	246	4.05	0.05
163	quality improvement (QI)	499	3.68	0.04	432	3.90	0.04	204	3.84	0.07	246	3.79	0.06
164	range of motion	499	4.04	0.03	433	4.06	0.04	203	3.94	0.07	245	4.16	0.05
165	reality orientation	498	3.85	0.04	431	3.84	0.04	204	3.86	0.07	245	3.99	0.06
166	recommended health screening	495	3.64	0.04	433	3.68	0.04	203	3.79	0.07	245	3.82	0.06
167	referral process	498	3.33	0.04	432	3.49	0.05	204	3.66	0.07	246	3.59	0.06
168	reminiscence therapy	499	3.09	0.04	433	3.41	0.05	200	3.33	0.08	246	3.37	0.07
169	reporting process	500	4.06	0.04	433	4.19	0.04	201	4.15	0.06	242	4.21	0.05
170	respiratory status	498	4.70	0.02	428	4.72	0.03	202	4.58	0.05	244	4.73	0.03
171	restraints	496	4.24	0.04	429	4.00	0.05	202	3.79	0.08	245	4.21	0.06
172	seclusion protocols	497	3.64	0.05	432	3.74	0.05	204	3.61	0.08	245	3.75	0.07
173	security alert	494	4.02	0.04	433	4.09	0.04	202	3.90	0.08	245	4.23	0.06
174	self-advocacy	497	3.89	0.04	431	3.93	0.04	204	3.86	0.07	247	4.05	0.05
175	sensory/perceptual alterations	497	4.02	0.03	430	4.03	0.04	204	3.94	0.07	245	4.19	0.05
176	signs and symptoms of acute illness	496	4.61	0.03	430	4.70	0.02	204	4.56	0.05	246	4.67	0.04
177	signs and symptoms of allergic reaction	497	4.78	0.02	432	4.84	0.02	204	4.77	0.03	245	4.82	0.03
178	signs and symptoms of chronic illness	507	4.31	0.03	432	4.49	0.03	206	4.38	0.05	247	4.40	0.04
179	signs and symptoms of hyperglycemia	506	4.71	0.02	430	4.81	0.02	206	4.73	0.04	247	4.75	0.03
180	signs and symptoms of hypoglycemia	506	4.79	0.02	430	4.84	0.02	204	4.75	0.04	247	4.79	0.03
181	signs and symptoms of impending complications	506	4.66	0.02	428	4.71	0.02	205	4.60	0.05	246	4.73	0.03
182	skills and capabilities of assistive personnel	504	4.01	0.03	427	4.06	0.04	205	4.00	0.07	247	4.12	0.05
183	skin care	504	4.33	0.03	432	4.37	0.03	204	4.22	0.06	246	4.37	0.05
184	skin integrity	504	4.41	0.03	432	4.48	0.03	204	4.34	0.06	246	4.42	0.04
185	specimen collection procedure	504	4.11	0.03	432	4.19	0.04	204	4.21	0.05	245	4.20	0.05
186	staff education	505	3.60	0.04	432	3.90	0.04	203	3.91	0.06	247	3.86	0.05
187	staff roles and responsibilities	507	3.88	0.04	436	4.03	0.04	205	4.04	0.06	247	4.04	0.05
188	staff safety	506	4.13	0.03	434	4.22	0.04	200	4.26	0.06	247	4.26	0.05
189	stages of grieving	507	3.79	0.04	432	3.93	0.04	205	3.88	0.06	247	3.92	0.05

Knowledge Statements Subgroup Analysis: Facility													
Survey Position #	Knowledge Statement	Hospital			Long-term Care			Community-based Facility			Other		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
190	stages of growth and development	508	3.83	0.04	431	3.70	0.05	205	3.84	0.07	246	3.95	0.05
191	stages of labor	507	3.27	0.05	432	3.47	0.06	204	3.55	0.09	247	3.59	0.07
192	stages of pregnancy	502	3.28	0.05	430	3.43	0.06	204	3.55	0.09	246	3.61	0.07
193	standard/universal precautions	507	4.73	0.02	432	4.64	0.03	204	4.67	0.04	247	4.75	0.03
194	standards of care	504	4.48	0.03	431	4.44	0.03	206	4.42	0.05	246	4.53	0.04
195	substance abuse	508	3.83	0.04	434	3.90	0.04	206	3.91	0.06	246	4.01	0.06
196	substance abuse withdrawal	504	3.90	0.04	433	3.90	0.05	206	3.98	0.07	247	4.07	0.05
197	supervisory skills	508	3.34	0.04	431	3.88	0.04	206	3.74	0.07	246	3.68	0.06
198	surgical procedure	506	3.43	0.04	432	3.61	0.06	204	3.76	0.08	246	3.66	0.06
199	suture or staple removal	507	3.63	0.04	433	3.81	0.05	205	3.82	0.08	246	3.81	0.07
200	techniques of client handling	506	3.99	0.03	428	4.03	0.04	205	4.02	0.06	246	4.12	0.05
201	temperature regulation interventions	507	4.05	0.03	429	4.08	0.04	202	3.93	0.07	246	4.15	0.05
202	therapeutic environment	507	3.91	0.03	431	3.90	0.04	205	3.91	0.06	244	4.05	0.05
203	time-out procedure	504	3.70	0.05	428	3.42	0.06	204	3.61	0.09	247	3.70	0.07
204	tracheostomy care	504	3.95	0.04	432	4.28	0.04	204	4.07	0.08	246	4.17	0.06
205	tracheostomy devices	504	3.86	0.04	430	4.22	0.04	204	4.02	0.08	247	4.07	0.05
206	transfer process	506	3.98	0.04	430	4.07	0.04	203	4.05	0.07	245	4.10	0.05
207	transfer techniques	501	4.13	0.03	429	4.17	0.04	204	4.10	0.07	247	4.19	0.05
208	types of incontinence	504	3.79	0.04	432	3.93	0.04	203	3.82	0.07	247	3.94	0.06
209	types of pain	502	4.26	0.03	430	4.37	0.03	203	4.26	0.05	246	4.35	0.04
210	urinary catheter insertion techniques	506	4.46	0.03	434	4.50	0.03	203	4.30	0.07	247	4.54	0.05
211	urinary catheter maintenance	507	4.41	0.03	431	4.48	0.03	205	4.24	0.07	246	4.47	0.05
212	urinary catheter removal techniques	504	4.32	0.03	433	4.37	0.03	206	4.19	0.07	247	4.38	0.05
213	urinary retention	502	4.20	0.03	432	4.32	0.03	205	4.10	0.07	245	4.27	0.05
214	validation therapy	504	3.22	0.04	429	3.58	0.05	200	3.60	0.08	243	3.48	0.07
215	venipuncture for blood draws	506	3.45	0.05	433	3.67	0.06	204	3.99	0.08	247	3.63	0.08
216	ventilators	500	3.02	0.06	432	3.69	0.06	205	3.78	0.09	244	3.45	0.08
217	vital signs	506	4.78	0.02	432	4.76	0.02	206	4.75	0.04	246	4.80	0.03
218	workplace violence	504	3.86	0.04	433	3.98	0.05	205	3.95	0.07	247	4.09	0.06
219	wound care	506	4.40	0.03	435	4.57	0.03	205	4.49	0.05	247	4.51	0.04

APPENDIX J: KNOWLEDGE SURVEY NONRESPONDER STUDY

Introduction

NCSBN conducted a knowledge statement survey to assess the knowledge newly licensed practical/vocational nurses (LPN/VNs) need to possess for safe and effective professional practice. The purpose of the study was to inform NCLEX® item development.

The overall analyzable response rate for the 2012 LPN/VN Nursing Knowledge Survey was 25.1%. Of the 6,350 Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors who were invited to take the survey, 1,493 completed and returned a valid survey. NCSBN contacted a sample of the nurses who did not respond to the survey. If there is a systematic difference in the ratings of the knowledge statement between responders and nonresponders, 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 nonresponders did not return the survey in order to increase response rates in future studies.

Methodology

Sample Selection

A random sample of Newly Licensed LPN/VNs, LPN/VN Educators and LPN/VN Supervisors who were invited, but did not respond to the 2012 LPN/VN Nursing Knowledge Survey were contacted via telephone. The sample selected for this study was proportionally equivalent to the population of nonresponders.

Telephone Interview Process

Nonresponders were contacted via telephone by a vendor, using telephone numbers provided by NCSBN. Initially, these nonresponders were asked about their reasons for not completing the 2012 LPN/VN Nursing Knowledge Survey. To facilitate the gathering of data from nonresponders, 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 receive it" or they were asked to provide another response. Next, in order to provide background on nonresponders, 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 2012 LPN/VN Nursing Knowledge Survey. Responses were recorded in a Microsoft Excel© 2007 spreadsheet.

Return Rates

Of the nonresponders who were contacted, 90 individuals participated in the study: 31 Newly Licensed LPN/VNs, 29 LPN/VN Educators and 30 LPN/VN Supervisors.

Nonresponder Results

Reasons for Not Responding

In general, reasons for not responding were listed as "too busy" (27 responses or 30.0%), "did not receive" the survey (45 responses or 50.0%) or "other" (18 responses or 20.0%). See *Figure J-1*.

Time at Current Position

Nonresponders who were Newly Licensed LPN/VNs averaged 4.8 months (0.4 years) at their job compared to responders, who were asked months since graduation, and averaged 11.9 months (almost 1 year). Nonresponder LPN/VN Educators spent an average of 45.3 months (3.8 years) at their position compared to responders who averaged 120.8 months (10.1 years) at their current position. Nonresponder LPN/VN Supervisors spent an average of 80.6 months (6.7 years) at their job compared to responders who spent an average of 154.3 months (12.9 years). See *Figure J-2*.

Employment Setting/Specialty

Similar to responders, the largest percentage of Newly Licensed LPN/VN nonresponders listed their employment setting as nursing home (27.6% for nonresponders and 46.1% for responders). Other/academia (100%) was listed as the most frequent

Figure J.1. Reasons for Not Responding

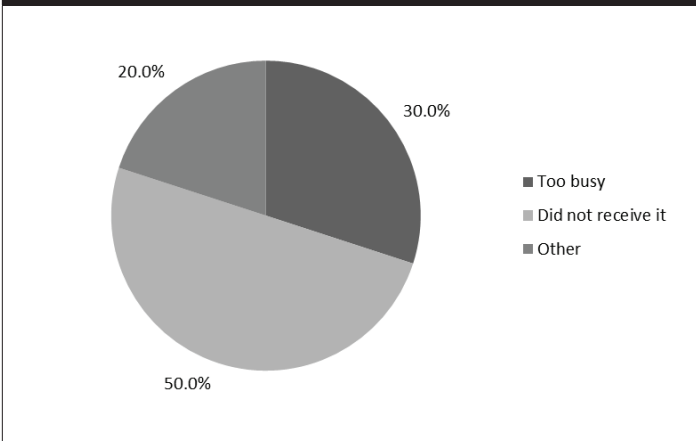
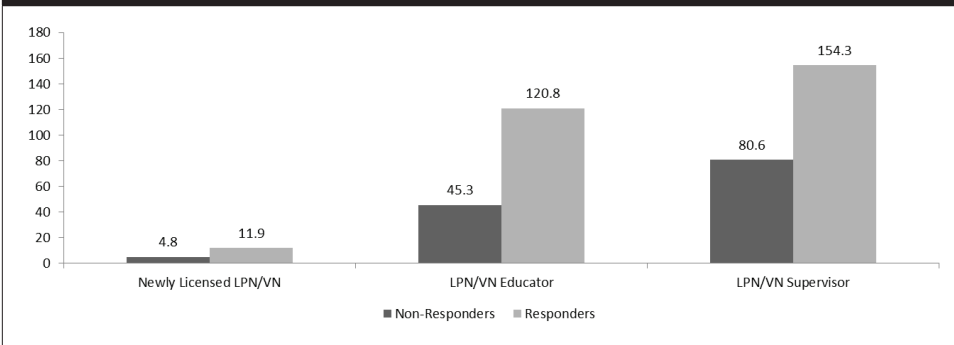


Figure J.2. Months at Position by Job Title



employment setting among LPN/VN Educators in the nonresponder study. The most frequent employment setting among LPN/VN Supervisors in the responder study was nursing homes (48.6%). Among responder LPN/VN Educators, medical/surgical unit was listed as the most frequent employment setting (49.7%); nonresponder supervisors reported other long-term care as the most frequent employment setting (33.3%). Differences between nonresponder and responder results could be due to the classification by the vendor of their setting (the vendor categorized academia for the nonresponder educators, while the survey responders chose their nursing specialty area). See *Table J-1*.

Importance Ratings

Importance ratings of the knowledge statements were provided by the nonresponders and compared to the average rating of the same knowledge statements by survey responders. Overall,

nonresponders and responders had fairly similar ratings of knowledge statements. See *Table J-2*.

Summary

This study found that the responders and nonresponders rated the importance of 10 knowledge statements fairly similar. These findings suggest that there are 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 2012 LPN/VN Nursing Knowledge Survey. Additionally, the findings suggest that individuals were unable to complete the study because they were “too busy,” “did not receive the survey” or due to other reasons. Overall, these results provide important information on the validity of the 2012 LPN/VN Nursing Knowledge Survey and why individuals do not complete surveys.

Table J.1. Employment Setting/Specialty for Responders and Nonresponders

Employment Setting	Responders						Nonresponders					
	Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor		Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor	
	N	%	N	%	N	%	N	%	N	%	N	%
Critical care	15	3.2	69	8.9	28	11	1	3.4	0	0	4	13.3
Medical-surgical unit	39	8.4	385	49.7	63	24.7	1	3.4	0	0	1	3.3
Pediatrics	20	4.3	68	8.8	7	2.7	2	6.9	0	0	0	0
Nursery	0	0	52	6.7	1	0.4	0	0	0	0	0	0
Labor and delivery	3	0.6	72	9.3	4	1.6	0	0	0	0	0	0
Postpartum unit	1	0.2	87	11.2	2	0.8	0	0	0	0	0	0
Psychiatric	19	4.1	84	10.9	16	6.3	1	3.4	0	0	0	0
Operating room	7	1.5	11	1.4	4	1.6	0	0	0	0	0	0
Assisted living	74	15.9	12	1.6	11	4.3	0	0	0	0	0	0
Nursing home	214	46.1	267	34.5	124	48.6	8	27.6	0	0	2	6.7
Other long term care	62	13.4	33	4.3	13	5.1	7	24.1	0	0	10	33.3
Rehabilitation	70	15.1	37	4.8	46	18	3	10.3	0	0	4	13.3
Subacute unit	14	3	28	3.6	24	9.4	0	0	0	0	0	0
Transitional care unit	6	1.3	18	2.3	7	2.7	0	0	0	0	0	0
Physician/dentist's office	39	8.4	8	1	3	1.2	2	6.7	0	0	0	0
Occupational health	1	0.2	0	0	1	0.4	0	0	0	0	0	0
Outpatient clinic	18	3.9	11	1.4	2	0.8	0	0	0	0	0	0
Home health	50	10.8	11	1.4	29	11.4	0	0	0	0	3	10
Public health	8	1.7	8	1	2	0.8	0	0	0	0	0	0
Student/school health	10	2.2	21	2.7	1	0.4	0	0	0	0	0	0
Hospice care	22	4.7	14	1.8	17	6.7	0	0	0	0	0	0
Prison/correctional facility/jail	8	1.7	6	0.8	1	0.4	1	3.4	0	0	0	0
Other*	36	7.8	146	18.9	23	9	3	10.3	29	100	6	20

*Other included responders and non-responders answering academic settings and specialties which were not listed on the survey.

Table J.2. Importance Ratings for Knowledge Statements

Knowledge Statement	Responder Rating	Nonresponder Rating
1. Basic cardiac rhythms	3.79 (N = 1471)	4.22 (N = 90)
2. Central venous catheter maintenance	3.45 (N = 1464)	4.08 (N = 90)
3. Conflict resolution	4.00 (N = 1473)	4.36 (N = 90)
4. Gastrointestinal tube feeding administration procedure	4.25 (N = 1464)	4.50 (N = 90)
5. Legal scope of practice	4.63 (N = 1462)	4.81 (N = 90)
6. Orthosis (e.g., traction, splint, brace)	3.73 (N = 1464)	3.91 (N = 90)
7. Postmortem care	3.72 (N = 1463)	4.03 (N = 90)
8. Quality improvement (QI)	3.80 (N = 1467)	4.26 (N = 90)
9. Stages of growth and development	3.82 (N = 1474)	4.08 (N = 90)
10. Time-out procedure	3.61 (N = 1466)	4.16 (N = 89)

APPENDIX K: LINKING OF KNOWLEDGE STATEMENTS AND ACTIVITY STATEMENTS

Appendix K was developed by the SMEs and does not reflect the final knowledge statements and categorizations.

Linking of Knowledge Statements and Activity Statements
1. Coordinated Care
Apply evidence-based practice when providing care
age specific requirements for care
evidence-based practice
standards of care
Practice in a manner consistent with code of ethics for nurses
code of ethics
legal scope of practice
Provide care within the legal scope of practice
legal scope of practice
personal/professional limitations
Maintain client confidentiality
HIPAA
clients rights and responsibilities
Organize and prioritize care for assigned group of clients
client status and condition
disease processes
legal scope of practice
prioritization of client care based on their conditions
supervisory skills
Assign client care and/or related tasks (e.g., assistive personnel or LPN/VN)
assignment/delegation
legal scope of practice
prioritization of client care based on their conditions
skills and capabilities of assistive personnel
supervisory skills
Monitor activities of assistive personnel
chain of command
legal scope of practice
skills and capabilities of assistive personnel
supervisory skills
Participate in client data collection and referral
anatomy and physiology principles
client history
client medical records
documentation
interdisciplinary providers
referral process
stages of growth and development

Linking of Knowledge Statements and Activity Statements	
Use data from various sources in making clinical decisions	
client data sources	
client physical observations	
disease processes	
objective data collection	
Contribute to the development and/or update of the client plan of care (e.g., client preferences, review current information)	
advance directives	
client plan of care	
client preferences (e.g., religious, spiritual, cultural, health choices)	
client status and condition	
goal-driven interventions for plan of care	
Receive health care provider orders	
acceptable abbreviations	
client history	
client safety	
legal scope of practice	
order from the health care provider	
Process health care provider orders	
acceptable abbreviations	
client safety	
documentation	
order from the health care provider	
supervisory skills	
Provide and receive report	
continuity of care	
reporting process	
Advocate for client rights and needs	
availability of resources (e.g., community, referral, interdisciplinary team)	
client advocacy	
client preferences (e.g., religious, spiritual, cultural, health choices)	
client rights and responsibilities	
communication barriers	
Provide for privacy needs	
HIPAA	
client dignity	
client preferences (e.g., religious, spiritual, cultural, health choices)	
client privacy	
client rights and responsibilities	
Promote client self-advocacy	
client education	
client preferences (e.g., religious, spiritual, cultural, health choices)	
client rights and responsibilities	
self-advocacy	

Linking of Knowledge Statements and Activity Statements
Involve client in care decision making
advance directives
client rights and responsibilities
client-centered care
communication barriers
disease processes
Participate in client consent process
HIPAA
informed consent
Provide information about advance directives
advance directives
availability of resources (e.g., community, referral, interdisciplinary team)
client education
client preferences (e.g., religious, spiritual, cultural, health choices)
client rights and responsibilities
Participate in providing cost effective care
availability of resources (e.g., community, referral, interdisciplinary team)
cost effective care
Use information technology in client care
HIPAA
information technology
Participate as a member of an interdisciplinary team
availability of resources (e.g., community, referral, interdisciplinary team)
client needs
HIPAA
staff roles and responsibilities
Recognize and report staff conflict
chain of command
conflict resolution
professional code of conduct
supervisory skills
workplace violence
Recognize task/assignment you are not prepared to perform and seek assistance
availability of resources (e.g., community, referral, interdisciplinary team)
chain of command
client safety
legal scope of practice
personal/professional limitations
Respond to the unsafe practice of a health care provider (e.g., intervene or report)
anatomy and physiology principles
chain of command
client safety
code of ethics
documentation

Linking of Knowledge Statements and Activity Statements	
evidence-based practice	
incident reporting	
legal scope of practice	
professional code of conduct	
Follow regulation/policy for reporting specific issues (e.g., abuse, neglect, gunshot wound or communicable disease)	
availability of resources (e.g., community, referral, interdisciplinary team)	
chain of command	
client status and condition	
code of ethics	
documentation	
legal scope of practice	
mandatory reporting guidelines	
Participate in client discharge or transfer	
availability of resources (e.g., community, referral, interdisciplinary team)	
client education	
client safety	
coordination of care	
discharge process	
medication reconciliation	
reporting process	
transfer process	
Follow up with client after discharge	
availability of resources (e.g., community, referral, interdisciplinary team)	
discharge process	
Participate in staff education (e.g., in-services and continued competency)	
collaboration	
continuing education	
evidence-based practice	
legal scope of practice	
licensure requirements	
professional development	
Participate in quality improvement (QI) activity (e.g., collecting data or serving on QI committee)	
chain of command	
data collection	
HIPAA	
quality improvement (QI)	
2. Safety and Infection Control	
Verify the identity of client	
client identification process	
HIPAA	
Identify allergies and intervene as appropriate	
allergies	
client history	
emergency procedures	

Linking of Knowledge Statements and Activity Statements
medication names (e.g., generic versus trade names)
medication reconciliation
signs and symptoms of allergic reaction
Evaluate the appropriateness of health care provider order for client
chain of command
client history
client safety
legal scope of practice
order from the health care provider
Acknowledge and document practice error (e.g., incident report)
chain of command
client safety
code of ethics
evidence-based practice
incident reporting
legal scope of practice
standards of care
Assist in or reinforce education to client about safety precautions
availability of resources (e.g., community, referral, interdisciplinary team)
client education
client safety
documentation
education techniques (e.g., return demonstrations, pamphlet, instruction)
Use safe client handling (e.g., body mechanics)
anatomy and physiology principles
body mechanics
client education
equipment usage
staff education
techniques of client handling
Use transfer assistive devices (e.g., gait/transfer belt, slide board or mechanical lift)
anatomy and physiology principles
body mechanics
client education
client safety
equipment usage
staff education
staff safety
techniques of client handling
Assure availability and safe functioning of client care equipment
equipment safety check
equipment usage
staff education

Linking of Knowledge Statements and Activity Statements
Implement least restrictive restraints or seclusion protocols
client history
documentation
least restrictive environment
legal scope of practice
order from the health care provider
restraints
seclusion protocols
Follow protocol for client monitoring (e.g., restraint, safety checks)
client education
client history
client monitoring
client safety
documentation
legal scope of practice
order from the health care provider
staff education
staff safety
Initiate and participate in security alert (e.g., infant abduction or flight risk)
chain of command
client education
client safety
documentation
emergency procedures
incident reporting
security alert
staff education
Identify and address hazardous conditions in health care environment (e.g., chemical, smoking or biohazard)
chain of command
client education
client safety
emergency procedures
hazardous conditions
incident reporting
material safety data sheets (MSDS)
staff education
Participate in preparation for internal and external disasters (e.g., fire or natural disaster)
chain of command
client education
client safety
code of ethics
emergency procedures
hazardous conditions
incident reporting

Linking of Knowledge Statements and Activity Statements	
	staff education
	staff roles and responsibilities
Use standard/universal precautions	
	client education
	infection control
	staff education
	standard/universal precautions
	standards of care
Use aseptic and sterile techniques	
	aseptic and sterile techniques
	client education
	documentation
	infection control
	staff education
Identify the need for and implement appropriate isolation techniques	
	client education
	client history
	documentation
	infection control
	isolation protocols
	psychosocial implications of isolation
	staff education
3. Health Promotion and Maintenance	
Assist with fetal heart monitoring for the antepartum client	
	client education
	documentation
	equipment usage
	fetal heart monitoring
	legal scope of practice
	staff education
Assist with monitoring a client in labor	
	abnormal findings
	client education
	client history
	client monitoring
	complications of labor
	documentation
	fetal heart monitoring
	medication administration
	staff education
Monitor recovery of stable postpartum client	
	client education
	documentation
	postpartum care
	staff education

Linking of Knowledge Statements and Activity Statements
Provide care that meets the needs of the newborn - less than 1 month old
availability of resources (e.g., community, referral, interdisciplinary team)
client education
clients with special needs (e.g., newborn complications, developmental delays, Down syndrome)
data collection
immunizations
newborn care
staff education
Provide care that meets the needs of infants or children aged 1 month to 12 years
availability of resources (e.g., community, referral, interdisciplinary team)
client education
client safety
clients with special needs (e.g., newborn complications, developmental delays, Down syndrome)
immunizations
staff education
stages of growth and development
Provide care that meets the needs of adolescents aged 13 to 18 years
availability of resources (e.g., community, referral, interdisciplinary team)
high risk behaviors
immunizations
psychosocial needs
staff education
stages of growth and development
Provide care that meets the needs of young adults aged 19 to 30 years
availability of resources (e.g., community, referral, interdisciplinary team)
high risk behaviors
psychosocial needs
stages of growth and development
Provide care that meets the needs of adults aged 31 to 64 years
availability of resources (e.g., community, referral, interdisciplinary team)
high risk behaviors
psychosocial needs
stages of growth and development
Provide care that meets the needs of adults aged 65 to 85 years of age
advance directives
availability of resources (e.g., community, referral, interdisciplinary team)
client history
high risk behaviors
psychosocial needs
stages of growth and development
Provide care that meets the needs of adults aged greater than 85 years of age
advance directives
availability of resources (e.g., community, referral, interdisciplinary team)
client history

Linking of Knowledge Statements and Activity Statements	
	psychosocial needs
	stages of growth and development
Compare client development to norms	
	client education
	client history
	data collection
	documentation
	staff education
	stages of growth and development
Assist client with expected life transition (e.g., attachment to newborn, parenting or retirement)	
	availability of resources (e.g., community, referral, interdisciplinary team)
	client education
	data collection
	documentation
	psychosocial needs
	staff education
	stages of growth and development
Provide care and resources for beginning of life and/or end of life issues and choices	
	advance directives
	availability of resources (e.g., community, referral, interdisciplinary team)
	client education
	client history
	client preferences (e.g., religious, spiritual, cultural, health choices)
	data collection
	documentation
	staff education
Collect data for health history	
	client history
	continuity of care
	data collection
	documentation
Collect baseline physical data (e.g., skin integrity, or height and weight)	
	anatomy and physiology principles
	documentation
	objective data collection
	staff education
Recognize barriers to communication or learning	
	client education
	client preferences (e.g., religious, spiritual, cultural, health choices)
	communication barriers
	communication techniques
	impairments (e.g., chemical, physical, emotional)
	psychological barriers

Linking of Knowledge Statements and Activity Statements
Participate in health screening or health promotion programs
availability of resources (e.g., community, referral, interdisciplinary team)
healthcare access
preventative health care
recommended health screening
Provide information for prevention of high risk behaviors or lifestyle choices
availability of resources (e.g., community, referral, interdisciplinary team)
high risk behaviors
Identify clients in need of immunizations (required and voluntary)
client education
client preferences (e.g., religious, spiritual, cultural, health choices)
immunizations
4. Psychosocial Integrity
Use communication techniques with client
communication techniques
Provide emotional support to client and family
availability of resources (e.g., community, referral, interdisciplinary team)
client preferences (e.g., religious, spiritual, cultural, health choices)
emotional support to client
Promote positive self-esteem of client
client history
emotional support to client
Assist in or reinforce education to caregivers/family on ways to manage client with behavioral disorders
availability of resources (e.g., community, referral, interdisciplinary team)
behavioral disorders
behavioral management
client education
client history
client safety
Assist client to cope/adapt to stressful events and changes in health status (e.g., abuse/neglect, end of life, grief and loss, life changes or physical changes)
advance directives
availability of resources (e.g., community, referral, interdisciplinary team)
client education
client preferences (e.g., religious, spiritual, cultural, health choices)
coping mechanisms
disease processes
stages of grieving
Participate in behavior management program by recognizing client stressors (e.g., lifestyle, body changes, environmental) and/or providing a therapeutic environment
availability of resources (e.g., community, referral, interdisciplinary team)
behavioral management
client preferences (e.g., religious, spiritual, cultural, health choices)
client safety
client stressors (e.g., lifestyle, body changes, environmental)

Linking of Knowledge Statements and Activity Statements
de-escalation techniques
medication administration
staff safety
therapeutic environment
Identify stressors that may affect recovery/health maintenance (e.g., lifestyle, body changes, environmental)
availability of resources (e.g., community, referral, interdisciplinary team)
client history
client stressors (e.g., lifestyle, body changes, environmental)
disease processes
psychosocial needs
Identify client use of effective and ineffective coping mechanisms
client history
client safety
coping mechanisms
Explore why client is refusing or not following treatment plan
availability of resources (e.g., community, referral, interdisciplinary team)
client abilities and limitations
client plan of care
client preferences (e.g., religious, spiritual, cultural, health choices)
data collection
disease processes
Collect data regarding client psychosocial needs
data collection
documentation
psychosocial needs
Collect data on client's potential for violence to self and others
availability of resources (e.g., community, referral, interdisciplinary team)
client history
client safety
staff safety
workplace violence
Identify signs and symptoms of substance abuse/substance abuse, withdrawal or toxicity
availability of resources (e.g., community, referral, interdisciplinary team)
chemical toxicity
client education
client safety
staff safety
substance abuse
substance abuse withdrawal
Assist in the care of the cognitively impaired client
behavioral management
client abilities and limitations
client history
client safety

Linking of Knowledge Statements and Activity Statements	
	communication techniques
	staff safety
Assist in the care of a client experiencing sensory/perceptual alterations	
	adaptive equipment
	client history
	client safety
	communication techniques
	medication administration
	sensory/perceptual alterations
Assist in managing the care of angry/agitated client (e.g., de-escalation techniques)	
	availability of resources (e.g., community, referral, interdisciplinary team)
	client history
	client safety
	de-escalation techniques
	emergency procedures
	least restrictive environment
	medication administration
	restraints
	staff safety
Make adjustment to care with consideration of client spiritual or cultural beliefs	
	client plan of care
	client preferences (e.g., religious, spiritual, cultural, health choices)
Participate in reminiscence therapy, validation therapy or reality orientation	
	client history
	reality orientation
	reminiscence therapy
	validation therapy
Participate in client group session	
	client history
	client needs
	code of ethics
	communication techniques
	de-escalation techniques
	group session participation
	HIPAA
	professional code of conduct
5. Basic Care and Comfort	
Monitor and provide for nutritional needs of client	
	allergies
	client preferences (e.g., religious, spiritual, cultural, health choices)
	client status and condition
	dietary restrictions
	medication compatibilities (e.g., prescription, non-prescription)
	nutritional needs
	order from the health care provider

Linking of Knowledge Statements and Activity Statements

Provide feeding and/or care for client with enteral tubes

advance directives

client safety

enteral tube feeding procedures

enteral tubes

nutritional formulas

nutritional needs

order from the health care provider

Institute bowel or bladder management

bladder and bowel training procedures

client education

client status and condition

data collection

documentation

medication administration

staff education

types of incontinence

Monitor client intake/output

basic mathematics

client education

data collection

documentation

equipment usage

order from the health care provider

staff education

Provide measures to promote sleep/rest

availability of resources (e.g., community, referral, interdisciplinary team)

client education

client status and condition

medication administration

non-pharmacological sleep interventions

order from the health care provider

psychosocial needs

staff education

Assist with activities of daily living

activities of daily living (ADLs)

adaptive equipment

availability of resources (e.g., community, referral, interdisciplinary team)

client education

client safety

client status and condition

prior level of ADL functioning

staff education

staff safety

Linking of Knowledge Statements and Activity Statements

Provide for mobility needs (e.g., ambulation, range of motion, transfer to chair, repositioning or the use of adaptive equipment)

adaptive equipment

body mechanics

client abilities and limitations

client education

client plan of care

client safety

client status and condition

documentation

goal-driven interventions for plan of care

medication administration

mobility techniques

range of motion

staff education

staff safety

transfer techniques

Provide care to an immobilized client (e.g., traction, splint or brace)

client circulatory status

client education

client plan of care

documentation

goal-driven interventions for plan of care

immobility related complications

orthosis (e.g., traction, splint, brace)

psychosocial needs

skin care

skin integrity

staff education

Assist in the care and comfort for a client with a visual and/or hearing impairment

adaptive equipment

availability of resources (e.g., community, referral, interdisciplinary team)

client education

psychosocial needs

sensory/perceptual alterations

staff education

Perform an irrigation of urinary catheter, bladder, wound, ear, nose or eye

anatomy and physiology principles

aseptic and sterile techniques

client education

client safety

documentation

infection control

irrigation procedures

order from the health care provider

staff education

Linking of Knowledge Statements and Activity Statements

Assist in providing postmortem care

client preferences (e.g., religious, spiritual, cultural, health choices)

code of ethics

postmortem care

professional code of conduct

Use measures to maintain or improve client skin integrity

client abilities and limitations

client education

client plan of care

client positioning

client status and condition

disease processes

documentation

goal-driven interventions for plan of care

infection control

medication administration

nutritional needs

skin care

skin integrity

staff education

types of incontinence

wound care

Use alternative/complementary therapy in providing client care (e.g., music therapy)

alternative/complementary therapies

client education

client preferences (e.g., religious, spiritual, cultural, health choices)

order from the health care provider

staff education

Provide non-pharmacological interventions for pain relief (e.g., imagery, massage or repositioning)

client education

client preferences (e.g., religious, spiritual, cultural, health choices)

client status and condition

disease processes

non-pharmacological interventions for pain relief

order from the health care provider

staff education

Evaluate pain using a rating scale

client education

client plan of care

client status and condition

code of ethics

documentation

goal-driven interventions for plan of care

nonverbal indicators of pain

Linking of Knowledge Statements and Activity Statements
pain rating scales
staff education
types of pain
6. Pharmacological Therapies
Reconcile and maintain medication list or medication administration record (e.g., prescribed medication administration, herbal supplements, over-the-counter medication administration)
acceptable abbreviations
allergies
client safety
data collection
documentation
measurement conversions
medication administration
medication compatibilities (e.g., prescription, non-prescription)
medication reconciliation
order from the health care provider
staff education
Maintain medication safety practices (e.g., storage, checking for expiration dates or compatibility)
client safety
code of ethics
medication compatibilities (e.g., prescription, non-prescription)
medication rights
medication safety
medication storage practice
staff education
Reinforce education to client regarding medication administration
client abilities and limitations
client education
client plan of care
dietary restrictions
disease processes
goal-driven interventions for plan of care
medication administration
medication classifications
medication indications
medication side effects
medication/dietary interaction
staff education
Perform calculations needed for medication administration
client safety
dosage calculation
measurement conversions
medication rights

Linking of Knowledge Statements and Activity Statements

Collect required data prior to medication administration

allergies

client history

client safety

client status and condition

data collection

disease processes

laboratory values

medication administration protocols (e.g., heart rate, blood glucose, blood pressure)

medication rights

order from the health care provider

Follow the rights of medication administration

client safety

medication rights

staff education

Administer medication by oral route

client safety

client status and condition

medication administration

medication preparation

medication rights

order from the health care provider

Administer medication by gastrointestinal tube (e.g., g-tube, nasogastric (NG) tube, g-button or j-tube)

client education

client safety

client status and condition

gastrointestinal tube feeding administration procedure

medication administration

medication rights

order from the health care provider

staff education

Administer a subcutaneous, intradermal or intramuscular medication

anatomy and physiology principles

client education

client safety

client status and condition

documentation

medication administration

medication administration devices (e.g., syringes, needles)

medication rights

order from the health care provider

staff education

Linking of Knowledge Statements and Activity Statements

Administer medication by ear, eye, nose, inhalation, rectum, vagina or skin route

anatomy and physiology principles

client education

client positioning

client safety

client status and condition

documentation

infection control

medication administration

medication rights

order from the health care provider

staff education

Administer intravenous piggyback (secondary) medications

allergies

anatomy and physiology principles

client education

client safety

client status and condition

documentation

dosage calculation

infection control

intravenous piggyback (secondary) medications

measurement conversions

medication administration

medication compatibilities (e.g., prescription, non-prescription)

medication rights

order from the health care provider

staff education

Calculate and monitor intravenous (IV) flow rate

anatomy and physiology principles

client education

client safety

client status and condition

documentation

dosage calculation

infection control

intravenous equipment

measurement conversions

medication administration

medication rights

order from the health care provider

staff education

Linking of Knowledge Statements and Activity Statements

Monitor transfusion of blood product

anatomy and physiology principles

blood product administration

client education

client preferences (e.g., religious, spiritual, cultural, health choices)

client safety

client status and condition

documentation

emergency procedures

infection control

medication rights

order from the health care provider

staff education

Maintain pain control devices (e.g., epidural, patient control analgesia, peripheral nerve catheter)

anatomy and physiology principles

client education

client plan of care

client preferences (e.g., religious, spiritual, cultural, health choices)

client safety

client status and condition

documentation

goal-driven interventions for plan of care

infection control

legal scope of practice

medication administration

medication rights

order from the health care provider

staff education

Administer pharmacological pain medication

client education

client plan of care

client safety

client status and condition

code of ethics

documentation

goal-driven interventions for plan of care

legal scope of practice

medication administration

medication rights

non-pharmacological interventions for pain relief

nonverbal indicators of pain

order from the health care provider

pain rating scales

staff education

Linking of Knowledge Statements and Activity Statements

Evaluate client response to medication (e.g., adverse reactions, interactions, therapeutic effects)

allergies

client education

client safety

client status and condition

documentation

medication adverse reactions

medication compatibilities (e.g., prescription, non-prescription)

medication side effects

medication therapeutic effects

nonverbal indicators of pain

order from the health care provider

pain rating scales

staff education

Count narcotics/controlled substances

code of ethics

documentation

legal scope of practice

medication safety

staff education

7. Reduction of Risk Potential

Perform risk monitoring and implement interventions

client plan of care

client safety

client status and condition

goal-driven interventions for plan of care

high risk behaviors

order from the health care provider

potential client risks

Implement measures to prevent complication of client status and condition or procedure (e.g., circulatory complication, seizure, aspiration or potential neurological disorder)

anatomy and physiology principles

client history

client plan of care

client safety

client status and condition

disease processes

documentation

goal-driven interventions for plan of care

high risk behaviors

nursing interventions

order from the health care provider

potential client risks

signs and symptoms of impending complications

staff education

Linking of Knowledge Statements and Activity Statements

Identify signs or symptoms of potential prenatal complication

chain of command

client education

client history

documentation

equipment usage

legal scope of practice

nursing interventions

prenatal complication

signs and symptoms of impending complications

staff education

stages of labor

stages of pregnancy

Check and monitor client vital signs

client education

client history

client status and condition

data collection

documentation

equipment usage

order from the health care provider

staff education

vital signs

Evaluate client oxygen (O₂) saturation

anatomy and physiology principles

client education

client history

client status and condition

data collection

documentation

equipment usage

order from the health care provider

oxygen saturation

staff education

Perform neurological checks

anatomy and physiology principles

client education

client history

client neurological status

documentation

neurological status data collection

order from the health care provider

staff education

Linking of Knowledge Statements and Activity Statements

Perform circulatory checks

anatomy and physiology principles

circulatory status data collection

client circulatory status

client education

client history

documentation

order from the health care provider

staff education

Check for urinary retention (e.g., ultrasound or palpation)

anatomy and physiology principles

client education

client history

client status and condition

data collection

documentation

equipment usage

order from the health care provider

staff education

urinary retention

Insert urinary catheter

anatomy and physiology principles

aseptic and sterile techniques

client education

client history

client preferences (e.g., religious, spiritual, cultural, health choices)

client status and condition

documentation

infection control

order from the health care provider

urinary catheter insertion techniques

Maintain urinary catheter

anatomy and physiology principles

aseptic and sterile techniques

client education

client history

client status and condition

documentation

infection control

order from the health care provider

urinary catheter maintenance

Linking of Knowledge Statements and Activity Statements

Remove urinary catheter

anatomy and physiology principles

aseptic and sterile techniques

client education

documentation

infection control

order from the health care provider

staff education

urinary catheter removal techniques

Collect specimen for diagnostic testing (e.g., blood, urine, stool or sputum)

client education

infection control

legal scope of practice

order from the health care provider

specimen collection procedure

staff education

Monitor diagnostic or laboratory test results

chain of command

client education

client status and condition

data collection

diagnostic testing

disease processes

documentation

medication administration

staff education

Assist with the performance of a diagnostic testing (e.g., call a time-out, bronchoscopy, needle biopsy)

aseptic and sterile techniques

client education

client identification process

diagnostic testing

documentation

infection control

informed consent

legal scope of practice

staff education

time-out procedure

Provide care for client before surgical procedure including reinforcing teaching

anatomy and physiology principles

client abilities and limitations

client education

client identification process

client preferences (e.g., religious, spiritual, cultural, health choices)

communication barriers

Linking of Knowledge Statements and Activity Statements

informed consent
order from the health care provider
staff education
surgical procedure
Monitor continuous or intermittent suction of nasogastric (NG) tube
anatomy and physiology principles
client education
client status and condition
documentation
equipment usage
infection control
informed consent
intake/output procedures
nasogastric (NG) tube suctioning
order from the health care provider
staff education
Insert nasogastric (NG) tube
anatomy and physiology principles
client education
client status and condition
documentation
equipment usage
infection control
informed consent
intake/output procedures
nasogastric (NG) tube insertion
order from the health care provider
staff education
Maintain nasogastric (NG) tube
anatomy and physiology principles
client education
client status and condition
documentation
equipment usage
infection control
intake/output procedures
nasogastric (NG) tube maintenance
order from the health care provider
staff education
Remove nasogastric (NG) tube
anatomy and physiology principles
client education
client status and condition
documentation

Linking of Knowledge Statements and Activity Statements
equipment usage
infection control
nasogastric (NG) tube removal
order from the health care provider
staff education
Administer and check proper use of compression stockings/sequential compression devices (SCD)
client circulatory status
client education
client status and condition
compression stockings/sequential compression devices (SCD)
disease processes
documentation
equipment usage
order from the health care provider
skin integrity
staff education
Perform an electrocardiogram (EKG/ECG)
anatomy and physiology principles
client education
client history
client status and condition
disease processes
electrocardiogram (EKG/ECG)
equipment usage
order from the health care provider
staff education
Perform blood glucose monitoring
anatomy and physiology principles
blood glucose monitoring
client education
client history
client identification process
client status and condition
disease processes
documentation
equipment usage
infection control
laboratory values
order from the health care provider
staff education
Perform venipuncture for blood draws
anatomy and physiology principles
client education
client history

Linking of Knowledge Statements and Activity Statements
client identification process
client safety
client status and condition
disease processes
equipment usage
infection control
order from the health care provider
staff education
staff safety
venipuncture for blood draws
Draw blood from central venous catheter
anatomy and physiology principles
central venous catheter blood draw
client education
client history
client identification process
client safety
client status and condition
disease processes
equipment usage
infection control
legal scope of practice
order from the health care provider
staff education
staff safety
Maintain central venous catheter
anatomy and physiology principles
central venous catheter maintenance
client education
client history
client identification process
client safety
client status and condition
disease processes
equipment usage
infection control
legal scope of practice
order from the health care provider
staff education
staff safety
Insert peripheral intravenous (IV) catheter
anatomy and physiology principles
client education
client history

Linking of Knowledge Statements and Activity Statements

client identification process
client safety
client status and condition
disease processes
documentation
equipment usage
infection control
legal scope of practice
order from the health care provider
peripheral intravenous (IV) catheter insertion
staff education
staff safety
Maintain peripheral intravenous (IV) catheter
anatomy and physiology principles
client education
client history
client identification process
client safety
client status and condition
disease processes
documentation
equipment usage
infection control
legal scope of practice
order from the health care provider
peripheral intravenous (IV) catheter maintenance
signs and symptoms of impending complications
staff education
staff safety
Remove peripheral intravenous (IV) catheter
anatomy and physiology principles
client education
client identification process
client safety
client status and condition
disease processes
documentation
equipment usage
infection control
legal scope of practice
order from the health care provider
peripheral intravenous (IV) catheter removal
staff education
staff safety

Linking of Knowledge Statements and Activity Statements

8. Physiological Adaptation

Identify signs and symptoms related to an acute or chronic illness

anatomy and physiology principles

client education

client history

disease processes

signs and symptoms of acute illness

signs and symptoms of chronic illness

staff education

Recognize and report change in client status and condition

chain of command

client education

client history

client status and condition

disease processes

documentation

reporting process

signs and symptoms of impending complications

staff education

Reinforce education to client regarding care and condition

anatomy and physiology principles

availability of resources (e.g., community, referral, interdisciplinary team)

client abilities and limitations

client education

client status and condition

disease processes

documentation

signs and symptoms of impending complications

Perform care for client after surgical procedure

anatomy and physiology principles

client abilities and limitations

client education

client plan of care

client status and condition

disease processes

documentation

equipment usage

goal-driven interventions for plan of care

infection control

medication administration

order from the health care provider

signs and symptoms of impending complications

surgical procedure

Linking of Knowledge Statements and Activity Statements

Perform wound care and/or dressing change

anatomy and physiology principles

client education

documentation

infection control

legal scope of practice

medication administration

order from the health care provider

reporting process

signs and symptoms of impending complications

skin integrity

staff education

wound care

Provide care for client drainage device (e.g., wound drain or chest tube)

anatomy and physiology principles

aseptic and sterile techniques

client education

documentation

drainage devices

equipment usage

infection control

intake/output procedures

legal scope of practice

medication administration

order from the health care provider

reporting process

signs and symptoms of impending complications

skin integrity

staff education

wound care

Remove client wound drainage device

client education

client status and condition

documentation

drainage devices

infection control

legal scope of practice

nonverbal indicators of pain

order from the health care provider

pain rating scales

staff education

Linking of Knowledge Statements and Activity Statements
Remove wound sutures or staples
documentation
equipment usage
infection control
legal scope of practice
order from the health care provider
signs and symptoms of impending complications
staff education
suture or staple removal
Respond/intervene to a client life-threatening situation (e.g., cardiopulmonary resuscitation)
advance directives
basic life support (BLS)
client preferences (e.g., religious, spiritual, cultural, health choices)
code of ethics
data collection
documentation
emergency procedures
equipment usage
infection control
legal scope of practice
order from the health care provider
staff education
Intervene to improve client respiratory status (e.g., breathing treatment, suctioning or repositioning)
anatomy and physiology principles
client circulatory status
client education
client history
client status and condition
disease processes
equipment usage
infection control
medication administration
nursing interventions
order from the health care provider
respiratory status
signs and symptoms of impending complications
staff education
Recognize and report basic abnormalities on a client cardiac monitor strip
anatomy and physiology principles
basic cardiac rhythms
cardiac monitoring
client history
documentation
emergency procedures

Linking of Knowledge Statements and Activity Statements

equipment usage
legal scope of practice
reporting process
signs and symptoms of impending complications
staff education
Identify/intervene to control signs of hypoglycemia or hyperglycemia
client education
client status and condition
disease processes
documentation
equipment usage
laboratory values
medication administration
nursing interventions
reporting process
signs and symptoms of hyperglycemia
signs and symptoms of hypoglycemia
signs and symptoms of impending complications
Provide cooling/warming measures to restore normal temperature
client plan of care
disease processes
documentation
emergency procedures
equipment usage
goal-driven interventions for plan of care
medication administration
nursing interventions
reporting process
signs and symptoms of impending complications
staff education
temperature regulation interventions
vital signs
Provide care to client with an ostomy (e.g., colostomy, ileostomy or urostomy)
anatomy and physiology principles
client education
dietary restrictions
documentation
equipment usage
infection control
intake/output procedures
legal scope of practice
medication administration
nursing interventions
order from the health care provider

Linking of Knowledge Statements and Activity Statements

ostomy care
ostomy devices
psychosocial needs
reporting process
signs and symptoms of impending complications
skin integrity
staff education
Provide care for a client with a tracheostomy
anatomy and physiology principles
client education
dietary restrictions
documentation
emergency procedures
equipment usage
infection control
legal scope of practice
medication administration
nursing interventions
order from the health care provider
psychosocial needs
reporting process
signs and symptoms of impending complications
skin integrity
staff education
tracheostomy care
tracheostomy devices
Provide care to client on ventilator
anatomy and physiology principles
client education
diagnostic testing
dietary restrictions
documentation
emergency procedures
endotracheal devices
equipment usage
infection control
laboratory values
legal scope of practice
medication administration
nursing interventions
order from the health care provider
psychosocial needs
reporting process
signs and symptoms of impending complications

Linking of Knowledge Statements and Activity Statements

skin integrity
staff education
ventilators
Perform check of client pacemaker
anatomy and physiology principles
client education
documentation
emergency procedures
equipment usage
legal scope of practice
order from the health care provider
pacemaker devices
reporting process
signs and symptoms of impending complications
staff education



NCSBN

National Council of State Boards of Nursing

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www.ncsbn.org

ISBN# 978-0-9848518-5-0