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Report of Findings from the 2021 LPN/VN Nursing Knowledge Survey



Report of Findings from the 2021 LPN/VN Nursing Knowledge Survey

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

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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 its member board territories, for the preparation of psychometrically sound and legally defensible licensure examinations (American Educational Research Association, American Psychological Association and National Council on Measurement in Education, 2014). Practice analysis (i.e., job analysis) studies assist NCSBN in evaluating the validity of the test plan that guides content distribution of the licensure examinations. Because the U.S. health care industry is rapidly changing, NCSBN conducts practice analysis studies every three years.

The 2013-2014 NCSBN Strategic Practice Analysis highlighted the increasingly complex decisions newly licensed nurses make during the course of patient care. These increasingly complex decisions often require the use of clinical judgment to support patient safety. NCSBN has conducted several years of research and study to understand and isolate the individual factors that contribute to the process of nursing clinical judgment. When the concept of clinical judgment is explored relative to nursing, it is expected the individual contributing factors to clinical judgment will closely align with the performance of activities involved in the delivery of nursing care. In other words, those contributing factors align with nursing behavior and therefore remain an important underpinning in the nursing decision making process. As a result, NCSBN wanted to understand the relevance of clinical judgment in the performance of entry-level activities. The 2021 PN Practice Analysis includes survey questions to gather data to explore this subject. The results of the 2021 NCLEX-PN Practice Analysis assists in the development of the knowledge statements used for the PN KSA to inform item development. The following clinical judgment definition was provided to 2021 PN Practice Analysis survey responders:

- Clinical judgment is defined as the observed outcome of critical thinking and decision making. It

is an iterative process that uses nursing knowledge to observe and assess presenting situations, identify a prioritized client concern, and generate the best possible evidence-based solutions in order to deliver safe client care.

The primary purpose of this study is to identify the knowledge needed by newly licensed LPN/VNs. The results of this study will be used to inform item development.

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 2021 LPN/VN Nursing Knowledge Survey. A panel of subject matter experts (SMEs) was assembled; a list of knowledge statements was created and incorporated into a survey that was sent to a representative sample of newly licensed LPN/VNs, LPN/VN educators and LPN/VN supervisors; and the data were collected and analyzed. Descriptions of the SME panel processes, survey development, sample selection and data collection procedures are provided as well as information about the 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. This report provides detailed descriptions of these processes.

Methodology Reviewers

Three methodology reviewers have been chosen for their expertise in practice/job analysis and certification exam development as reviewers of the methodologies and procedures for NCSBN's previous practice analysis studies. All three reviewers have indicated in the past that this methodology was psychometrically sound, legally defensible and in compliance with industry standards for practice analyses. After a sound methodology has been validated and approved by an

external panel of SMEs in the area of psychometrics and practice analysis methodologies, that methodology will remain in effect until new procedures or methodologies are suggested. Should substantial changes to the methodology occur in future studies, NCSBN Examinations staff shall ensure that a thorough review of the methodology is undertaken by external SMEs.

Panel of Subject Matter Experts (SMEs)

A panel of six SMEs was assembled to assist with the creation of the knowledge statements and survey. Panel members taught LPN/VN students, supervised LPN/VNs or were themselves a newly licensed LPN/VN within the first 12 months of practice. The panelists also represented various NCSBN geographic areas of the U.S., as well as the major nursing specialties and varied practice settings.

Survey Development

A number of processes were used to create, evaluate and refine the survey instrument used for the 2021 LPN/VN Nursing Knowledge Survey. The initial meetings for the triennial practice analysis preceded the development of the 2021 LPN/VN Nursing Knowledge Survey. An initial panel of nurses (SMEs), representing various geographic regions of the U.S., nursing specialties and practice settings, developed nursing activity statements intended to represent entry-level LPN/VN practice. These activity statements and related categories provided a structure for the creation of the knowledge statements. Following the work of the first panel, a second group of SMEs convened with one panelist bridging the two groups.

This second panel reviewed the activity statements and then developed knowledge statements for each activity statement. The knowledge statements were reviewed by the NCLEX® Examination Committee (NEC). The resulting 280 knowledge statements were incorporated into a survey format.

The final version of the survey contained several initial questions to identify responder characteristics, followed

by four sections. The first section focused on the knowledge necessary for entry-level LPN/VN practice, asking responders to rate the importance of each knowledge statement by using a five-point (1-5) scale. The second section identified the participant's work environment including area of practice, type of client and employment setting/specialty. The third section focused on demographic information such as race/ethnicity, highest obtained education degree and gender. The final section provided space for responders to write comments or suggestions about the survey.

Survey Process

Sample Selection

Newly Licensed LPN/VNs: A random sample of 4,200 LPN/VNs was selected from a list of candidates who passed the NCLEX-PN® examination between April 15, 2020 and Feb. 15, 2021 and did not participate in the LPN/VN Practice Analysis Survey.

Educators of LPN/VNs (LPN/VN Educators): In addition, surveys were sent to 6,591 LPN/VN educators at 1,346 different nursing programs using the following methodology. Three surveys were emailed to each dean/director of 1,346 nursing programs, with instructions to forward one survey to: (1) a Medical/Surgical Nursing instructor, (2) an Obstetrics-Gynecology/Pediatric or Maternal Child Nursing instructor and (3) a Psychiatric (Mental Health) or Community Health Nursing instructor.

Supervisors of Newly Licensed LPN/VNs (LPN/VN Supervisors): Finally, 10,856 employers (4,000 in hospitals and 6,856 nonhospital health care settings) of newly licensed LPN/VNs were surveyed. Surveys were emailed to the directors of nursing (DONs) or an equivalent title at the 10,856 health care facilities mentioned previously.

Representativeness

Since multiple surveys were sent to LPN/VN educators of the same institution, all responders from an institution were counted as one in the representativeness

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

Emailing Procedure

The survey forms were emailed to a total of 21,647 potential responders: 4,200 newly licensed LPN/VNs, 6,591 LPN/VN educators and 10,856 potential supervisors of newly licensed LPN/VNs. To acquire the LPN/VN educator responders, three web surveys were emailed to the dean/director of the program to forward and distribute among their staff. 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 or Maternal Child Nursing and (3) Psychiatric (Mental Health) or Community Health Nursing. If the school did not have specialty faculty who could complete the survey, it was asked that additional faculty in the clinical setting who teach Medical/Surgical Nursing participate.

A five-stage emailing process was used to engage the participants in the study. A presurvey email was sent to each person or facility selected for the sample in April 2021. One week later, recipients were sent an email invitation with a login address and a unique access code. Two weeks later, a reminder email was sent to all participants reiterating the importance of the study and urging participation. Approximately two weeks after the first email, a second reminder was sent to nonresponders, and two weeks later, a third email was sent to remaining nonresponders. The survey was conducted from April through June 2021.

There were 9,450 surveys that were returned as undeliverable email addresses.

Confidentiality

All potential participants were promised confidentiality with regard to their participation and responses. Pre-assigned code numbers were used to facilitate follow-up emails. Files containing email information were kept separate from the data files. The study protocol

was approved by NCSBN's chief executive officer for compliance with organizational guidelines used in research studies involving human participants.

Return Rates

There were 4,200 newly licensed LPN/VNs invited to complete the survey, and of those, there were 4,111 surveys delivered. A total of 733 surveys were returned by this group for a return rate of 17.8%. There were 6,591 LPN/VN educators invited to complete the survey, and of those, there were 1,569 surveys delivered. A total of 834 surveys were returned by this group for a 53.2% return rate. There were 10,856 LPN/VN supervisors invited to complete the survey, and of those, there were 6,517 surveys delivered. A total of 944 surveys were returned by this group for a return rate of 14.5%. The total number of surveys delivered was 12,197, with an overall adjusted return rate of 20.6%. Of the 2,511 total surveys received, there were no invalid responses. The total number of analyzable surveys was 2,511 with an analyzable return rate of 20.6% for the overall group. The analyzable return rates were 17.8%, 53.2% and 14.5% for newly licensed LPN/VNs, LPN/VN educators and LPN/VN supervisors, respectively.

Knowledge Survey Nonresponder Survey

In order to ensure the validity of the results, NCSBN conducted a survey of nonresponders to determine if those LPN/VNs not responding would have rated the knowledge statements differently than the survey responders. If there were no systematic differences in responders versus nonresponders, it would be concluded that the results are not biased and it would provide evidence to support the validity of the survey results. A stratified random sample of nonresponders were contacted via email and telephone. The web survey or telephone interview was obtained from 62 participants: 39 newly licensed LPN/VNs, 16 LPN/VN educators, and 7 LPN/VN supervisors. The study found that the nonresponder knowledge statement ratings were very similar to the responder ratings; this similarity supports the validity of the results of this study.

Summary

A panel of LPN/VNs experienced in the practice of newly licensed LPN/VNs met and created a list of 280 knowledge statements that are important for a newly licensed LPN/VN to possess. A data collection instrument was developed. The surveyed LPN/VNs were divided into the following categories: 4,200 newly licensed LPN/VNs, 6,591 LPN/VN educators (obtained by deans/directors distributing three web surveys to 1,346 nursing programs) and 10,856 LPN/VN supervisors (obtained by sending a survey to 4,000 hospitals and 6,856 nonhospital health care settings). A 20.6% response rate of analyzable surveys was obtained for the total group. This analysis contains the responses of 733 newly licensed LPN/VNs, 834 LPN/VN educators and 944 LPN/VN supervisors.

Demographics, Experiences and Practice Environments of Participants

Demographics/Experiences

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

Nursing Licenses Held

Responders were asked what type of nursing license they held, with the option of choosing LPN/VN, RN and/or APRN licenses. There were 99.6% of newly licensed LPN/VNs that responded they held an LPN/VN license. There were 10.9% of LPN/VN educators and 16.4% of LPN/VN supervisors that held an LPN/VN license. The remainder of the responders held an RN license or an APRN license.

Gender

Of the total responders who indicated their gender on the survey, 90.1% reported their gender as female. The percentage of females by primary job title is as follows:

newly licensed LPN/VNs (89.6%), LPN/VN educators (91.7%) and LPN/VN supervisors (90.6%).

Age

Newly licensed LPN/VNs had an average age of 35.8 years (SD = 10.4); LPN/VN educators had an average age of 53.8 years (SD = 12.0); and LPN/VN supervisors had an average age of 53.6 years (SD = 11.1).

Race/Ethnicity

White – not of Hispanic origin was the race/ethnicity identified most frequently by newly licensed LPN/VNs (47.4%), LPN/VN educators (72.2%) and LPN/VN supervisors (78.1%).

Educational Background

The majority of newly licensed LPN/VNs (78.8%) reported having an LPN/VN diploma or certificate. Approximately 39.7% of LPN/VN educators listed their highest degree as an RN generic master's degree earned within the U.S. or an RN associate degree (28.8%). LPN/VN supervisors listed their highest degree as an RN associate degree (31.8%) or an RN diploma earned within the U.S. (22.2%).

Primary Language

The majority of newly licensed LPN/VNs (83.3%), LPN/VN educators (89.0%) and LPN/VN supervisors (92.1%) reported English as their primary language.

Years of Experience

There were large variations in months and years LPN/VN educators and LPN/VN supervisors reported working in their jobs. LPN/VN educators spent an average of 9.5 years in their jobs, which is less than LPN/VN supervisors, who spent an average of 17.2 years in their jobs. Newly licensed LPN/VNs were asked how long it had been since they completed course requirements for their nursing programs, and they reported an average of 0.6 years.

Facilities

Newly licensed LPN/VNs (48.0%) worked primarily in long-term care facilities. LPN/VN educators (54.2%) worked primarily in hospitals. LPN/VN supervisors worked most frequently in long-term care (32.8%) and hospitals (32.8%).

Client Health Conditions

Newly licensed LPN/VNs (30.4%) reported working with clients with stable chronic conditions the most. LPN/VN educators (43.6%) reported working the most with clients with stable chronic conditions. LPN/VN supervisors worked with clients the most at the end of life (29.1%), clients having stable chronic conditions (29.1%) and clients with behavioral/emotional conditions (29.1%).

Client Ages

Newly licensed LPN/VNs (32.5%) and LPN/VN supervisors (40.0%) reported that they cared for older adult clients aged 65–85. LPN/VN educators reported that they cared for both adult clients aged 18–64 (47.5%) and older adult clients aged 65–85 (42.6%).

Employment Setting/Specialty

The employment setting most frequently reported by newly licensed LPN/VNs (21.1%), LPN/VN educators (17.8%) and LPN/VN supervisors (20.0%) was long-term care (e.g., nursing home, skilled or intermediate care). On average for all job titles, the least reported employment settings were operating room, including outpatient surgery and surgicenters (0.6%), and labor and delivery (including postpartum unit) (1.1%).

Summary

The average newly licensed LPN/VN responder was an English-speaking white female with an average age of 35.8 years. She held an LPN/VN diploma/certificate and worked primarily in a long-term care facility caring for adult clients aged 65–85. She has been a newly licensed LPN/VN for under 1 year.

The average LPN/VN educator responder was an English-speaking white female with an average age of 53.8 years. She held an RN master's degree within the U.S. She worked primarily in a hospital caring for adult clients aged 18–64 with stable chronic health conditions. On average, she had been an LPN/VN educator for 9.5 years.

The average LPN/VN supervisor responder was an English-speaking white female with an average age of 53.6 years. She held an RN associate degree from a college/university within the U.S. She worked in long-term care facilities and hospitals caring for older clients aged 65–85 at end of life or with stable chronic or behavioral/emotional conditions. On average, she worked as an LPN/VN supervisor for 17.2 years.

Knowledge Statements

The 2021 Knowledge of Newly Licensed LPN/VN 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 for the 2021 Knowledge of Newly Licensed LPN/VN Survey was asked to provide independent ratings of the 280 knowledge statements. In order to validate the results of the survey, the average importance ratings estimated by the SMEs were compared to the ratings from the knowledge survey. There was consistency among both the highest and lowest importance knowledge statements across the ratings of the newly licensed LPN/VNs, LPN/VN educators, LPN/VN supervisors and SMEs. The importance ratings of SMEs compared to the ratings of each subgroup were similar. There was only one knowledge statement average rating that had more than a one-point difference between the SMEs and

newly licensed LPN/VNs: "client advocacy" (SME ratings averaged 3.33 and newly licensed LPN/VNs averaged 4.48). There were seven knowledge statement average ratings that had more than a one-point difference between the SMEs and the LPN/VN educators. Of those seven, the knowledge statement with the largest difference in importance ratings was "client advocacy" (SME ratings averaged 3.33 and LPN/VN educators averaged 4.55). Five knowledge statement average ratings had more than a one-point difference between the SMEs and LPN/VN supervisors. Of those five, the knowledge statement with the largest difference in importance ratings was "client in labor" (SME ratings averaged 4.17 and LPN/VN supervisor ratings averaged 2.82). This information on knowledge needed by newly licensed LPN/VNs from multiple sources provides a more accurate description than a single source.

Representativeness of Knowledge Statements

The responders were asked to rate how well the knowledge statements listed on the survey represented knowledge areas a newly licensed LPN/VN should possess. They were asked to select one of four options: "Poorly," "Adequately," "Well" or "Very Well." The vast majority of responders reported that the knowledge statements covered the knowledge areas of a newly licensed LPN/VN "Well" or "Very Well" (92.9% of newly licensed LPN/VNs, 98.7% of LPN/VN educators and 90.7% of LPN/VN supervisors).

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 knowledge needed for safe and effective practice of newly licensed LPN/VNs was determined by participants' responses based on an importance rating scale. 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 SME panel ratings and survey responder ratings of the 280 knowledge statements yielded similar results. All of the groups (newly licensed LPN/VNs, LPN/VN educators, LPN/VN supervisors and SMEs) rated "medication administration safety" among the five most 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 newly licensed LPN/VNs was "group session" with an average value of 3.24. LPN/VN educators rated "ear irrigation" as the least important knowledge statement with an average value of 2.42. LPN/VN supervisors rated "nose irrigation" the lowest with an average value of 2.58. The most important knowledge statements for newly licensed LPN/VNs were "client safety" and "medication," each with an average value of 4.81. LPN/VN educators rated "infection control" as the highest knowledge statement with an average value of 4.90. LPN/VN supervisors rated "cardiopulmonary resuscitation" the highest with

an average value of 4.95. 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 facilities, community-based facilities and other facilities were cross-analyzed for meaningful differences.

“Ear irrigation” was rated as the least important knowledge statement by responders from hospitals and community-based facilities (averages of 2.67 and 3.22, respectively). “Group session” was rated the least important knowledge statement by responders from long-term care (averages of 3.08). “Nose irrigation” was rated the least important knowledge statement by responders from hospitals and other facilities (averages of 2.67 and 2.92, respectively). The most important knowledge statement for responders working in hospitals was “medication administration safety” with an average rating of 4.90. For long-term care facilities the most important knowledge statement for responders was “client safety” with an average rating of 4.83. In community-based facilities the most important knowledge statement was “cardiopulmonary resuscitation” with an average rating of 4.88. In other facilities “adverse events,” with an average rating of 4.96, was the most important knowledge statement.

Summary

Responders to the 2021 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.

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 its member board territories, for the preparation of psychometrically sound and legally defensible licensure examinations (American Educational Research Association, American Psychological Association and National Council on Measurement in Education, 2014). Practice analysis (i.e., job analysis) studies assist NCSBN in evaluating the validity of the test plan that guides content distribution of the licensure examinations. Because the U.S. health care industry is rapidly changing, 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 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).

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 2021 LPN/VN Nursing Knowledge Survey. A panel of subject matter experts (SMEs) was assembled; a list of knowledge statements was created and incorporated into a survey that was sent to a representative sample of newly licensed LPN/VNs, LPN/VN educators and LPN/VN supervisors; and the data were collected and analyzed. Descriptions of the SME panel processes, survey development, and sample selection and data collection procedures are provided as well as information about the 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. This report provides detailed descriptions of these processes.

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Three methodology reviewers have been chosen for their expertise in practice/job analysis and certification exam development as reviewers of the methodologies and procedures for NCSBN's previous practice analysis studies. All three reviewers have indicated in the past that this methodology was psychometrically sound, legally defensible and in compliance with industry standards for practice analyses. After a sound methodology has been validated and approved by an external panel of SMEs in the area of psychometrics and practice analysis methodologies, that methodology will remain in effect until new procedures or methodologies are suggested. Should substantial changes to the methodology occur in future studies, NCSBN Examinations staff shall ensure that a thorough review of the methodology is undertaken by external SMEs.

Panel of Subject Matter Experts (SMEs)

A panel of six SMEs was assembled to assist with the creation of the knowledge statements and survey. Panel members taught LPN/VN students or supervised LPN/VNs; one panel member was a newly licensed LPN/VN within the first 12 months of practice. The panelists also represented various NCSBN geographic areas of the U.S., as well as the major nursing specialties and varied practice settings. See [Appendix A](#) for a listing of panel members.

Survey Development

A number of processes were used to create, evaluate and refine the survey instrument used for the 2021 LPN/VN Nursing Knowledge Survey. The initial meetings for the triennial practice analysis preceded the development of the 2021 LPN/VN Nursing Knowledge Survey. An initial panel of nurses (SMEs), representing various geographic regions of the U.S., nursing specialties and practice settings, developed nursing activity statements intended to represent entry-level LPN/VN practice. These activity statements and related

categories provided a structure for the creation of the knowledge statements. Following the work of the first panel, a second group of SMEs was convened with one panelist bridging the two groups.

This second panel reviewed the activity statements and then developed knowledge statements for each activity statement. The link between knowledge statements and activity statements can be seen in [Appendix J](#), which reflects the statements developed by the SME panelists during the meeting.

Subsequent to the panel meeting, knowledge statements were reviewed by the NCLEX® Examination Committee (NEC). The statements in [Appendix J](#) reflect the knowledge statements developed by the SMEs. The resulting 280 knowledge statements were incorporated into a survey format.

The final version of the survey contained several initial questions to identify responder characteristics, followed by four sections. The first section focused on the knowledge necessary for entry-level LPN/VN practice, asking responders to rate the importance of each of the 280 knowledge statements by using a five-point (1-5) scale. The second section identified the participant's work environment including area of practice, type of client and employment setting/specialty. The third section focused on demographic information such as race/ethnicity, highest obtained education degree and gender. The final section provided space for responders to write comments or suggestions about the survey. The survey used in the 2021 LPN/VN Nursing Knowledge Survey is shown in [Appendix B](#).

Survey Process

Sample Selection

Newly Licensed LPN/VNs: A random sample of 4,200 LPN/VNs was selected from a list of candidates who passed the NCLEX-PN® examination between April 15, 2020 and Feb. 15, 2021 and did not participate in the LPN/VN Practice Analysis Survey.

Educators of LPN/VNs (LPN/VN Educators): In addition, surveys were sent to 6,591 LPN/VN educators at 1,346 different nursing programs using the following methodology. Three surveys were emailed to each dean/director of 1,346 nursing programs, with instructions for them to forward one survey to (1) a Medical/Surgical Nursing instructor, (2) an Obstetrics-Gynecology/Pediatric or Maternal Child Nursing instructor and (3) a Psychiatric (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, 10,856 employers (4,000 in hospitals and 6,856 in nonhospital health care settings) of newly licensed LPN/VNs were surveyed. Surveys were emailed to the directors of nursing (DONs) or an equivalent title at the 10,856 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 supervise newly licensed LPN/VNs.

Representativeness

Table 1 presents the correspondence of sample size and responders within each primary job title (newly licensed LPN/VN, LPN/VN educator and LPN/VN supervisor) by NCSBN jurisdiction. Because multiple surveys were emailed 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.

Emailing Procedure

The survey forms were emailed to a total of 21,647 potential responders: 4,200 newly licensed LPN/VNs, 6,591 LPN/VN educators and 10,856 potential supervisors of newly licensed LPN/VNs.

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	92	2.2	18	2.5	132	2.0	0	0.0	145	1.3	1	0.9
Alaska	0	0.0	0	0.0	18	0.3	0	0.0	14	0.1	0	0.0
American Samoa	1	0.0	0	0.0	3	0.0	0	0.0	0	0.0	0	0.0
Arizona	42	1.0	6	0.8	96	1.5	4	4.0	193	1.8	2	1.8
Arkansas	91	2.2	13	1.8	84	1.3	2	2.0	131	1.2	0	0.0
California	580	13.8	99	13.5	420	6.4	18	17.8	785	7.2	3	2.7
Colorado	35	0.8	4	0.5	108	1.6	0	0.0	175	1.6	3	2.7
Connecticut	37	0.9	11	1.5	84	1.3	0	0.0	170	1.6	2	1.8
Delaware	18	0.4	4	0.5	21	0.3	0	0.0	36	0.3	0	0.0
District of Columbia	1	0.0	0	0.0	18	0.3	0	0.0	23	0.2	0	0.0
Florida	237	5.6	33	4.5	669	10.2	19	18.8	678	6.2	3	2.7
Georgia	67	1.6	10	1.4	111	1.7	0	0.0	321	3.0	2	1.8
Guam	1	0.0	1	0.1	6	0.1	0	0.0	0	0.0	0	0.0
Hawaii	12	0.3	2	0.3	30	0.5	0	0.0	26	0.2	2	1.8
Idaho	13	0.3	1	0.1	33	0.5	0	0.0	60	0.6	0	0.0
Illinois	119	2.8	23	3.1	255	3.9	2	2.0	605	5.6	6	5.5
Indiana	48	1.1	12	1.6	150	2.3	0	0.0	263	2.4	2	1.8
Iowa	69	1.6	13	1.8	99	1.5	0	0.0	214	2.0	0	0.0
Kansas	67	1.6	18	2.5	135	2.0	0	0.0	176	1.6	2	1.8
Kentucky	67	1.6	9	1.2	177	2.7	10	9.9	146	1.3	4	3.6
Louisiana	87	2.1	19	2.6	81	1.2	1	1.0	182	1.7	3	2.7
Maine	1	0.0	1	0.1	45	0.7	1	1.0	121	1.1	1	0.9
Maryland	40	1.0	7	1.0	87	1.3	0	0.0	181	1.7	1	0.9
Massachusetts	74	1.8	16	2.2	132	2.0	1	1.0	397	3.7	2	1.8
Michigan	93	2.2	21	2.9	171	2.6	1	1.0	303	2.8	5	4.5
Minnesota	89	2.1	14	1.9	111	1.7	0	0.0	274	2.5	2	1.8
Mississippi	70	1.7	14	1.9	72	1.1	0	0.0	134	1.2	0	0.0
Missouri	112	2.7	25	3.4	165	2.5	0	0.0	259	2.4	3	2.7
Montana	4	0.1	0	0.0	36	0.5	0	0.0	99	0.9	3	2.7
Nebraska	28	0.7	2	0.3	45	0.7	0	0.0	145	1.3	6	5.5
Nevada	2	0.0	0	0.0	42	0.6	0	0.0	40	0.4	0	0.0
New Hampshire	14	0.3	2	0.3	39	0.6	0	0.0	73	0.7	0	0.0
New Jersey	103	2.5	25	3.4	135	2.0	0	0.0	284	2.6	3	2.7
New Mexico	16	0.4	3	0.4	72	1.1	0	0.0	39	0.4	0	0.0
New York	267	6.4	36	4.9	330	5.0	3	3.0	710	6.5	10	9.1
North Carolina	99	2.4	9	1.2	270	4.1	0	0.0	302	2.8	1	0.9

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	%
North Dakota	30	0.7	3	0.4	36	0.5	0	0.0	46	0.4	1	0.9
Northern Mariana Islands	1	0.0	0	0.0	3	0.0	0	0.0	0	0.0	0	0.0
Ohio	193	4.6	43	5.9	288	4.4	5	5.0	489	4.5	4	3.6
Oklahoma	87	2.1	15	2.0	123	1.9	1	1.0	114	1.1	2	1.8
Oregon	24	0.6	5	0.7	93	1.4	0	0.0	167	1.5	1	0.9
Pennsylvania	169	4.0	32	4.4	198	3.0	3	3.0	547	5.0	6	5.5
Rhode Island	18	0.4	5	0.7	15	0.2	0	0.0	47	0.4	1	0.9
South Carolina	55	1.3	12	1.6	72	1.1	0	0.0	149	1.4	1	0.9
South Dakota	22	0.5	2	0.3	45	0.7	1	1.0	41	0.4	2	1.8
Tennessee	114	2.7	19	2.6	57	0.9	2	2.0	232	2.1	4	3.6
Texas	389	9.3	56	7.6	417	6.3	6	5.9	548	5.0	6	5.5
Utah	61	1.5	5	0.7	63	1.0	7	6.9	60	0.6	0	0.0
Vermont	14	0.3	4	0.5	24	0.4	0	0.0	33	0.3	0	0.0
Virgin Islands	1	0.0	0	0.0	6	0.1	0	0.0	0	0.0	0	0.0
Virginia	115	2.7	22	3.0	267	4.1	11	10.9	176	1.6	3	2.7
Washington	42	1.0	3	0.4	108	1.6	0	0.0	163	1.5	2	1.8
West Virginia	54	1.3	12	1.6	117	1.8	0	0.0	61	0.6	0	0.0
Wisconsin	102	2.4	22	3.0	150	2.3	3	3.0	258	2.4	5	4.5
Wyoming	13	0.3	2	0.3	27	0.4	0	0.0	21	0.2	0	0.0
Total	4,200	100%	733	100%	6,591	100%	101	100%	10,856	100%	110	100%

To acquire the LPN/VN educator responders, three web surveys were emailed to the dean/director of the program to forward and distribute among their staff. 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 or Maternal Child Nursing and (3) Psychiatric (Mental Health) or Community Health Nursing. If the school did not have specialty faculty who could complete the survey, it was asked that additional faculty in the clinical setting who teach Medical/Surgical Nursing participate.

A five-stage emailing process was used to engage the participants in the study. A presurvey email was sent to each person or facility selected for the sample in April 2021. One week later, recipients were sent

an email invitation with a login address and a unique access code. Two weeks later, a reminder email was sent to all participants reiterating the importance of the study and urging participation. Approximately two weeks after the first email, a second reminder was sent to nonresponders, and two weeks later, a third email was sent to remaining nonresponders. The survey was conducted from April through June 2021. There were 9,450 surveys that were returned as undeliverable email addresses.

Confidentiality

All potential participants were promised confidentiality with regard to their participation and responses. Pre-assigned code numbers were used to facilitate follow-up emails. Files containing email information were

Table 2. Adjusted Return Rates

Job Title	Sample	Surveys Delivered	Adjusted Responses	Adjusted Return Rate %
Newly Licensed LPN/VNs	4,200	4,111	733	17.8
LPN/VN Educators	6,591	1,569	834	53.2
LPN/VN Supervisors	10,856	6,517	944	14.5
Total	21,647	12,197	2,511	20.6

Table 3. Analyzable Return Rates

Job Title	Surveys Delivered	Invalid Responses	Analyzable Responses	Analyzable Return Rate %
Newly Licensed LPN/VNs	4,111	0	733	17.8
LPN/VN Educators	1,569	0	834	53.2
LPN/VN Supervisors	6,517	0	944	14.5
LPN/VN Total	12,197	0	2,511	20.6

kept separate from the data files. The study protocol was approved by NCSBN's chief executive officer for compliance with organizational guidelines used in research studies involving human participants.

Return Rates

There were 4,200 newly licensed LPN/VNs invited to complete the survey, with 4,111 surveys delivered. Of those, there were 733 surveys returned by this group for a return rate of 17.8%. A total of 6,591 LPN/VN educators were invited to complete the survey, with 1,569 surveys delivered. Of those, there were 834 surveys that were returned by this group for a 53.2% return rate. There were 10,856 LPN/VN supervisors invited to complete the survey, with 6,517 LPN/VN surveys delivered. Of those, 944 surveys were returned by this group for a return rate of 14.5%. The total number of surveys distributed was 12,197, with an adjusted return rate of 20.6% (as shown in [Table 2](#)).

Of the 2,511 surveys received, there were no invalid responses. If there were responders that did not report holding an LPN/VN or RN license, their responses would not have been included in the analysis. With the implementation of these quality control procedures, there were still 2,511 analyzable surveys with a return rate of 20.6% for the overall group. The analyzable return

rates were 17.8%, 53.2% and 14.5% for newly licensed LPN/VNs, LPN/VN educators and LPN/VN supervisors, respectively (as shown in [Table 3](#)).

Knowledge Survey Nonresponder Study

In order to ensure the validity of the results, NCSBN conducted a survey of nonresponders to determine if those LPN/VNs not responding would have rated the knowledge statements differently than the survey responders. If there were no systematic differences in responders versus nonresponders, it would be concluded that the results are not biased and it would provide evidence to support the validity of the results. A stratified random sample of nonresponders (newly licensed LPN/VNs, LPN/VN educators and LPN/VN supervisors) were contacted via email or telephone. The web survey or telephone interview was obtained with 62 participants: 39 newly licensed LPN/VNs, 16 LPN/VN educators and 7 LPN/VN supervisors. The study found that the majority of the nonresponders did not receive the initial survey invitation, were too busy to complete the survey or did not respond for other reasons. More importantly, the study found that the nonresponder knowledge statement ratings were very similar to responder ratings; this similarity supports the validity of the results of this study. A full report of the nonresponder study can be found in [Appendix I](#).

Summary

A panel of six LPN/VNs experienced in the practice of newly licensed LPN/VNs met and created a list of 280 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 emailed. The surveyed LPN/VNs were divided into the following categories: 4,200 newly licensed LPN/VNs; 6,591 LPN/VN educators (obtained by deans/directors distributing three web surveys to educator staff); and 10,856 LPN/VN supervisors (obtained by sending a survey to 4,000 hospitals and 6,856 nonhospital health care settings). A 20.6% response rate of analyzable surveys was obtained for the total group. This analysis contains the responses of 733 newly licensed LPN/VNs, 834 LPN/VN educators and 944 LPN/VN supervisors.

DEMOGRAPHICS, EXPERIENCES AND PRACTICE ENVIRONMENTS OF PARTICIPANTS

Demographics/Experiences

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

Nursing Licenses Held

Responder were asked what type of nursing licenses they held, with the option of choosing LPN/VN, RN and/or APRN licenses. There were 99.6% of newly licensed LPN/VNs that responded they held an LPN/VN license. There were 10.9% of LPN/VN educators and 16.4% of LPN/VN supervisors that held an LPN/VN license. The remainder of the responders held an RN license or an APRN license. **Figure 1** shows the percentage of responders that held an LPN/VN, RN and/or APRN license among the three job titles for 2021. In comparison with the results from 2018, the reported figures for holding an LPN/VN license were very similar for newly licensed LPN/VNs (100%). However, increases for holding an LPN/VN license were reported when compared to 2018 for LPN/VN educators (4.0%) and

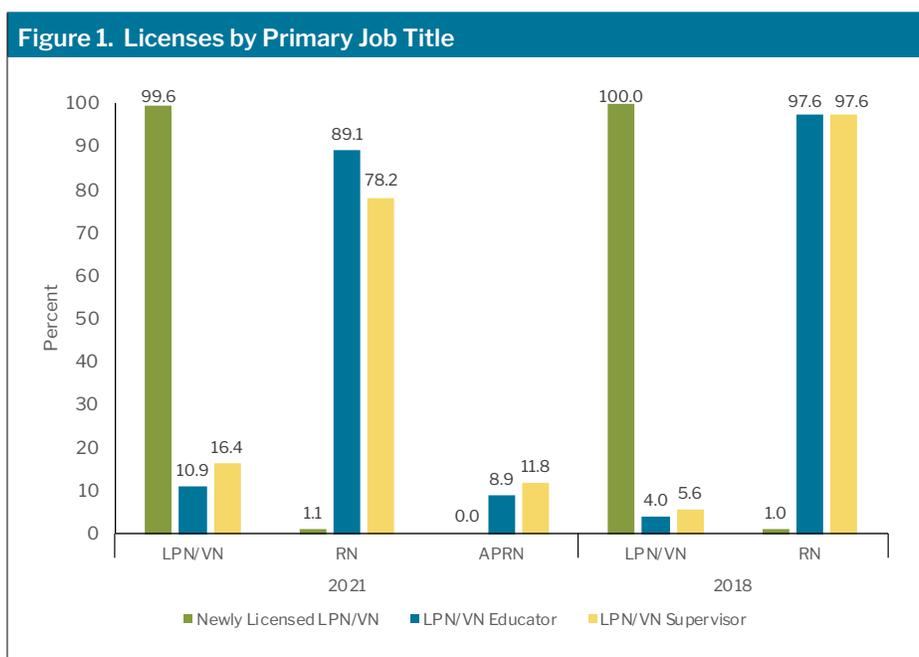
LPN/VN supervisors (5.6%). Responders were allowed to select both licenses, so the percentages total more than 100%.

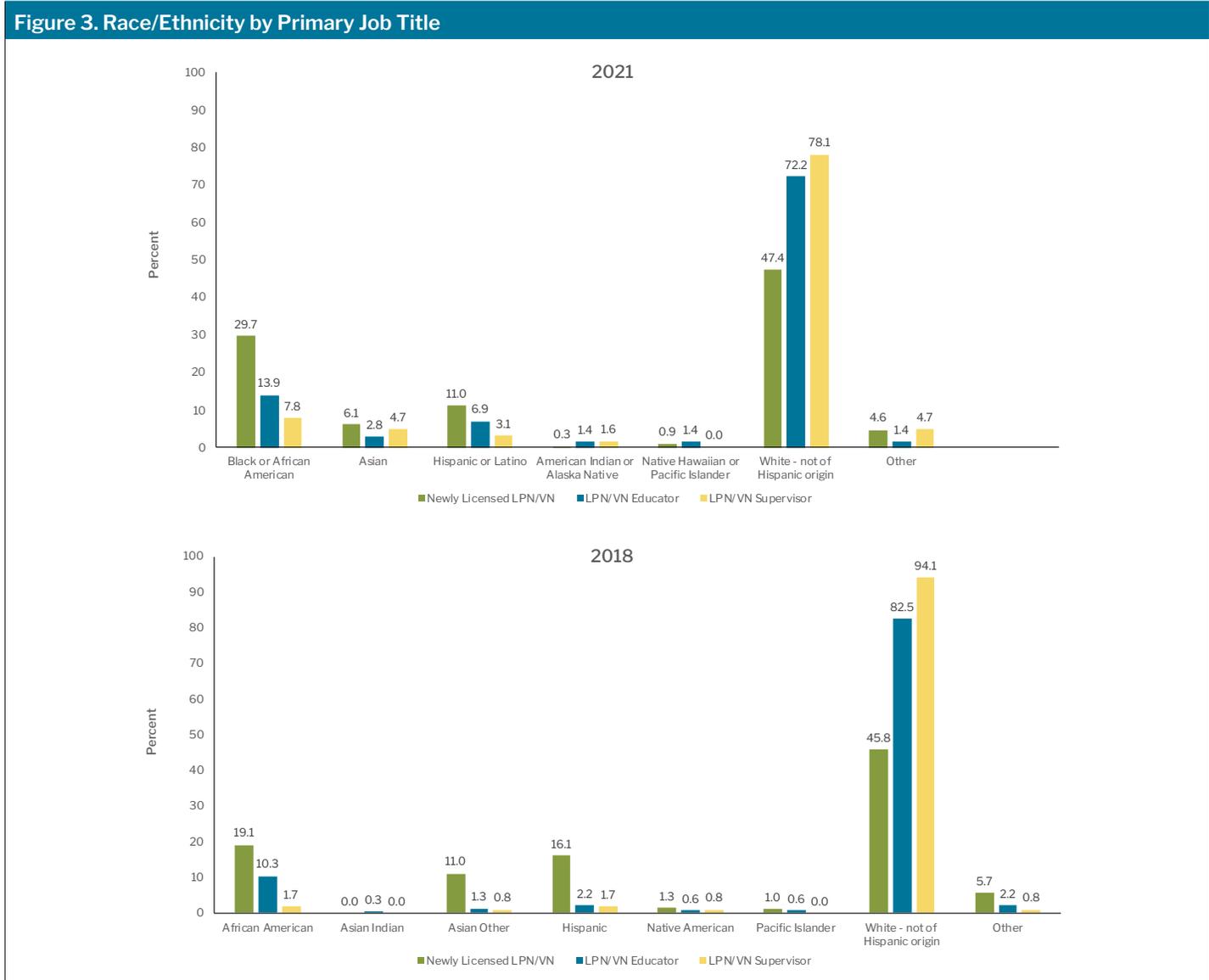
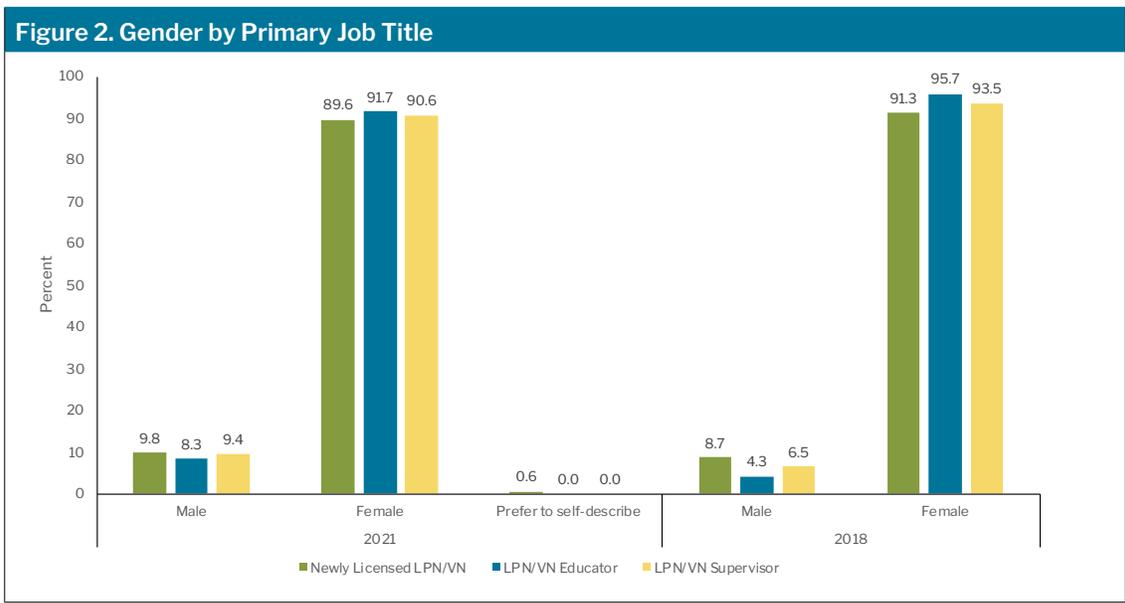
Gender

Of the total responders who indicated their gender on the survey, 90.1% reported their gender as female. The percentage of females by primary job title is as follows: newly licensed LPN/VNs (89.6%), LPN/VN educators (91.7%) and LPN/VN supervisors (90.6%). In 2018, 94.2% of the total responders reported their gender as female. See **Figure 2** for the percentages of gender by primary job title in 2021 and 2018.

Age

Newly licensed LPN/VNs had an average age of 35.8 years (SD = 10.4); LPN/VN educators had an average age of 53.8 years (SD = 12.0); and LPN/VN supervisors had an average age of 53.6 years (SD = 11.1). In 2018, the average ages for the three groups were 31.5 years, 52.0 years and 50.7 years, respectively.





Race/Ethnicity

White – not of Hispanic origin was the race/ethnicity identified most frequently by newly licensed LPN/VNs (47.4%), LPN/VN educators (72.2%) and LPN/VN supervisors (78.1%). See [Figure 3](#) for the percentages of race/ethnicity by primary job title in 2021 and 2018. The percentages of those identifying as White – not of Hispanic origin slightly increased for newly licensed LPN/VN by 1.6% but decreased for LPN/VN educators by 10.3% and LPN/VN supervisors by 16.0% from 2018 to 2021.

Educational Background

The majority of newly licensed LPN/VNs (78.8%) reported having an LPN/VN diploma or certificate. Approximately 39.7% of LPN/VN educators listed their highest degree as an RN generic master's degree earned within the U.S. or an RN associate degree (28.8%), increases of 8.1% and 21.4%, respectively,

when compared to 2018. LPN/VN supervisors most frequently listed their highest degree as an RN associate degree (31.8%) or an RN diploma earned within the U.S. (22.2%), increases of 4.6% and 18.7%, respectively, from 2018. See [Table 4](#) for the educational background of responders sorted by primary job title in 2021 and 2018.

Primary Language

The majority of newly licensed LPN/VNs (83.3%), LPN/VN educators (89.0%) and LPN/VN supervisors (92.1%) reported English as their primary language. In 2018, 71.5% of newly licensed LPN/VNs reported English as their primary language. See [Figure 4](#) for primary language sorted by primary job title.

Years of Experience

There were large variations in months and years LPN/VN educators and LPN/VN supervisors reported working in their jobs. LPN/VN educators spent an average

Table 4. Educational Background by Primary Job Title

Degree	Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor	
	2021	2018	2021	2018	2021	2018
LPN/VN - Diploma/certificate in U.S.	78.8%	77.3%	1.4%	1.2%	6.4%	0.9%
LPN/VN - Associate degree in U.S.	15.3%	16.7%	0.0%	0.0%	4.8%	0.9%
RN - Baccalaureate degree in U.S.	0.3%	0.4%	1.4%	28.2%	9.5%	31.6%
RN - Diploma in U.S.	1.2%	0.0%	2.7%	0.8%	22.2%	3.5%
RN - Associate degree in U.S.	0.0%	1.4%	28.8%	7.4%	31.8%	27.2%
RN - Generic master's degree in U.S.	0.0%	0.0%	39.7%	31.6%	14.3%	23.7%
RN - Master's degree in U.S. (non-Advanced Practice Nurse)	0.0%	N/A	12.3%	N/A	6.4%	N/A
RN - Master's degree in U.S. (Advanced Practice Nurse)	0.0%	0.0%	12.3%	10.3%	6.4%	4.4%
RN - Doctorate degree in U.S. (non-DNP)	0.0%	0.0%	4.1%	1.5%	0.0%	0.0%
RN - Doctorate degree in U.S. (DNP)	0.0%	0.0%	5.5%	3.1%	1.6%	1.8%
Any nursing program NOT located in the U.S.	1.2%	2.5%	0.0%	0.0%	1.6%	0.9%
In progress to complete an advanced degree in nursing	0.9%	N/A	0.0%	N/A	0.0%	N/A
In progress to complete generic master's	N/A	0.0%	N/A	0.5%	N/A	0.9%
Other program	2.2%	1.8%	4.1%	15.4%	1.6%	4.4%

Figure 4. Primary Language by Primary Job Title

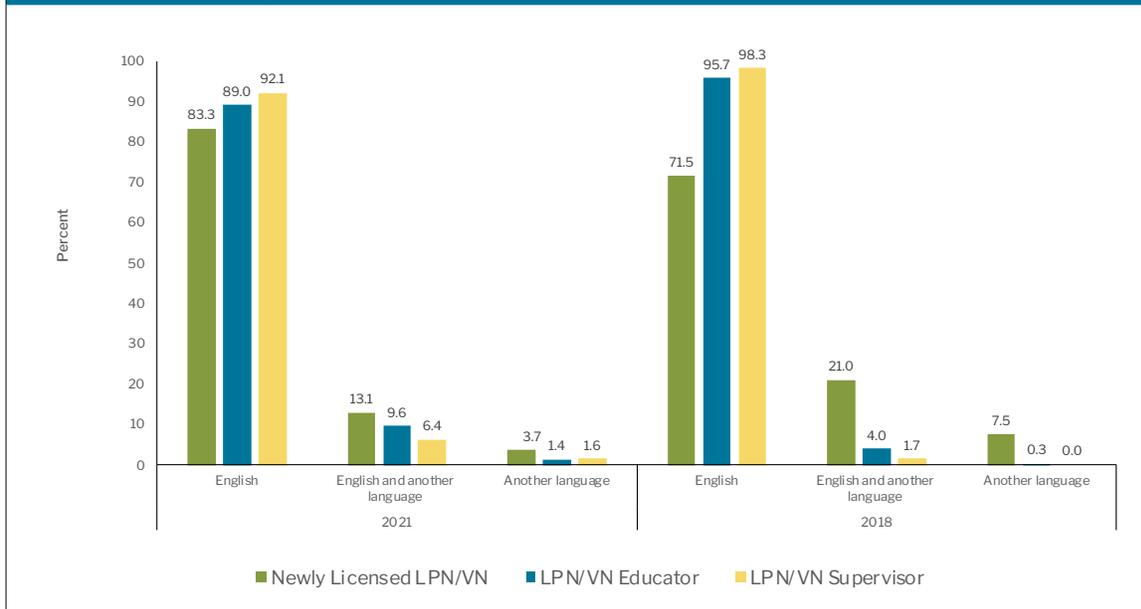
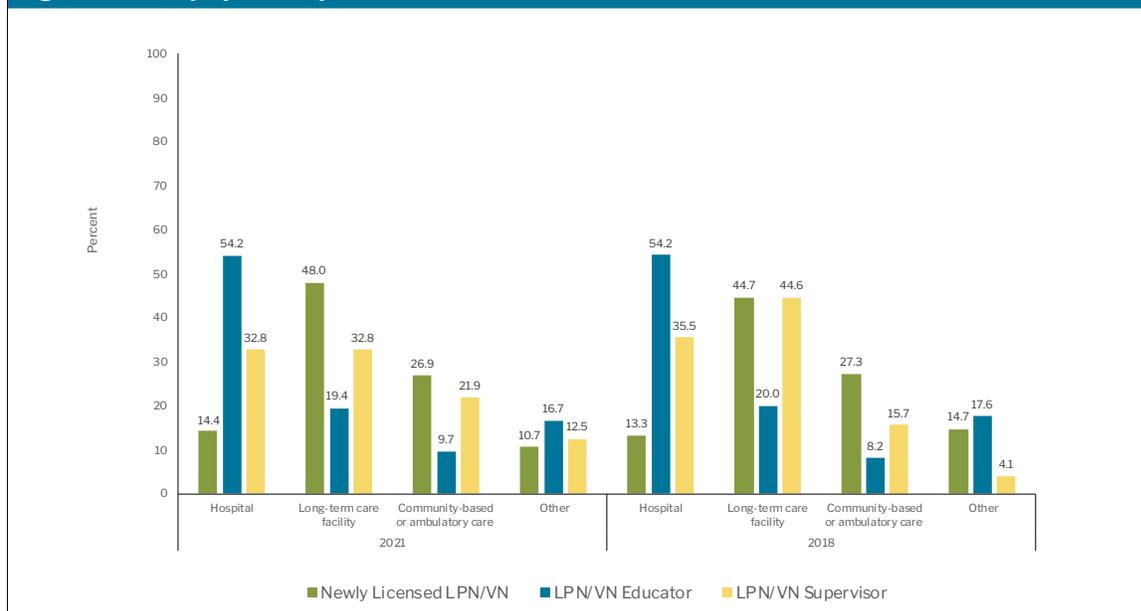


Figure 5. Facility by Primary Job Title



of 9.5 years in their jobs, which is less than LPN/VN supervisors, who spent an average of 17.2 years in their jobs. Newly licensed LPN/VNs were asked how long it had been since they completed course requirements for their nursing programs, and they reported an average of 0.6 years. In 2018, newly licensed LPN/VNs reported an average of 1.4 years since course completion; LPN/VN educators reported an average of 9.3 years in their jobs while LPN/VN supervisors had spent an average of 12.4 years in their jobs.

Facilities

Newly licensed LPN/VNs (48.0%) worked primarily in long-term care facilities. LPN/VN educators (54.2%) worked primarily in hospitals. LPN/VN supervisors worked most frequently in long-term care (32.8%) and hospitals (32.8%). See [Figure 5](#) for facility by primary job title in 2021 and 2018.

Figure 6. Client Health Conditions by Primary Job Title

Client Health Conditions

Newly licensed LPN/VNs (30.4%) reported working with clients with stable chronic conditions the most. LPN/VN educators (43.6%) reported working the most with clients with stable chronic conditions. LPN/VN supervisors worked with clients the most at the end of life (29.1%), clients having stable chronic conditions (29.1%) and clients with behavioral/emotional conditions (29.1%). As nurses often work with clients with varying conditions, responders were allowed to give multiple answers, resulting in percentages within each primary job title totaling more than 100%. See [Figure 6](#) for client health conditions sorted by primary job title in 2021 and 2018.

Client Ages

Newly licensed LPN/VNs (32.5%) and LPN/VN supervisors (40.0%) reported that they cared for older adult clients aged 65–85. LPN/VN educators reported that they cared for both adult clients aged 18–64 (47.5%) and older adult clients aged 65–85 (42.6%). Responders were allowed to give multiple answers, resulting in percentages within each primary job title totaling more than 100%. See [Figure 7](#) for client ages sorted by primary job title in 2021 and 2018.

Employment Setting/Specialty

Facilities

The employment setting most frequently reported by newly licensed LPN/VNs (21.1%), LPN/VN educators

Figure 7. Client Ages by Primary Job Title



*In 2018, Pediatric included separate categories: newborns (less than 1 month), infant/toddler (1 month–2 years), preschool (3–5 years), school age (6–12 years) and adolescent (13–17 years). In 2021, Pediatric had one category: ages 0–17. Responders could select all that apply.

(17.8%) and LPN/VN supervisors (20.0%) was long-term care (e.g., nursing home, skilled or intermediate care). On average for all job titles, the least reported employment settings were operating room, including outpatient surgery and surgicenters (0.6%), and labor and delivery (including postpartum unit) (1.1%). Responders were able to answer up to two employment settings, allowing for percentages totaling more than 100%. See [Table 5](#) for employment settings and specialties in both 2021 and 2018.

Summary

The average newly licensed LPN/VN responder was an English-speaking white female with an average age of 35.8 years. She held an LPN/VN diploma/certificate and worked primarily in a long-term care facility caring for older adult clients (ages 65–85) with stable chronic

health conditions. She had been an LPN/VN for under one year.

The average LPN/VN educator responder was an English-speaking white female with an average age of 53.8 years. She held an RN master's degree within the U.S. She worked primarily in a hospital caring for adult clients aged 18–64 with stable chronic health conditions. On average, she had been an LPN/VN educator for 9.5 years.

The average LPN/VN supervisor responder was an English-speaking white female with an average age of 53.6 years. She held an RN associate degree from a college/university within the U.S. She worked in long-term care facilities and hospitals caring for older clients aged 65–85 at end of life or with stable chronic or behavioral/emotional conditions. On average, she worked as an LPN/VN supervisor for 17.2 years.

Table 5. Employment Setting/Specialty

Employment Setting	Year	Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor		Total	
		N	%	N	%	N	%	N	%
Critical care (e.g., ICU, CCU, step-down units, pediatric/neonatal intensive care, emergency department, postanesthesia recovery unit)	2021	16	2.1	6	5.9	7	6.3	29	3.0
	2018	4	1.3	79	11.7	8	6.4	91	8.2
Medical-surgical unit or any of its subspecialties (e.g., oncology, orthopedics, neurology)	2021	29	3.9	29	28.7	11	10.0	69	7.3
	2018	28	9.2	312	46.2	32	25.6	372	33.7
Pediatrics (including nursery)	2021	26	3.5	7	6.9	4	3.6	37	3.9
	2018	12	4.0	77	11.4	7	5.6	96	8.7
Labor and delivery (including postpartum unit)	2021	2	0.3	7	6.9	1	0.9	10	1.1
	2018	1	0.3	145	21.4	2	1.6	148	13.4
Psychiatry or any of its subspecialties (e.g., detox inpatient, outpatient)	2021	21	2.9	9	8.9	0	0.0	30	3.2
	2018	16	5.3	82	12.1	2	1.6	100	9.1
Assisted living	2021	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2018	43	14.2	9	1.3	3	2.4	55	5.0
Operating room, including outpatient surgery and surgicenters	2021	3	0.4	1	1.0	2	1.8	6	0.6
	2018	5	1.7	13	1.9	3	2.4	21	1.9
Long-term care (e.g., nursing home, skilled or intermediate care)	2021	155	21.1	18	17.8	22	20.0	195	20.7
	2018	142	46.9	229	33.9	59	47.2	430	38.9
Residential (e.g., developmental disability)	2021	19	2.6	1	1.0	3	2.7	23	2.4
	2018	40	13.2	38	5.6	10	8.0	88	8.0
Rehabilitation (e.g., subacute or transitional care unit)	2021	80	10.9	7	6.9	5	4.5	92	9.7
	2018	79	26.1	106	15.7	51	40.8	236	21.4
Ambulatory care, physician office or clinics (e.g., physician/APRN/dentist office, occupational health, outpatient clinic)	2021	43	5.9	5	5.0	11	10.0	59	6.3
	2018	45	14.8	24	3.5	7	5.6	76	6.9
Home health, including visiting nurses associations	2021	35	4.8	4	4.0	2	1.8	41	4.3
	2018	33	10.9	18	2.7	18	14.4	69	6.3
Public health (e.g., public health/occupational health, student/school health, prison/correctional facility/jail)	2021	21	2.9	2	2.0	1	0.9	24	2.5
	2018	23	7.6	35	5.2	0	0.0	58	5.2
Hospice care	2021	6	0.8	4	4.0	6	5.5	16	1.7
	2018	23	7.6	21	3.1	10	8.0	54	4.9
Palliative care	2021	14	1.9	0	0.0	0	0.0	14	1.5
	2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Short stay	2021	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2018	1	0.3	8	1.2	1	0.8	10	0.9
Step-down care	2021	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2018	3	1.0	11	1.6	4	3.2	18	1.6
Other	2021	39	5.3	13	12.9	12	10.9	64	6.8
	2018	18	5.9	91	13.5	11	8.8	120	10.9

KNOWLEDGE STATEMENT FINDINGS

Overview of Methods

The 2021 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 Validation of Survey Findings

The SME Panel for the 2021 Knowledge of Newly Licensed LPN/VN Survey was asked to provide independent ratings of the 280 knowledge statements. See [Appendix C](#) for average importance ratings of the SMEs.

In order to validate the results of the survey, the average importance ratings estimated by the SMEs were compared to the average importance ratings from the knowledge survey. As shown in [Table 6](#), there was, in general, consistency among the highest and also the lowest importance knowledge statements across the ratings of the newly licensed LPN/VNs, LPN/VN educators, LPN/VN supervisors and SMEs. There seems to be evidence from several sources that provide convergent validity on the knowledge needed by newly licensed LPN/VNs in order to practice safely and effectively. The ratings of SMEs compared to survey responder ratings, categorized by job titles, are presented in [Appendices D, E and F](#).

The importance ratings of SMEs compared to the ratings of each subgroup were similar. There was only one knowledge statement average rating that had more than a one-point difference between SMEs and newly licensed LPN/VNs. This was "client advocacy" (SME ratings averaged 3.33 and newly licensed LPN/VN averaged 4.48). There were seven knowledge statement average ratings that had more than a one-point difference between the SMEs and LPN/VN educators.

The knowledge statement with the largest difference in importance ratings was "client advocacy" (SME ratings averaged 3.33 and LPN/VN educator ratings averaged 4.55). Five knowledge statement average ratings had more than a one-point difference between SMEs and LPN/VN supervisors. The knowledge statement with the largest difference in importance ratings was "client in labor" (SME ratings averaged 4.17 and LPN/VN supervisor ratings averaged 2.82). This information on knowledge needed by newly licensed LPN/VNs from multiple sources provides a more accurate description than a single source.

Representativeness of Knowledge Statements

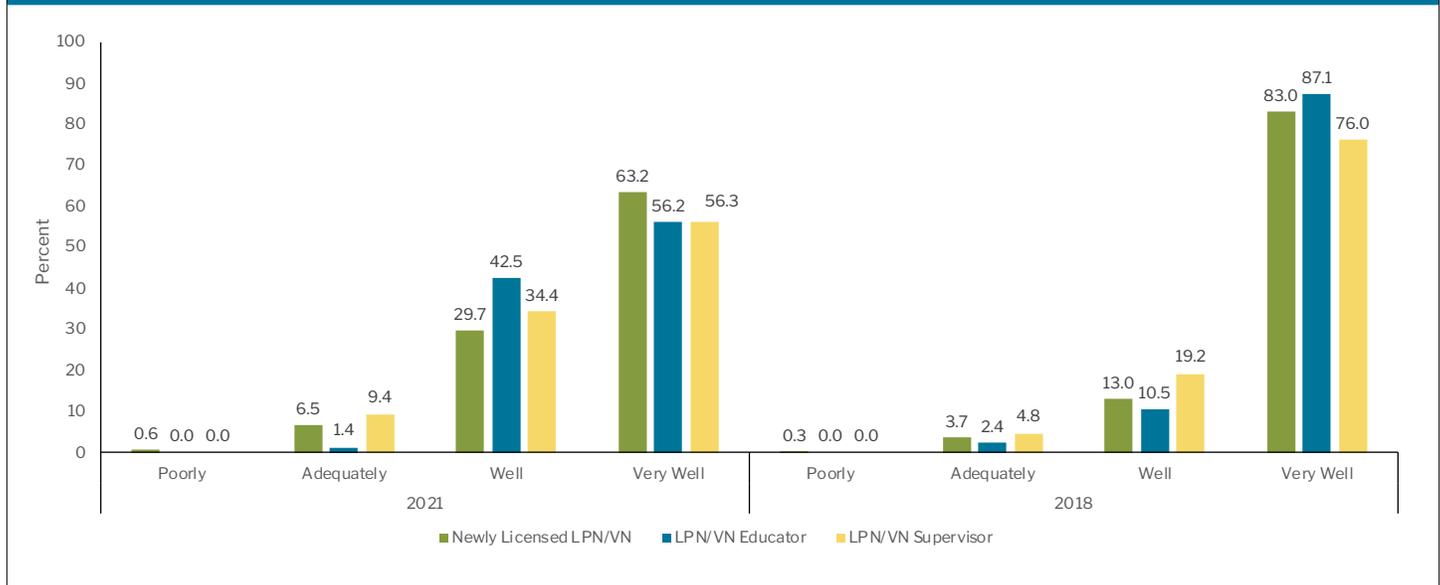
The responders were asked to rate how well the knowledge statements represented the knowledge areas a newly licensed LPN/VN should possess by choosing one of four options: "Poorly," "Adequately," "Well" or "Very Well." The vast majority of survey responders within each job title reported the survey covered the important knowledge areas of a newly licensed LPN/VN "Well" or "Very Well" (92.9% of newly licensed LPN/VNs, 98.7% of LPN/VN educators and 90.7% of LPN/VN supervisors). A large percentage of newly licensed LPN/VNs (63.2%), LPN/VN educators (56.2%) and LPN/VN supervisors (56.3%) responded that the survey represented the necessary knowledge areas "Very Well." See [Figure 8](#) for responses of survey adequacy by primary job title in 2021 and 2018.

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 that a newly licensed LPN/VN needs for safe and effective practice.

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		SME	
Knowledge Statement	Avg. (1-5 scale)	Knowledge Statement	Avg. (1-5 scale)	Knowledge Statement	Avg. (1-5 scale)	Knowledge Statement	Avg. (1-5 scale)
Medication	4.81	Infection Control	4.90	Cardiopulmonary Resuscitation	4.95	Allergic Reactions	4.83
Client Safety		Medication Administration Safety	4.88	Medication Administration Safety	4.83	Cardiopulmonary Resuscitation	4.67
Infection Control	4.79	Client Identification	4.87	Allergic Reactions	4.82	Client Safety	
Medication Administration Safety		Medication	4.83	Client Safety	4.76	Documentation	
Responses to Life-threatening Situations	4.78	Aseptic Technique	4.81	Medication	4.74	Medication Administration Rights	
		Medication Administration Calculations				Medication Administration Safety	
		Interventions to Life-threatening Situations		Medication Administration Calculations			
		Confidentiality and Privacy Laws		Oxygen Saturation Monitoring			
		Standard/Universal Precautions		Rights of Medication Administration			
					Scope of Practice		
Least Important Knowledge Statements							
Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor		SME	
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	3.24	Ear Irrigation	2.42	Nose Irrigation	2.58	Reminiscence Therapy	2.83
Nose Irrigation	3.25	Nose Irrigation	2.54	Postpartum Client	2.69	Interviewing Skills	3.00
Ear Irrigation	3.32	Eye Irrigation	2.81	Fetal Heart Monitoring	2.71	Quality Improvement	
Gender Identity	3.40	Staple Removal	2.85	Newborn Client Care	2.77	Referral	
Personal Biases	3.42	Fetal Heart Monitoring	2.96	Antepartum Client	2.79	Relaxation Techniques	
						Usage of Social Media Related to Client Information	

Figure 8. Survey Adequacy by Primary Job Title

Knowledge Statements

Importance of Knowledge Statements

The knowledge needed for 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 SME panel ratings and survey responder ratings of the 280 knowledge statements yielded similar results.

The five least important and the five most important knowledge statements for all groups are shown in [Table 6](#) along with their average ratings. All of the groups (newly licensed LPN/VNs, LPN/VN educators, LPN/VN supervisors and SMEs) rated "medication administration safety" among the five most important knowledge statements. The highest and lowest ranked statements

by primary job title (newly licensed LPN/VN, LPN/VN educator and LPN/VN supervisor) are shown in [Tables 7](#) and [8](#) for the 2021 and 2018 surveys.

The average importance of ratings 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 D, E](#) and [F](#) 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 was used in 2018, it would not be possible to make individual comparisons between the two surveys.

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 newly licensed LPN/VNs was "group session" with an average value of 3.24. LPN/VN educators rated "ear irrigation" as the least important knowledge statement with an average value of 2.42. LPN/VN supervisors rated "nose irrigation"

Table 7. Most Important Knowledge Statements from 2021 and 2018 Surveys

Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor	
2021	2018	2021	2018	2021	2018
Client Safety	Client Safety	Infection Control	Client Identification	Cardiopulmonary Resuscitation	Universal/Standard Precautions
Medication	Aseptic Technique	Medication Administration Safety	Client Safety	Medication Administration Safety	HIPAA
Infection Control	Infection Control	Client Identification	Medication Administration Rights	Allergic Reactions	Infection Control
Medication Administration Safety	HIPAA	Medication	Aseptic Technique	Client Safety	Vital Signs
Responses to Life-threatening Situations	Cardiopulmonary Resuscitation	Aseptic Technique	Medication Safety Practices	Medication	Scope of Practice
		Medication Administration Calculations		Medication Administration Rights	
		Interventions to Life-threatening Situations			
		Confidentiality and Privacy Laws			
		Standard/Universal Precautions			

Table 8. Least Important Knowledge Statements from 2021 and 2018 Surveys

Newly Licensed LPN/VN		LPN/VN Educator		LPN/VN Supervisor	
2021	2018	2021	2018	2021	2018
Group Session	Group Therapy Sessions	Ear Irrigation	Ultrasounds	Nose Irrigation	Care for Clients in Labor
Nose Irrigation	Nose Irrigation	Nose Irrigation	Nose Irrigation	Postpartum Client	Group Therapy Sessions
Ear Irrigation	Herbal Supplements	Eye Irrigation	Epidurals	Fetal Heart Monitoring	Antepartum Client Care
Gender Identity	Reminiscence Therapy	Staple Removal	Peripheral Nerve Catheters	Newborn Client Care	Labor Process
Personal Biases	Social Media Usage	Fetal Heart Monitoring	Fetal Heart Monitoring	Antepartum Client	Epidurals

the lowest with an average value of 2.58. The most important knowledge statements for newly licensed LPN/VNs were “client safety” and “medication,” each with an average value of 4.81. LPN/VN educators rated “infection control” as the highest knowledge statement with an average value of 4.90. LPN/VN supervisors rated “cardiopulmonary resuscitation” the highest with an average value of 4.95. In general, there were few differences in importance ratings based on job

title. Average importance ratings for all knowledge statements by primary job title are listed in [Appendix G](#).

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge Statements	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
1	Abuse Prevention	271	4.62	0.04	30	4.60	0.12	39	4.41	0.15
2	Active Listening	259	4.71	0.03	54	4.67	0.07	47	4.70	0.09
3	Activities of Daily Living	271	4.31	0.04	31	4.32	0.16	39	4.26	0.13
4	Acute Illness	257	4.39	0.04	54	4.37	0.09	46	4.37	0.11
5	Adaptive Devices	270	4.07	0.05	31	4.03	0.15	39	3.79	0.12
6	Adolescent Client Care	258	3.79	0.07	54	3.70	0.09	48	3.60	0.15
7	Adult Client Care	272	4.46	0.04	31	4.55	0.14	38	4.34	0.11
8	Advance Directive	257	4.06	0.06	54	3.87	0.13	46	4.07	0.14
9	Adverse Events	269	4.58	0.04	31	4.68	0.12	39	4.54	0.10
10	Adverse Reactions	257	4.70	0.03	54	4.69	0.09	46	4.70	0.08
11	Allergic Reactions	270	4.75	0.03	31	4.71	0.09	39	4.82	0.07
12	Alternative/Complementary Therapy	256	3.50	0.07	53	3.42	0.11	46	3.17	0.13
13	Antepartum Client	270	3.83	0.07	31	3.26	0.23	38	2.79	0.22
14	Appropriate Resources	255	4.15	0.05	53	4.02	0.11	46	4.13	0.11
15	Aseptic Technique	270	4.66	0.04	31	4.81	0.07	39	4.67	0.08
16	Aspiration Precautions	255	4.69	0.05	53	4.66	0.08	46	4.63	0.10
17	Assistive Devices	269	3.98	0.05	31	3.87	0.17	38	3.87	0.13
18	Assistive Devices for Medication Administration	257	4.14	0.06	53	4.04	0.11	47	3.96	0.13
19	Available Resources	267	4.12	0.05	31	3.87	0.16	39	3.82	0.14
20	Barriers to Learning	257	3.93	0.06	53	3.98	0.10	46	3.98	0.13
21	Basic Cardiac Abnormalities	269	4.40	0.05	31	4.00	0.19	39	4.28	0.14
22	Behavioral Disorders	254	4.07	0.05	53	3.94	0.10	46	3.98	0.10
23	Behavioral Management	269	4.13	0.05	31	3.87	0.18	39	4.23	0.12
24	Behavioral Management Techniques	254	4.10	0.05	53	4.11	0.09	46	4.24	0.11
25	Bladder Irrigation	269	3.88	0.06	31	3.06	0.24	39	3.51	0.19
26	Bladder Management Protocol	254	3.93	0.06	53	3.98	0.11	47	3.64	0.11
27	Bladder Palpation Technique	269	3.67	0.07	31	3.35	0.20	39	3.49	0.18
28	Blood Glucose Monitoring	254	4.59	0.04	53	4.55	0.07	45	4.38	0.10
29	Blood Product	270	4.07	0.07	30	3.57	0.24	39	3.46	0.20
30	Blood Product Transfusion	253	4.12	0.08	53	3.91	0.15	47	3.91	0.21
31	Body Mechanics	268	4.22	0.05	30	4.50	0.14	39	4.31	0.11
32	Bowel Management Protocol	254	3.96	0.06	53	3.98	0.11	46	3.80	0.13
33	Cardiopulmonary Resuscitation	267	4.77	0.04	31	4.71	0.09	39	4.95	0.04
34	Care of Toddler Client through Two Years	252	3.62	0.08	53	3.53	0.12	47	3.11	0.17
35	Care Plan	269	3.79	0.07	31	3.65	0.18	39	3.85	0.16
36	Central Venous Catheter	253	4.04	0.07	53	3.25	0.16	46	3.46	0.18

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge Statements	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
37	Central Venous Catheter Management	269	4.00	0.07	30	3.03	0.25	39	3.56	0.20
38	Chain of Command	255	3.93	0.06	53	4.26	0.09	47	4.32	0.09
39	Chemical Dependency	267	3.93	0.06	30	3.63	0.16	39	3.49	0.15
40	Chemical Toxicity	253	4.26	0.06	53	4.04	0.13	46	4.02	0.15
41	Chronic Illness	266	4.16	0.05	30	4.23	0.15	38	4.11	0.10
42	Circulatory Checks	252	4.42	0.05	53	4.53	0.10	47	4.38	0.11
43	Client Advocacy	266	4.48	0.04	31	4.55	0.10	39	4.21	0.10
44	Client Allergies	254	4.75	0.03	53	4.74	0.07	46	4.59	0.10
45	Client Autonomy	265	4.29	0.05	30	4.53	0.11	37	3.92	0.14
46	Client Baseline Data	252	4.38	0.04	53	4.38	0.09	46	4.39	0.10
47	Client Care Prioritization	265	4.49	0.04	31	4.61	0.10	39	4.21	0.11
48	Client Cognitive Ability	253	4.10	0.05	53	4.15	0.09	46	4.17	0.09
49	Client Communication	266	4.43	0.04	30	4.53	0.10	37	4.51	0.09
50	Client Complication	254	4.30	0.05	53	4.30	0.10	47	4.23	0.11
51	Client Condition	263	4.54	0.04	31	4.65	0.11	39	4.46	0.10
52	Client Consent	254	4.63	0.04	53	4.58	0.08	46	4.46	0.09
53	Client Disease Processes and Conditions	267	4.41	0.04	31	4.52	0.12	39	4.38	0.09
54	Client Education	255	4.22	0.05	53	4.30	0.09	47	4.00	0.08
55	Client Equipment	266	3.93	0.05	30	4.00	0.15	39	3.79	0.14
56	Client Evaluation	254	4.39	0.04	53	4.32	0.09	46	4.20	0.09
57	Client Health History	265	4.30	0.05	31	4.32	0.13	39	4.08	0.10
58	Client History	253	4.31	0.04	53	4.09	0.07	47	4.28	0.10
59	Client Identification	264	4.66	0.04	31	4.87	0.06	39	4.64	0.09
60	Client Identification Methods	253	4.50	0.04	53	4.75	0.06	46	4.33	0.10
61	Client in Labor	263	3.93	0.07	31	3.39	0.23	39	2.82	0.23
62	Client Knowledge Deficit	254	4.11	0.05	53	4.02	0.10	46	4.02	0.11
63	Client Limitations	266	4.13	0.05	30	3.97	0.15	39	4.00	0.11
64	Client Literacy	254	3.87	0.05	53	3.79	0.11	46	3.78	0.11
65	Client Medication History	267	4.42	0.04	30	4.30	0.16	38	4.32	0.13
66	Client Mental Competency	253	4.18	0.05	53	4.00	0.10	47	4.15	0.11
67	Client Mental Status	265	4.40	0.04	31	4.45	0.11	39	4.46	0.10
68	Client Nutrition	255	4.22	0.05	53	4.17	0.09	46	3.83	0.10
69	Client Observation	264	4.28	0.05	30	4.40	0.11	39	4.33	0.09
70	Client Privacy	254	4.50	0.04	53	4.47	0.07	47	4.47	0.10
71	Client Psychosocial Needs	265	4.17	0.05	31	4.16	0.14	38	4.13	0.11
72	Client Rights	254	4.57	0.04	52	4.60	0.07	46	4.59	0.09

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge Statements	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
73	Client Risk Identification	266	4.35	0.05	30	4.33	0.15	38	4.32	0.12
74	Client Safety	252	4.81	0.03	53	4.79	0.06	46	4.76	0.08
75	Client Self-advocacy	264	4.08	0.05	31	3.87	0.14	37	3.84	0.12
76	Client Spiritual Beliefs	254	3.92	0.06	53	3.83	0.11	46	3.70	0.12
77	Client Stressors	266	3.98	0.05	31	3.97	0.14	37	3.76	0.11
78	Client Vital Signs	254	4.69	0.03	53	4.74	0.06	47	4.57	0.09
79	Client Weight	264	3.80	0.06	31	3.87	0.19	38	3.79	0.12
80	Client-centered Care	254	4.32	0.05	53	4.34	0.08	46	4.26	0.11
81	Code of Ethics	267	4.40	0.04	31	4.77	0.08	38	4.50	0.09
82	Cognitive Impairment	253	4.12	0.05	53	4.02	0.09	47	4.09	0.10
83	Comfort Measures	266	4.18	0.05	31	4.45	0.14	38	4.26	0.12
84	Communication Barriers	251	4.04	0.05	53	4.02	0.10	46	4.02	0.11
85	Communication Skills	267	4.50	0.04	30	4.60	0.10	38	4.55	0.09
86	Community Resources	251	3.73	0.06	52	3.62	0.10	47	3.60	0.12
87	Compression Stockings	262	3.80	0.06	31	3.55	0.19	38	3.74	0.12
88	Confidentiality	253	4.62	0.04	52	4.71	0.06	46	4.70	0.08
89	Confidentiality and Privacy Laws	266	4.60	0.04	31	4.81	0.10	38	4.50	0.10
90	Conflict Resolution	252	4.03	0.05	53	4.04	0.09	46	4.00	0.09
91	Continuity of Care	265	4.21	0.05	31	4.16	0.15	38	4.11	0.13
92	Continuous Suction of Nasogastric Tube	255	3.99	0.07	54	3.94	0.13	46	3.57	0.16
93	Cooling Measures	262	3.71	0.06	31	3.35	0.17	38	3.39	0.13
94	Coping Mechanisms	254	3.96	0.06	54	4.06	0.09	46	4.02	0.09
95	Cost Effective Care	264	3.58	0.06	31	3.26	0.17	37	3.54	0.13
96	Critical Thinking	255	4.67	0.04	54	4.74	0.07	46	4.67	0.08
97	Cultural Competency	265	4.11	0.05	31	4.32	0.13	38	4.05	0.11
98	Data Collection	252	4.38	0.05	54	4.44	0.08	47	4.09	0.11
99	De-escalation Techniques	265	4.31	0.05	31	3.97	0.17	38	4.37	0.12
100	Delegation	254	4.02	0.05	54	3.94	0.11	45	3.80	0.13
101	Developmental Stages	204	3.68	0.07	26	3.77	0.24	31	3.45	0.17
102	Diagnostic Test Procedures	194	4.08	0.07	48	3.92	0.10	44	3.82	0.12
103	Diagnostic Test Results	202	4.32	0.06	26	4.00	0.17	31	4.32	0.13
104	Diagnostic Values	193	4.21	0.07	48	4.06	0.09	44	3.93	0.12
105	Disaster Drills	203	3.93	0.07	26	3.58	0.24	31	3.84	0.17
106	Discharge Process	190	3.63	0.08	48	3.77	0.10	43	3.88	0.11
107	Documentation	203	4.67	0.04	26	4.62	0.12	31	4.58	0.10
108	Drainage Device	189	3.96	0.07	48	3.83	0.09	43	3.74	0.13

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge Statements	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
109	Ear Irrigation	203	3.32	0.08	26	2.42	0.22	31	2.84	0.21
110	Electrocardiogram	192	4.03	0.08	48	3.73	0.12	43	3.67	0.16
111	Electronic Medical Records (EMR)	203	4.34	0.06	26	4.23	0.18	31	4.16	0.14
112	Emergency Preparedness	192	4.53	0.06	48	4.02	0.14	43	4.35	0.11
113	Emergency Procedures	203	4.52	0.05	26	4.42	0.13	31	4.45	0.12
114	Enteral Tube Management	190	4.19	0.07	48	4.08	0.11	42	3.64	0.13
115	Enteral Tube Types	203	4.02	0.07	26	3.27	0.22	31	3.61	0.19
116	Environmental Factors	193	3.83	0.07	48	3.73	0.11	43	3.63	0.11
117	Evidence-based Practice	203	4.18	0.06	26	4.12	0.17	31	4.00	0.17
118	Evidence-based Practice Resources	191	4.04	0.07	48	3.81	0.11	43	3.93	0.12
119	Eye Irrigation	202	3.53	0.08	26	2.81	0.21	31	3.13	0.17
120	Feeding Formula Types	191	3.83	0.08	48	3.56	0.13	43	3.30	0.14
121	Fetal Heart Monitoring	201	3.93	0.09	26	2.96	0.26	31	2.71	0.25
122	Fluid and Electrolyte Imbalance	191	4.49	0.05	48	4.46	0.08	43	4.21	0.14
123	Fluid Balance	201	4.48	0.05	26	4.31	0.14	31	4.19	0.13
124	Follow-up Care Accessibility	191	3.93	0.07	48	3.79	0.10	43	3.65	0.12
125	Follow-up with Clients	202	3.96	0.06	26	4.00	0.17	31	3.90	0.16
126	Functional Status	191	4.13	0.06	48	4.06	0.11	43	3.81	0.11
127	Gender Identity	203	3.40	0.09	25	3.32	0.26	31	3.32	0.17
128	Geriatric Client Care	192	4.27	0.06	48	4.31	0.10	43	4.05	0.12
129	Grieving Process	202	3.96	0.06	25	4.24	0.14	31	3.87	0.18
130	Group Session	190	3.24	0.09	48	3.19	0.12	42	2.90	0.14
131	Health Care Provider's Orders	202	4.62	0.04	26	4.69	0.12	31	4.58	0.12
132	Health Promotion Programs	190	3.56	0.08	48	3.63	0.11	43	3.23	0.12
133	Health Screening Programs	203	3.81	0.06	26	3.69	0.21	31	3.45	0.17
134	Hearing Impairment	191	3.88	0.07	48	3.79	0.11	43	3.63	0.12
135	Hemodialysis	203	4.09	0.08	26	3.12	0.22	31	3.39	0.21
136	High Risk Behaviors	189	4.25	0.06	48	4.06	0.10	43	4.07	0.12
137	Hyperglycemia	203	4.57	0.04	26	4.58	0.10	31	4.32	0.13
138	Hypoglycemia	191	4.73	0.04	48	4.77	0.06	43	4.49	0.10
139	Hypoxia	203	4.71	0.04	26	4.65	0.12	31	4.61	0.10
140	Immunizations	191	3.94	0.07	48	3.94	0.11	43	3.74	0.14
141	Incident Report	203	4.18	0.06	26	4.08	0.23	31	3.90	0.13
142	Incision Care	188	4.38	0.05	48	4.17	0.08	43	4.00	0.09
143	Infant Care	201	3.84	0.09	26	3.35	0.28	31	2.81	0.24
144	Infection Control	188	4.79	0.03	48	4.90	0.04	43	4.67	0.09

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge Statements	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
145	Informed Consent	203	4.41	0.06	26	4.58	0.14	31	4.19	0.12
146	Intake/Output	189	4.25	0.06	48	4.29	0.07	42	4.02	0.11
147	Interdisciplinary Collaboration	203	3.99	0.06	26	4.00	0.18	31	4.16	0.14
148	Interdisciplinary Communication	187	4.00	0.06	48	4.23	0.10	43	4.19	0.10
149	Interdisciplinary Roles and Responsibilities	203	3.99	0.06	26	3.62	0.22	31	4.06	0.12
150	Intermittent Suction of Nasogastric Tube	189	4.15	0.07	48	3.90	0.12	43	3.49	0.14
151	Intervention Implementation	203	4.09	0.06	26	4.00	0.16	31	4.19	0.13
152	Intervention Techniques	189	4.15	0.06	48	4.08	0.10	43	3.74	0.12
153	Interventions to Life-threatening Situations	202	4.65	0.05	26	4.81	0.08	31	4.68	0.10
154	Interviewing Skills	187	3.65	0.08	47	3.74	0.13	43	3.40	0.17
155	Intravenous Complications	203	4.34	0.07	26	3.92	0.25	31	4.23	0.17
156	Intravenous Piggyback Medication	190	4.17	0.08	48	3.94	0.14	43	3.91	0.15
157	Intravenous Site Maintenance	203	4.19	0.07	26	3.88	0.20	31	4.10	0.16
158	Invasive Procedures	189	4.14	0.08	47	3.89	0.13	43	3.65	0.16
159	Isolation Precautions	201	4.45	0.05	26	4.54	0.15	31	4.52	0.15
160	Laboratory Test Results	189	4.39	0.06	48	4.19	0.11	43	4.05	0.12
161	Laboratory Values	202	4.37	0.05	26	3.96	0.22	31	4.10	0.13
162	Learning Barriers	189	3.86	0.07	48	3.79	0.11	43	3.72	0.11
163	Life Transitions	202	3.75	0.07	26	3.77	0.18	30	3.43	0.15
164	Mandatory Reporting	187	4.43	0.06	48	4.40	0.09	43	4.47	0.09
165	Measurement Conversions	202	3.95	0.08	26	3.88	0.22	31	4.00	0.17
166	Medical Equipment	188	4.24	0.06	48	4.02	0.12	43	4.09	0.10
167	Medical Procedures	203	4.17	0.06	26	3.77	0.19	31	4.03	0.14
168	Medication	190	4.81	0.03	48	4.83	0.06	43	4.74	0.08
169	Medication Administration Routes	202	4.59	0.05	26	4.62	0.16	31	4.55	0.09
170	Medication Administration Rights	189	4.70	0.05	48	4.79	0.07	43	4.74	0.08
171	Medication Administration Safety	203	4.79	0.03	26	4.88	0.08	30	4.83	0.07
172	Medication Administration Calculations	188	4.66	0.06	48	4.81	0.06	43	4.65	0.09
173	Medication History	201	4.26	0.06	26	4.15	0.19	31	4.23	0.12
174	Medication Reconciliation	189	4.40	0.06	48	4.33	0.12	43	4.42	0.13
175	Mental Health Disorders	201	4.18	0.05	26	3.88	0.14	31	3.97	0.13
176	Mobility Needs	189	4.07	0.06	48	4.19	0.08	43	3.77	0.12
177	Narcotics/Controlled Substances	202	4.51	0.05	26	4.31	0.15	31	4.32	0.11
178	Nasogastric Tube Maintenance	186	4.09	0.07	48	3.92	0.11	43	3.56	0.14
179	Nasogastric Tube Types	203	3.85	0.08	26	3.31	0.23	31	3.48	0.18
180	Neurological Checks	188	4.49	0.05	48	4.40	0.08	43	4.33	0.09

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge Statements	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
181	Newborn Client Care	202	3.77	0.09	26	3.31	0.28	31	2.77	0.24
182	Non Pharmacological Interventions	189	3.87	0.07	48	4.02	0.10	42	3.71	0.12
183	Nose Irrigation	203	3.25	0.08	26	2.54	0.24	31	2.58	0.20
184	Nurse-Client Relationships	190	4.28	0.05	48	4.35	0.09	43	4.07	0.13
185	Nutritional Norms	202	3.68	0.07	26	3.73	0.19	31	3.45	0.16
186	Order Verification	188	4.65	0.05	48	4.58	0.09	42	4.62	0.08
187	Ostomy Types	203	3.77	0.07	25	3.20	0.23	31	3.52	0.19
188	Oxygen Saturation Monitoring	190	4.57	0.05	48	4.52	0.07	43	4.30	0.10
189	Pacemaker	202	4.11	0.07	26	3.23	0.22	31	3.90	0.14
190	Pain Management	189	4.40	0.05	48	4.50	0.10	43	4.26	0.09
191	Pain Scales	201	4.17	0.06	24	4.50	0.15	31	4.26	0.11
192	Peripheral Intravenous Catheter Maintenance	190	4.29	0.07	48	4.08	0.13	43	4.05	0.13
193	Peripheral Intravenous Catheter Removal	203	3.99	0.08	26	3.12	0.28	31	3.65	0.19
194	Peritoneal Dialysis	186	4.12	0.07	48	3.60	0.15	43	3.30	0.19
195	Personal Biases	202	3.42	0.09	26	3.81	0.25	31	3.87	0.13
196	Personal Limitations	188	4.07	0.06	48	4.13	0.11	43	3.86	0.11
197	Physical Data Norms	203	3.77	0.07	25	3.92	0.18	31	3.71	0.16
198	Plan of Care	189	4.20	0.06	47	4.11	0.11	43	4.07	0.12
199	Policies and Procedures	202	4.26	0.06	26	4.23	0.17	31	4.23	0.12
200	Polypharmacy	190	4.24	0.07	48	4.29	0.10	43	4.09	0.11
201	Postpartum Client	163	3.82	0.10	26	3.42	0.26	26	2.69	0.27
202	Practice Error	160	4.44	0.07	47	4.55	0.08	39	4.21	0.12
203	Prenatal Complication	163	3.99	0.10	26	3.62	0.24	26	3.04	0.29
204	Preschool Client Care	159	3.55	0.10	47	3.36	0.12	39	3.05	0.18
205	Preventative Care	163	4.07	0.07	26	4.19	0.15	25	3.72	0.17
206	Privacy Practices	161	4.34	0.06	47	4.19	0.11	39	4.13	0.13
207	Professional Accountability	163	4.30	0.06	26	4.58	0.11	26	4.35	0.16
208	Professional Boundaries	160	4.31	0.07	47	4.47	0.09	39	4.28	0.12
209	Professional Development	163	4.13	0.07	26	4.04	0.14	26	4.04	0.15
210	Protocols	160	4.38	0.06	47	4.26	0.10	39	4.18	0.11
211	Psychological Evaluation	163	4.04	0.07	26	3.73	0.14	26	3.58	0.18
212	Psychosocial Functioning	160	4.01	0.08	47	3.87	0.11	39	3.74	0.14
213	Quality Improvement	163	3.96	0.07	26	3.69	0.21	26	3.77	0.18
214	Reality Orientation	159	3.95	0.08	47	3.85	0.10	39	3.69	0.13
215	Referral	163	3.52	0.09	26	3.58	0.19	26	3.00	0.21

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge Statements	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
216	Regulatory/Policy Compliance	160	4.17	0.07	47	4.11	0.11	38	4.24	0.12
217	Relaxation Techniques	163	3.78	0.07	26	3.81	0.18	26	3.19	0.19
218	Reminiscence Therapy	160	3.56	0.09	47	3.00	0.14	39	3.13	0.15
219	Resources	163	4.01	0.06	26	3.88	0.21	26	3.50	0.19
220	Respiratory Disorders	159	4.60	0.05	47	4.34	0.09	39	4.10	0.11
221	Respiratory Interventions	161	4.65	0.05	26	4.38	0.18	26	4.38	0.12
222	Responses to Life-threatening Situations	158	4.78	0.04	47	4.64	0.08	39	4.64	0.09
223	Restraint Alternatives	163	3.91	0.07	26	3.88	0.20	24	4.00	0.18
224	Restraints	159	3.77	0.09	47	4.26	0.10	39	3.67	0.18
225	Rights of Medication Administration	163	4.71	0.04	26	4.73	0.13	26	4.62	0.14
226	Risk Tools	160	4.03	0.08	47	3.81	0.13	38	3.71	0.14
227	Safe Health Care Environment	162	4.55	0.05	26	4.42	0.16	25	4.32	0.11
228	Safe Health Care Practice	160	4.56	0.05	47	4.38	0.10	38	4.05	0.15
229	Safety Checks	163	4.52	0.06	26	4.46	0.15	26	4.31	0.12
230	School Age Client Care	160	3.62	0.09	47	3.38	0.11	38	3.13	0.16
231	Scope of Practice	162	4.62	0.05	26	4.65	0.12	26	4.62	0.11
232	Seclusion	159	3.69	0.09	47	3.77	0.14	38	3.39	0.16
233	Sensory/Perceptual Alterations	163	4.02	0.06	26	3.85	0.18	26	3.77	0.17
234	Sequential Compression Devices	159	4.02	0.08	47	3.89	0.10	38	3.39	0.17
235	Shift Report, Hand-off	163	4.38	0.05	26	4.27	0.17	26	4.08	0.12
236	Skin Care	161	4.38	0.06	47	4.40	0.08	38	4.11	0.11
237	Skin Integrity	163	4.45	0.05	26	4.12	0.19	26	4.35	0.12
238	Sleep Hygiene	160	3.90	0.08	47	3.72	0.10	38	3.61	0.14
239	Specialty Diet	163	4.07	0.07	25	3.84	0.20	26	3.85	0.15
240	Specimen Collection	161	4.30	0.06	47	4.00	0.11	38	4.08	0.10
241	Spiritual Awareness	163	3.65	0.08	26	3.77	0.18	26	3.50	0.16
242	Staff Competency	159	4.30	0.07	47	4.23	0.10	38	4.32	0.13
243	Staff Education	163	4.17	0.06	26	3.69	0.19	26	3.77	0.14
244	Staff Safety	158	4.53	0.06	47	4.47	0.10	38	4.45	0.11
245	Standard/Universal Precautions	162	4.51	0.05	26	4.81	0.08	26	4.46	0.13
246	Standardized Orders	161	4.24	0.06	47	3.96	0.11	38	3.87	0.11
247	Standardized Pain Scales	163	4.02	0.06	26	4.35	0.14	26	4.08	0.15
248	Standards of Care	160	4.43	0.05	47	4.40	0.08	38	4.45	0.10
249	Staple Removal	163	3.51	0.09	26	2.85	0.21	26	3.15	0.21
250	Sterile Technique	160	4.68	0.05	47	4.55	0.08	38	4.66	0.09
251	Stressful Life Events	162	3.77	0.08	26	3.96	0.17	26	3.50	0.17

Table 9. Knowledge Statement Importance Ratings

Survey Position #	Knowledge Statements	Newly Licensed LPN/VN			LPN/VN Educator			LPN/VN Supervisor		
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.
252	Substance Abuse Disorder	160	4.13	0.07	47	3.87	0.13	38	3.63	0.13
253	Substance Withdrawal	163	4.10	0.08	26	3.92	0.17	26	3.85	0.15
254	Supervision/Monitoring of Assistive Personnel	160	4.11	0.07	47	4.00	0.10	37	3.78	0.15
255	Supervision/Monitoring of Tasks Assigned	162	4.02	0.07	26	4.12	0.15	26	3.92	0.17
256	Support Systems	160	3.99	0.08	47	3.83	0.11	38	3.74	0.13
257	Surgical Procedure	162	3.98	0.09	26	3.27	0.24	26	3.50	0.23
258	Suture Removal	159	3.79	0.08	46	3.41	0.16	38	3.39	0.18
259	Therapeutic Communication	163	4.17	0.06	26	4.54	0.11	26	3.96	0.13
260	Therapeutic Environment	159	3.94	0.08	47	3.91	0.11	37	3.57	0.13
261	Time Management Skills/Techniques	163	4.23	0.06	26	4.38	0.16	26	4.04	0.16
262	Tracheostomy	160	4.35	0.07	47	4.04	0.13	38	3.71	0.19
263	Transfer Assistive Devices	163	3.96	0.07	26	3.85	0.21	26	3.69	0.14
264	Transfer Process	161	4.06	0.07	47	3.72	0.10	38	3.79	0.14
265	Transfusion Reaction	161	4.44	0.08	26	4.04	0.25	26	3.92	0.22
266	Treatment Barriers	159	4.06	0.07	47	3.83	0.09	38	3.68	0.13
267	Urinary Catheter Maintenance	163	4.28	0.06	26	3.96	0.20	26	4.00	0.18
268	Urinary Retention	161	4.42	0.06	47	4.19	0.11	38	3.79	0.13
269	Usage of Social Media Related to Client Information	163	3.70	0.11	26	4.08	0.23	26	3.38	0.24
270	Usage of Social Media with Respect to Client Information	159	4.07	0.09	46	4.15	0.14	38	4.24	0.14
271	Validation Therapy	163	3.63	0.08	26	3.38	0.24	26	3.12	0.19
272	Venipuncture	159	4.07	0.09	47	3.64	0.13	38	3.92	0.15
273	Ventilator	163	4.17	0.09	26	3.04	0.25	26	3.38	0.27
274	Visual Impairment	158	4.03	0.07	47	3.83	0.11	38	3.58	0.13
275	Vital Signs	163	4.69	0.04	26	4.69	0.11	26	4.58	0.10
276	Warming Measures	160	3.94	0.09	47	3.70	0.14	38	3.61	0.14
277	Wound Drainage Device Removal	163	4.01	0.08	26	3.23	0.28	26	3.42	0.22
278	Wound Dressing Change	161	4.45	0.06	47	4.15	0.11	38	4.13	0.13
279	Wound Irrigation	162	4.01	0.08	26	3.73	0.20	26	3.46	0.19
280	Wound Types	160	4.41	0.06	47	3.98	0.10	38	4.05	0.13

Facility

The average importance ratings of the knowledge statements of responders from hospitals, long-term care facilities, community-based facilities and other facilities were cross-analyzed for meaningful differences.

“Ear irrigation” was rated as the least important knowledge statement by responders from hospitals and community-based facilities (averages of 2.67 and 3.22, respectively). “Group session” was rated the least important knowledge statement by responders from

long-term care (averages of 3.08). “Nose irrigation” was rated the least important knowledge statement by responders from hospitals and other facilities (averages of 2.67 and 2.92, respectively). The most important knowledge statement for responders working in hospitals was “medication administration safety” with an average rating of 4.90. For long-term care facilities, the most important knowledge statement for responders was “client safety” with an average rating of 4.83. In community-based facilities the most important knowledge statement was “cardiopulmonary resuscitation” with an average rating of 4.88. In other facilities “adverse events” was the most important knowledge statement with an average rating of 4.96. Average importance values for all knowledge statements by facilities are listed in [Appendix H](#).

Summary

Responders to the 2021 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.

Conclusions

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.

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APPENDIX A: SUBJECT MATTER EXPERT PANEL

Member: Bianca Albertini, BSN, RN

Board: Maryland Board of Nursing

Specialty: Emergency Room, Trauma

Albertini has 10 years of nursing experience and is currently a registered nurse at a hospital where she precepts new graduate nurses coming into the emergency department. She also teaches classes to the new graduate nurses and sits on the panel responsible for hiring oncoming new graduate into the department.

Member: Adam Canary, LN, LNHA, BaEcon

Board: Washington State Nursing Care Quality Assurance Commission

Specialty: Geriatrics

Canary has 10 years of nursing experience and is currently a nursing home administrator at a skilled nursing facility where he hires, trains and oversees entry-level LPN/VNs.

Member: June Dumaguet, MSN, RN, NE-BC

Board: California Board of Vocational Nursing and Psychiatric Technicians

Specialty: Critical Care, Nursing Leadership, Nursing Administration, Education

Dumaguet has 12 years of nursing experience and is currently a chief clinical officer in a Long-term Acute Care Hospital (LTACH). She hires entry-level LPN/VNs into their graduate program and also works with LPN/VN students completing their rotations in their hospitals.

Member: Beverley Nutall, LVN

Board: Texas Board of Nursing

Specialty: Pediatric Nursing

Nutall has 30 years of nursing experience and is currently a triage nurse at a pediatric office. She is responsible for training the newly hired LPN/VNs with less than 12 months of experience.

Member: Carlita Vasser, MA, BSN, RN

Board: Missouri State Board of Nursing

Specialty: Home Health, Home Care, Geriatric Care, Community Health

Vasser has 25 years of nursing experience and is currently a director of nursing at a home care facility. She provides training to entry-level LPN/VNs on patient care in the home care/home health setting.

Member: Chengyi Wang, MSN, RN, WCC, OMS

Board: Ohio Board of Nursing

Specialty: Long-term Care

Wang has 16 years of nursing experience and is currently a wound care and product specialist at a long-term care facility. She teaches newly hired LPN/VNs on how to conduct a comprehensive assessment and to manage complicated wounds in the long-term care setting.

APPENDIX B: 2021 LPN/VN NURSING KNOWLEDGE SURVEY

Web Form 1

PN KSA F-1



NCSBN
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Licensed Practical/Vocational (LPN) Nursing Survey - Form 1 KSA 2021 F-1

INSTRUCTIONS

This survey is being performed by the National Council of State Boards of Nursing (NCSBN®) on behalf of your nursing regulatory body. The survey is part of a comprehensive study of the practice of newly licensed practical/vocational nurses (LPN/VNs) in the NCSBN areas using the NCLEX® Examination for primary licensure decisions. Please complete this form as soon as possible. This is your opportunity to contribute to the development of the NCLEX examination that future candidates will take.

Please read each question carefully and respond by selecting the option that most closely represents your answer. Choose the answer that **best** applies to your practice and select the appropriate response(s). A few questions ask you to write in information. Type your answer in the space provided.

As used in this survey, the "**client**" can be an individual, family, or group which includes significant others and population. "Clients" are the same as "residents" or "patients." Your answers will be kept confidential and your individual responses to the questions will not be released.



NCSBN
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Licensed Practical/Vocational (LPN) Nursing Survey - Form 1 KSA 2021 F-1

INTRODUCTION

1. What type(s) of nursing license do you hold? **Select all that apply.**

- Licensed Practical Nurse/Vocational Nurse (LPN/VN)
- Registered Nurse (RN)
- Advanced Practice Registered Nurse (APRN)

2. **Select only one.** I am primarily:

- Newly licensed LPN/VN
- Nurse faculty
- Nurse supervisor/director

3. How long have you been in the position you selected in question 2? For newly licensed LPN/VNs, how long since you completed course requirements in your nursing program?

	Years		Months
Please provide years and months.	<input type="text"/>		<input type="text"/>



Licensed Practical/Vocational (LPN) Nursing Survey - Form 1 KSA 2021 F-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.

4. **QUESTION – IMPORTANCE:** Regardless of specific practice setting, how important is the possession of this knowledge by a newly licensed LPN/VN for safe and effective professional practice?

1 = Not Important, 2 = Minimally Important, 3 = Moderately Important, 4 = Important, 5 = Critically Important.

	Importance
1. Abuse prevention	<input type="text"/>
2. Activities of daily living	<input type="text"/>
3. Adaptive devices	<input type="text"/>
4. Adult client care	<input type="text"/>
5. Adverse events	<input type="text"/>
6. Allergic reactions	<input type="text"/>
7. Antepartum client	<input type="text"/>
8. Aseptic technique	<input type="text"/>
9. Assistive devices	<input type="text"/>
10. Available resources	<input type="text"/>
11. Basic cardiac abnormalities	<input type="text"/>
12. Behavioral management	<input type="text"/>
13. Bladder irrigation	<input type="text"/>
14. Bladder palpation technique	<input type="text"/>
15. Blood product	<input type="text"/>
16. Body mechanics	<input type="text"/>
17. Cardiopulmonary resuscitation	<input type="text"/>
18. Care plan	<input type="text"/>
19. Central venous catheter management	<input type="text"/>
20. Chemical dependency	<input type="text"/>
21. Chronic illness	<input type="text"/>
22. Client advocacy	<input type="text"/>
23. Client autonomy	<input type="text"/>
24. Client care prioritization	<input type="text"/>
25. Client communication	<input type="text"/>
26. Client condition	<input type="text"/>
27. Client disease processes and conditions	<input type="text"/>
28. Client equipment	<input type="text"/>
29. Client health history	<input type="text"/>

30. Client identification	<input type="text"/>
31. Client in labor	<input type="text"/>
32. Client limitations	<input type="text"/>
33. Client medication history	<input type="text"/>
34. Client mental status	<input type="text"/>
35. Client observation	<input type="text"/>
36. Client psychosocial needs	<input type="text"/>
37. Client risk identification	<input type="text"/>
38. Client self-advocacy	<input type="text"/>
39. Client stressors	<input type="text"/>
40. Client weight	<input type="text"/>
41. Code of ethics	<input type="text"/>
42. Comfort measures	<input type="text"/>
43. Communication skills	<input type="text"/>
44. Compression stockings	<input type="text"/>
45. Confidentiality and privacy laws	<input type="text"/>
46. Continuity of care	<input type="text"/>
47. Cooling measures	<input type="text"/>
48. Cost effective care	<input type="text"/>
49. Cultural competency	<input type="text"/>
50. De-escalation techniques	<input type="text"/>
51. Developmental stages	<input type="text"/>
52. Diagnostic test results	<input type="text"/>
53. Disaster drills	<input type="text"/>
54. Documentation	<input type="text"/>
55. Ear irrigation	<input type="text"/>
56. Electronic medical records (EMR)	<input type="text"/>
57. Emergency procedures	<input type="text"/>
58. Enteral tube types	<input type="text"/>
59. Evidence-based practice	<input type="text"/>
60. Eye irrigation	<input type="text"/>
61. Fetal heart monitoring	<input type="text"/>
62. Fluid balance	<input type="text"/>
63. Follow-up with clients	<input type="text"/>
64. Gender identity	<input type="text"/>
65. Grieving process	<input type="text"/>
66. Health care provider's orders	<input type="text"/>
67. Health screening programs	<input type="text"/>
68. Hemodialysis	<input type="text"/>
69. Hyperglycemia	<input type="text"/>
70. Hypoxia	<input type="text"/>
71. Incident report	<input type="text"/>

72. Infant care	<input type="text"/>
73. Informed consent	<input type="text"/>
74. Interdisciplinary collaboration	<input type="text"/>
75. Interdisciplinary roles and responsibilities	<input type="text"/>
76. Intervention implementation	<input type="text"/>
77. Interventions to life-threatening situations	<input type="text"/>
78. Intravenous complications	<input type="text"/>
79. Intravenous site maintenance	<input type="text"/>
80. Isolation precautions	<input type="text"/>
81. Laboratory values	<input type="text"/>
82. Life transitions	<input type="text"/>
83. Measurement conversions	<input type="text"/>
84. Medical procedures	<input type="text"/>
85. Medication administration routes	<input type="text"/>
86. Medication administration safety	<input type="text"/>
87. Medication history	<input type="text"/>
88. Mental health disorders	<input type="text"/>
89. Narcotics/controlled substances	<input type="text"/>
90. Nasogastric tube types	<input type="text"/>
91. Newborn client care	<input type="text"/>
92. Nose irrigation	<input type="text"/>
93. Nutritional norms	<input type="text"/>
94. Ostomy types	<input type="text"/>
95. Pacemaker	<input type="text"/>
96. Pain scales	<input type="text"/>
97. Peripheral intravenous catheter removal	<input type="text"/>
98. Personal biases	<input type="text"/>
99. Physical data norms	<input type="text"/>
100. Policies and procedures	<input type="text"/>



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Licensed Practical/Vocational (LPN) Nursing Survey - Form 1 KSA 2021 F-1

KNOWLEDGE STATEMENTS

QUESTION – IMPORTANCE: Regardless of specific practice setting, how important is the possession of this knowledge by a newly licensed LPN/VN for safe and effective professional practice?

1 = Not Important, 2 = Minimally Important, 3 = Moderately Important, 4 = Important, 5 = Critically Important.

	Importance
101. Postpartum client	<input type="text"/>
102. Prenatal complication	<input type="text"/>
103. Preventative care	<input type="text"/>
104. Professional accountability	<input type="text"/>
105. Professional development	<input type="text"/>
106. Psychological evaluation	<input type="text"/>
107. Quality improvement	<input type="text"/>
108. Referral	<input type="text"/>
109. Relaxation techniques	<input type="text"/>
110. Resources	<input type="text"/>
111. Respiratory interventions	<input type="text"/>
112. Restraint alternatives	<input type="text"/>
113. Rights of medication administration	<input type="text"/>
114. Safe health care environment	<input type="text"/>
115. Safety checks	<input type="text"/>
116. Scope of practice	<input type="text"/>
117. Sensory/perceptual alterations	<input type="text"/>
118. Shift report, hand-off	<input type="text"/>
119. Skin integrity	<input type="text"/>
120. Specialty diet	<input type="text"/>
121. Spiritual awareness	<input type="text"/>
122. Staff education	<input type="text"/>
123. Standard/universal precautions	<input type="text"/>
124. Standardized pain scales	<input type="text"/>
125. Staple removal	<input type="text"/>
126. Stressful life events	<input type="text"/>
127. Substance withdrawal	<input type="text"/>
128. Supervision/monitoring of tasks assigned	<input type="text"/>
129. Surgical procedure	<input type="text"/>
130. Therapeutic communication	<input type="text"/>
131. Time management skills/techniques	<input type="text"/>
132. Transfer assistive devices	<input type="text"/>
133. Transfusion reaction	<input type="text"/>
134. Urinary catheter maintenance	<input type="text"/>

135. Usage of social media related to client information	<input type="text"/>
136. Validation therapy	<input type="text"/>
137. Ventilator	<input type="text"/>
138. Vital signs	<input type="text"/>
139. Wound drainage device removal	<input type="text"/>
140. Wound irrigation	<input type="text"/>



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Licensed Practical/Vocational (LPN) Nursing Survey - Form 1 KSA 2021 F-1

5. 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

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

Instructions for Newly Licensed LPN/VNs: Choose the following clinical setting or practice area that most accurately describes where you work.

Instructions for Nurse Faculty: 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.

7. Which of the following **best** describes your area of practice? **Select all that apply.**

- Well clients, possibly with minor illnesses
 Clients with stable chronic conditions
 Clients with unstable chronic conditions
 Clients with acute conditions, including clients with medical, surgical, obstetrical or critical conditions
 Clients at end-of-life
 Clients with behavioral/emotional conditions
 Other, please specify:

8. Which of the following **best** describes the ages of **most** of your clients on the last day you worked? **Select all that apply.**

- Pediatric (ages 0 -17)
 Adult (ages 18-64)
 Adult (ages 65-85)
 Adult (over age 85)

9. Which of the following choices **best** describes your employment setting/specialty area **on the last day you worked**? If you worked mainly in one setting, select the appropriate choice for that one setting. If you worked in more than one setting, select the appropriate choices for all settings where you spent at least one-half of your time. **Select no more than TWO answers.**

- Critical care
- Inpatient medical-surgical
- Labor and delivery
- Operating room
- Pediatric
- Ambulatory care, physician office or clinics
- Home health
- Hospice
- Long-term care
- Palliative care
- Rehabilitation
- Residential
- Psychiatry or sub-specialties (detox, inpatient, outpatient)
- Public health/Occupational health
- Other, please specify:

10. 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 facility
- Community-based or ambulatory care facility/organization (including public health department, home health, clinic, school, prison, etc.)
- Other, please specify:

11. What is your gender?

- Male
- Female
- Prefer to self-describe:

12. What is your age in years?

13. Which of the following **best** describes your racial/ethnic background? (**Select only one**)

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino
- Native Hawaiian or Pacific Islander
- White – not of Hispanic origin
- Other

14. What is your primary language?

- English
- English and another language
- Another language

15. What is the highest degree completed that led to your current position? **Select only one.**

- 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 Master's degree in U.S.
- RN - Master's Degree in U.S. (non-Advanced Practice Nurse)
- RN - Master's Degree in U.S. (Advanced Practice Nurse)
- RN - Doctorate Degree in U.S. (non-DNP)
- RN - Doctorate Degree in U.S. (DNP)
- Any nursing program NOT located in the U.S.
- In progress to complete an Advanced Degree in nursing
- Other program, please specify:

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

17. Name:

18. Daytime or early evening phone number with area code:

19. Email address:

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

Web Form 2



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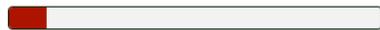
Licensed Practical/Vocational (LPN) Nursing Survey - Form 2 KSA 2021 F-2

INSTRUCTIONS

This survey is being performed by the National Council of State Boards of Nursing (NCSBN®) on behalf of your nursing regulatory body. The survey is part of a comprehensive study of the practice of newly licensed practical/vocational nurses (LPN/VNs) in the NCSBN areas using the NCLEX® Examination for primary licensure decisions. Please complete this form as soon as possible. This is your opportunity to contribute to the development of the NCLEX examination that future candidates will take.

Please read each question carefully and respond by selecting the option that most closely represents your answer. Choose the answer that **best** applies to your practice and select the appropriate response(s). A few questions ask you to write in information. Type your answer in the space provided.

As used in this survey, the "**client**" can be an individual, family, or group which includes significant others and population. "Clients" are the same as "residents" or "patients." Your answers will be kept confidential and your individual responses to the questions will not be released.

 10%

[Continue to the Next Page](#)



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Licensed Practical/Vocational (LPN) Nursing Survey - Form 2 KSA 2021 F-2

INTRODUCTION

1. What type(s) of nursing license do you hold? **Select all that apply.**

- Licensed Practical Nurse/Vocational Nurse (LPN/VN)
- Registered Nurse (RN)
- Advanced Practice Registered Nurse (APRN)

2. **Select only one.** I am primarily:

- Newly licensed LPN/VN
- Nurse faculty
- Nurse supervisor/director

3. How long have you been in the position you selected in question 2? For newly licensed LPN/VNs, how long since you completed course requirements in your nursing program?

	Years		Months
Please provide years and months.	<input type="text"/>		<input type="text"/>



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Licensed Practical/Vocational (LPN) Nursing Survey - Form 2 KSA 2021 F-2

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.

4. **QUESTION – IMPORTANCE:** Regardless of specific practice setting, how important is the possession of this knowledge by a newly licensed LPN/VN for safe and effective professional practice?

1 = Not Important, 2 = Minimally Important, 3 = Moderately Important, 4 = Important, 5 = Critically Important.

	Importance
1. Active listening	<input type="text"/>
2. Acute illness	<input type="text"/>
3. Adolescent client care	<input type="text"/>
4. Advance directive	<input type="text"/>
5. Adverse reactions	<input type="text"/>
6. Alternative/complementary therapy	<input type="text"/>
7. Appropriate resources	<input type="text"/>
8. Aspiration precautions	<input type="text"/>
9. Assistive devices for medication administration	<input type="text"/>
10. Barriers to learning	<input type="text"/>
11. Behavioral disorders	<input type="text"/>
12. Behavioral management techniques	<input type="text"/>
13. Bladder management protocol	<input type="text"/>
14. Blood glucose monitoring	<input type="text"/>
15. Blood product transfusion	<input type="text"/>
16. Bowel management protocol	<input type="text"/>
17. Care of toddler client through two years	<input type="text"/>
18. Central venous catheter	<input type="text"/>
19. Chain of command	<input type="text"/>
20. Chemical toxicity	<input type="text"/>
21. Circulatory checks	<input type="text"/>
22. Client allergies	<input type="text"/>
23. Client baseline data	<input type="text"/>
24. Client cognitive ability	<input type="text"/>
25. Client complication	<input type="text"/>
26. Client consent	<input type="text"/>

27. Client education	<input type="text"/>
28. Client evaluation	<input type="text"/>
29. Client history	<input type="text"/>
30. Client identification methods	<input type="text"/>
31. Client knowledge deficit	<input type="text"/>
32. Client literacy	<input type="text"/>
33. Client mental competency	<input type="text"/>
34. Client nutrition	<input type="text"/>
35. Client privacy	<input type="text"/>
36. Client rights	<input type="text"/>
37. Client safety	<input type="text"/>
38. Client spiritual beliefs	<input type="text"/>
39. Client vital signs	<input type="text"/>
40. Client-centered care	<input type="text"/>
41. Cognitive impairment	<input type="text"/>
42. Communication barriers	<input type="text"/>
43. Community resources	<input type="text"/>
44. Confidentiality	<input type="text"/>
45. Conflict resolution	<input type="text"/>
46. Continuous suction of nasogastric tube	<input type="text"/>
47. Coping mechanisms	<input type="text"/>
48. Critical thinking	<input type="text"/>
49. Data collection	<input type="text"/>
50. Delegation	<input type="text"/>
51. Diagnostic test procedures	<input type="text"/>
52. Diagnostic values	<input type="text"/>
53. Discharge process	<input type="text"/>
54. Drainage device	<input type="text"/>
55. Electrocardiogram	<input type="text"/>
56. Emergency preparedness	<input type="text"/>
57. Enteral tube management	<input type="text"/>
58. Environmental factors	<input type="text"/>
59. Evidence-based practice resources	<input type="text"/>

60. Feeding formula types	<input type="text"/>
61. Fluid and electrolyte imbalance	<input type="text"/>
62. Follow up care accessibility	<input type="text"/>
63. Functional status	<input type="text"/>
64. Geriatric client care	<input type="text"/>
65. Group session	<input type="text"/>
66. Health promotion programs	<input type="text"/>
67. Hearing impairment	<input type="text"/>
68. High risk behaviors	<input type="text"/>
69. Hypoglycemia	<input type="text"/>
70. Immunizations	<input type="text"/>
71. Incision care	<input type="text"/>
72. Infection control	<input type="text"/>
73. Intake/output	<input type="text"/>
74. Interdisciplinary communication	<input type="text"/>
75. Intermittent suction of nasogastric tube	<input type="text"/>
76. Intervention techniques	<input type="text"/>
77. Interviewing skills	<input type="text"/>
78. Intravenous piggyback medication	<input type="text"/>
79. Invasive procedures	<input type="text"/>
80. Laboratory test results	<input type="text"/>
81. Learning barriers	<input type="text"/>
82. Mandatory reporting	<input type="text"/>
83. Medical equipment	<input type="text"/>
84. Medication	<input type="text"/>
85. Medication administration rights	<input type="text"/>
86. Medication administration calculations	<input type="text"/>
87. Medication reconciliation	<input type="text"/>
88. Mobility needs	<input type="text"/>
89. Nasogastric tube maintenance	<input type="text"/>
90. Neurological checks	<input type="text"/>
91. Non pharmacological interventions	<input type="text"/>
92. Nurse-client relationships	<input type="text"/>
93. Order verification	<input type="text"/>
94. Oxygen saturation monitoring	<input type="text"/>
95. Pain management	<input type="text"/>
96. Peripheral intravenous catheter maintenance	<input type="text"/>
97. Peritoneal dialysis	<input type="text"/>

98. Personal limitations	<input type="text"/>
99. Plan of care	<input type="text"/>
100. Polypharmacy	<input type="text"/>
101. Practice error	<input type="text"/>
102. Preschool client care	<input type="text"/>
103. Privacy practices	<input type="text"/>
104. Professional boundaries	<input type="text"/>
105. Protocols	<input type="text"/>
106. Psychosocial functioning	<input type="text"/>
107. Reality orientation	<input type="text"/>
108. Regulatory/policy compliance	<input type="text"/>
109. Reminiscence therapy	<input type="text"/>
110. Respiratory disorders	<input type="text"/>
111. Responses to life-threatening situations	<input type="text"/>
112. Restraints	<input type="text"/>
113. Risk tools	<input type="text"/>
114. Safe health care practice	<input type="text"/>
115. School age client care	<input type="text"/>
116. Seclusion	<input type="text"/>
117. Sequential compression devices	<input type="text"/>
118. Skin care	<input type="text"/>
119. Sleep hygiene	<input type="text"/>
120. Specimen collection	<input type="text"/>
121. Staff competency	<input type="text"/>
122. Staff safety	<input type="text"/>
123. Standardized orders	<input type="text"/>
124. Standards of care	<input type="text"/>
125. Sterile technique	<input type="text"/>
126. Substance abuse disorder	<input type="text"/>
127. Supervision/monitoring of assistive personnel	<input type="text"/>
128. Support systems	<input type="text"/>
129. Suture removal	<input type="text"/>
130. Therapeutic environment	<input type="text"/>
131. Tracheostomy	<input type="text"/>
132. Transfer process	<input type="text"/>
133. Treatment barriers	<input type="text"/>

134. Urinary retention
135. Usage of social media with respect to client information
136. Venipuncture
137. Visual impairment
138. Warming measures
139. Wound dressing change
140. Wound types



Licensed Practical/Vocational (LPN) Nursing Survey - Form 2 KSA 2021 F-2

5. 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

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



Licensed Practical/Vocational (LPN) Nursing Survey - Form 2 KSA 2021 F-2

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 Faculty: 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.

7. Which of the following **best** describes your area of practice? **Select all that apply.**

- Well clients, possibly with minor illnesses
- Clients with stable chronic conditions
- Clients with unstable chronic conditions
- Clients with acute conditions, including clients with medical, surgical, obstetrical or critical conditions
- Clients at end-of-life
- Clients with behavioral/emotional conditions
- Other, please specify:

8. Which of the following **best** describes the ages of **most** of your clients on the last day you worked? **Select all that apply.**

- Pediatric (ages 0 -17)
- Adult (ages 18-64)
- Adult (ages 65-85)
- Adult (over age 85)

9. Which of the following choices **best** describes your employment setting/specialty area **on the last day you worked**? If you worked in one setting, select the appropriate choice for that one setting. If you worked in more than one setting, select the appropriate choices for a settings where you spent at least one-half of your time. **Select no more than TWO answers.**

- Critical care
- Inpatient medical-surgical
- Labor and delivery
- Operating room
- Pediatric
- Ambulatory care, physician office or clinics
- Home health
- Hospice
- Long-term care
- Palliative care
- Rehabilitation
- Residential
- Psychiatry or sub-specialties (detox, inpatient, outpatient)
- Public health/Occupational health
- Other, please specify:

10. 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 facility
- Community-based or ambulatory care facility/organization (including public health department, home health, clinic, school, prison, etc.)
- Other, please specify:



Licensed Practical/Vocational (LPN) Nursing Survey - Form 2 KSA 2021 F-2

SECTION 3: DEMOGRAPHIC INFORMATION

11. What is your gender?

- Male
 Female
 Prefer to self-describe:

12. What is your age in years?

13. Which of the following **best** describes your racial/ethnic background? (**Select only one**)

- American Indian or Alaska Native
 Asian
 Black or African American
 Hispanic or Latino
 Native Hawaiian or Pacific Islander
 White – not of Hispanic origin
 Other

14. What is your primary language?

- English
 English and another language
 Another language

15. What is the highest degree completed that led to your current position? **Select only one.**

- 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 Master's degree in U.S.
 RN - Master's Degree in U.S. (non-Advanced Practice Nurse)
 RN - Master's Degree in U.S. (Advanced Practice Nurse)
 RN - Doctorate Degree in U.S. (non-DNP)
 RN - Doctorate Degree in U.S. (DNP)
 Any nursing program NOT located in the U.S.
 In progress to complete an Advanced Degree in nursing
 Other program, please specify:



Licensed Practical/Vocational (LPN) Nursing Survey - Form 2 KSA 2021 F-2

SECTION 4: COMMENTS

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

17. Name:

18. Daytime or early evening phone number with area code:

19. Email address:

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

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

Preface: 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?

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
1	Abuse Prevention	6	4.33	0.49
2	Active Listening	6	4.17	0.31
3	Activities of Daily Living	6	3.50	0.43
4	Acute Illness	6	4.33	0.21
5	Adaptive Devices	6	3.50	0.34
6	Adolescent Client Care	6	3.50	0.50
7	Adult Client Care	6	4.17	0.17
8	Advance Directive	6	4.50	0.22
9	Adverse Events	6	4.50	0.34
10	Adverse Reactions	6	4.50	0.34
11	Allergic Reactions	6	4.83	0.17
12	Alternative/Complementary Therapy	6	3.33	0.33
13	Antepartum Client	6	3.67	0.42
14	Appropriate Resources	6	3.67	0.42
15	Aseptic Technique	6	4.50	0.22
16	Aspiration Precautions	6	4.50	0.22
17	Assistive Devices	6	4.17	0.31
18	Assistive Devices for Medication Administration	6	4.33	0.21
19	Available Resources	6	3.50	0.34
20	Barriers to Learning	6	3.67	0.21
21	Basic Cardiac Abnormalities	6	4.33	0.33
22	Behavioral Disorders	6	3.67	0.21
23	Behavioral Management	6	3.50	0.22
24	Behavioral Management Techniques	6	3.50	0.22
25	Bladder Irrigation	6	3.33	0.42
26	Bladder Management Protocol	6	3.17	0.31
27	Bladder Palpation Technique	6	3.17	0.31
28	Blood Glucose Monitoring	6	4.17	0.31
29	Blood Product	6	4.33	0.33
30	Blood Product Transfusion	6	4.33	0.33
31	Body Mechanics	6	3.83	0.31
32	Bowel Management Protocol	6	3.83	0.31

SME Knowledge Statement Ratings Rank Ordered by Average Importance

Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
33	Cardiopulmonary Resuscitation	6	4.67	0.21
34	Care of Toddler Client through Two Years	6	3.17	0.54
35	Care Plan	6	3.17	0.48
36	Central Venous Catheter	6	3.50	0.56
37	Central Venous Catheter Management	6	3.50	0.56
38	Chain of Command	6	4.00	0.26
39	Chemical Dependency	6	3.33	0.33
40	Chemical Toxicity	6	3.33	0.33
41	Chronic Illness	6	4.00	0.26
42	Circulatory Checks	6	4.17	0.31
43	Client Advocacy	6	3.33	0.42
44	Client Allergies	6	4.17	0.40
45	Client Autonomy	6	4.17	0.31
46	Client Baseline Data	6	3.67	0.21
47	Client Care Prioritization	6	3.67	0.42
48	Client Cognitive Ability	6	3.83	0.31
49	Client Communication	6	4.00	0.26
50	Client Complication	6	4.17	0.31
51	Client Condition	6	4.17	0.40
52	Client Consent	6	4.17	0.31
53	Client Disease Processes and Conditions	6	4.50	0.34
54	Client Education	6	3.67	0.21
55	Client Equipment	6	3.67	0.21
56	Client Evaluation	6	3.67	0.42
57	Client Health History	6	4.00	0.26
58	Client History	6	3.50	0.22
59	Client Identification	6	4.50	0.34
60	Client Identification Methods	6	4.33	0.33
61	Client in Labor	6	4.17	0.48
62	Client Knowledge Deficit	6	3.83	0.17
63	Client Limitations	6	3.83	0.17
64	Client Literacy	6	3.83	0.17
65	Client Medication History	6	4.50	0.34
66	Client Mental Competency	6	4.00	0.26
67	Client Mental Status	6	4.17	0.31
68	Client Nutrition	6	4.00	0.26

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
69	Client Observation	6	4.33	0.33
70	Client Privacy	6	3.83	0.31
71	Client Psychosocial Needs	6	4.00	0.26
72	Client Rights	6	4.33	0.21
73	Client Risk Identification	6	4.33	0.33
74	Client Safety	6	4.67	0.21
75	Client Self-advocacy	6	3.83	0.17
76	Client Spiritual Beliefs	6	3.17	0.31
77	Client Stressors	6	3.33	0.21
78	Client Vital Signs	6	4.33	0.33
79	Client Weight	6	3.83	0.31
80	Client-centered Care	6	4.00	0.26
81	Code of Ethics	6	4.17	0.31
82	Cognitive Impairment	6	3.67	0.21
83	Comfort Measures	6	3.50	0.22
84	Communication Barriers	6	3.83	0.40
85	Communication Skills	6	3.67	0.33
86	Community Resources	6	3.17	0.31
87	Compression Stockings	6	3.83	0.40
88	Confidentiality	6	4.17	0.31
89	Confidentiality and Privacy Laws	6	4.33	0.33
90	Conflict Resolution	6	3.50	0.22
91	Continuity of Care	6	3.67	0.21
92	Continuous Suction of Nasogastric Tube	6	3.67	0.21
93	Cooling Measures	6	3.17	0.31
94	Coping Mechanisms	6	3.67	0.33
95	Cost Effective Care	6	3.33	0.49
96	Critical Thinking	6	4.00	0.37
97	Cultural Competency	6	3.83	0.31
98	Data Collection	6	3.67	0.33
99	De-escalation Techniques	6	3.83	0.17
100	Delegation	6	3.83	0.17
101	Developmental Stages	6	3.83	0.31
102	Diagnostic Test Procedures	6	4.17	0.17
103	Diagnostic Test Results	6	4.17	0.31
104	Diagnostic Values	6	4.00	0.26

SME Knowledge Statement Ratings Rank Ordered by Average Importance

Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
105	Disaster Drills	6	3.50	0.34
106	Discharge Process	6	3.33	0.33
107	Documentation	6	4.67	0.21
108	Drainage Device	6	4.17	0.31
109	Ear Irrigation	6	3.50	0.43
110	Electrocardiogram	6	4.17	0.31
111	Electronic Medical Records (EMR)	6	3.83	0.31
112	Emergency Preparedness	6	3.83	0.31
113	Emergency Procedures	6	3.83	0.31
114	Enteral Tube Management	6	4.17	0.31
115	Enteral Tube Types	6	4.17	0.31
116	Environmental Factors	6	3.17	0.31
117	Evidence-based Practice	6	3.67	0.42
118	Evidence-based Practice Resources	6	3.50	0.34
119	Eye Irrigation	6	3.67	0.42
120	Feeding Formula Types	6	4.17	0.31
121	Fetal Heart Monitoring	6	4.00	0.52
122	Fluid and Electrolyte Imbalance	6	4.50	0.34
123	Fluid Balance	6	4.33	0.33
124	Follow-up Care Accessibility	6	3.83	0.17
125	Follow-up with Clients	6	3.17	0.40
126	Functional Status	6	3.67	0.42
127	Gender Identity	6	3.17	0.54
128	Geriatric Client Care	6	4.33	0.21
129	Grieving Process	6	3.83	0.17
130	Group Session	6	3.17	0.48
131	Health Care Provider's Orders	6	4.33	0.33
132	Health Promotion Programs	6	3.17	0.31
133	Health Screening Programs	6	3.17	0.31
134	Hearing Impairment	6	3.83	0.31
135	Hemodialysis	6	4.00	0.37
136	High Risk Behaviors	6	3.50	0.22
137	Hyperglycemia	6	4.33	0.33
138	Hypoglycemia	6	4.17	0.31
139	Hypoxia	6	4.17	0.31
140	Immunizations	6	3.67	0.49

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
141	Incident Report	6	4.17	0.31
142	Incision Care	6	4.17	0.31
143	Infant Care	6	3.83	0.48
144	Infection Control	6	4.50	0.22
145	Informed Consent	6	4.33	0.33
146	Intake/Output	6	4.00	0.26
147	Interdisciplinary Collaboration	6	3.33	0.21
148	Interdisciplinary Communication	6	3.50	0.22
149	Interdisciplinary Roles and Responsibilities	6	3.50	0.22
150	Intermittent Suction of Nasogastric Tube	6	3.83	0.31
151	Intervention Implementation	6	3.67	0.21
152	Intervention Techniques	6	3.67	0.21
153	Interventions to Life-threatening Situations	6	4.50	0.22
154	Interviewing Skills	6	3.00	0.26
155	Intravenous Complications	6	4.17	0.31
156	Intravenous Piggyback Medication	6	4.17	0.31
157	Intravenous Site Maintenance	6	4.17	0.31
158	Invasive Procedures	6	4.17	0.40
159	Isolation Precautions	6	4.50	0.34
160	Laboratory Test Results	6	4.17	0.31
161	Laboratory Values	6	4.00	0.45
162	Learning Barriers	6	3.83	0.31
163	Life Transitions	6	3.67	0.33
164	Mandatory Reporting	6	4.50	0.22
165	Measurement Conversions	6	3.33	0.56
166	Medical Equipment	6	3.67	0.21
167	Medical Procedures	6	3.83	0.17
168	Medication	6	4.50	0.34
169	Medication Administration Routes	6	4.50	0.34
170	Medication Administration Rights	6	4.67	0.21
171	Medication Administration Safety	6	4.67	0.21
172	Medication Administration Calculations	6	4.67	0.21
173	Medication History	6	3.83	0.31
174	Medication Reconciliation	6	3.83	0.31
175	Mental Health Disorders	6	3.83	0.17
176	Mobility Needs	6	3.83	0.17

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
177	Narcotics/Controlled Substances	6	4.17	0.31
178	Nasogastric Tube Maintenance	6	4.17	0.31
179	Nasogastric Tube Types	6	4.33	0.33
180	Neurological Checks	6	4.50	0.34
181	Newborn Client Care	6	4.00	0.37
182	Non Pharmacological Interventions	6	3.67	0.21
183	Nose Irrigation	6	3.50	0.43
184	Nurse-Client Relationships	6	3.50	0.22
185	Nutritional Norms	6	3.67	0.21
186	Order Verification	6	4.50	0.22
187	Ostomy Types	6	4.17	0.40
188	Oxygen Saturation Monitoring	6	4.67	0.21
189	Pacemaker	6	4.17	0.31
190	Pain Management	6	4.33	0.21
191	Pain Scales	6	4.17	0.17
192	Peripheral Intravenous Catheter Maintenance	6	4.00	0.37
193	Peripheral Intravenous Catheter Removal	6	3.67	0.33
194	Peritoneal Dialysis	6	3.83	0.31
195	Personal Biases	6	3.83	0.40
196	Personal Limitations	6	3.67	0.33
197	Physical Data Norms	6	3.83	0.31
198	Plan of Care	6	3.67	0.21
199	Policies and Procedures	6	4.50	0.22
200	Polypharmacy	6	4.50	0.22
201	Postpartum Client	6	3.83	0.31
202	Practice Error	6	4.33	0.33
203	Prenatal Complication	6	3.83	0.40
204	Preschool Client Care	6	3.50	0.43
205	Preventative Care	6	3.67	0.21
206	Privacy Practices	6	3.83	0.31
207	Professional Accountability	6	4.33	0.33
208	Professional Boundaries	6	4.17	0.31
209	Professional Development	6	3.83	0.31
210	Protocols	6	4.00	0.26
211	Psychological Evaluation	6	3.33	0.33
212	Psychosocial Functioning	6	3.17	0.31

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
213	Quality Improvement	6	3.00	0.26
214	Reality Orientation	6	3.33	0.56
215	Referral	6	3.00	0.45
216	Regulatory/Policy Compliance	6	4.17	0.31
217	Relaxation Techniques	6	3.00	0.37
218	Reminiscence Therapy	6	2.83	0.31
219	Resources	6	3.33	0.33
220	Respiratory Disorders	6	4.33	0.33
221	Respiratory Interventions	6	4.50	0.34
222	Responses to Life-threatening Situations	6	4.50	0.34
223	Restraint Alternatives	6	4.00	0.26
224	Restraints	6	4.17	0.31
225	Rights of Medication Administration	6	4.67	0.21
226	Risk Tools	6	3.67	0.33
227	Safe Health Care Environment	6	3.67	0.21
228	Safe Health Care Practice	6	4.00	0.26
229	Safety Checks	6	4.00	0.26
230	School Age Client Care	6	3.50	0.43
231	Scope of Practice	6	4.67	0.21
232	Seclusion	6	3.67	0.33
233	Sensory/Perceptual Alterations	6	3.67	0.33
234	Sequential Compression Devices	6	3.83	0.31
235	Shift Report, Hand-off	6	4.17	0.17
236	Skin Care	6	3.67	0.33
237	Skin Integrity	6	4.33	0.21
238	Sleep Hygiene	6	3.83	0.31
239	Specialty Diet	6	3.67	0.33
240	Specimen Collection	6	4.00	0.26
241	Spiritual Awareness	6	3.17	0.31
242	Staff Competency	6	4.00	0.26
243	Staff Education	6	4.17	0.17
244	Staff Safety	6	4.33	0.21
245	Standard/Universal Precautions	6	4.17	0.31
246	Standardized Orders	6	4.17	0.31
247	Standardized Pain Scales	6	4.17	0.31
248	Standards of Care	6	4.33	0.33

SME Knowledge Statement Ratings Rank Ordered by Average Importance				
Survey Position #	Knowledge Statements	SME Ratings		
		N	Avg.	Std. Err.
249	Staple Removal	6	3.67	0.33
250	Sterile Technique	6	4.50	0.22
251	Stressful Life Events	6	3.17	0.31
252	Substance Abuse Disorder	6	3.67	0.42
253	Substance Withdrawal	6	4.00	0.45
254	Supervision/Monitoring of Assistive Personnel	6	3.50	0.22
255	Supervision/Monitoring of Tasks Assigned	6	3.50	0.22
256	Support Systems	6	3.50	0.22
257	Surgical Procedure	6	4.00	0.37
258	Suture Removal	6	3.83	0.31
259	Therapeutic Communication	6	3.50	0.22
260	Therapeutic Environment	6	3.50	0.22
261	Time Management Skills/Techniques	6	3.67	0.21
262	Tracheostomy	6	4.00	0.37
263	Transfer Assistive Devices	6	4.33	0.33
264	Transfer Process	6	4.33	0.33
265	Transfusion Reaction	6	4.50	0.22
266	Treatment Barriers	6	3.83	0.31
267	Urinary Catheter Maintenance	6	4.00	0.26
268	Urinary Retention	6	4.17	0.31
269	Usage of Social Media Related to Client Information	6	3.00	0.58
270	Usage of Social Media with Respect to Client Information	6	3.50	0.34
271	Validation Therapy	6	3.33	0.21
272	Venipuncture	6	3.83	0.31
273	Ventilator	6	4.17	0.31
274	Visual Impairment	6	4.00	0.26
275	Vital Signs	6	4.33	0.21
276	Warming Measures	6	3.83	0.31
277	Wound Drainage Device Removal	6	4.00	0.37
278	Wound Dressing Change	6	3.83	0.31
279	Wound Irrigation	6	3.83	0.31
280	Wound Types	6	4.17	0.31

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

Preface: 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?

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/VN			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
74	Client Safety	252	4.81	0.03	6	4.67	0.21	0.14
168	Medication	190	4.81	0.03	6	4.50	0.34	0.31
144	Infection Control	188	4.79	0.03	6	4.50	0.22	0.29
171	Medication Administration Safety	203	4.79	0.03	6	4.67	0.21	0.12
222	Responses to Life-threatening Situations	158	4.78	0.04	6	4.50	0.34	0.28
33	Cardiopulmonary Resuscitation	267	4.77	0.04	6	4.67	0.21	0.10
11	Allergic Reactions	270	4.75	0.03	6	4.83	0.17	-0.08
44	Client Allergies	254	4.75	0.03	6	4.17	0.40	0.58
138	Hypoglycemia	191	4.73	0.04	6	4.17	0.31	0.56
2	Active Listening	259	4.71	0.03	6	4.17	0.31	0.54
139	Hypoxia	203	4.71	0.04	6	4.17	0.31	0.54
225	Rights of Medication Administration	163	4.71	0.04	6	4.67	0.21	0.04
10	Adverse Reactions	257	4.70	0.03	6	4.50	0.34	0.20
170	Medication Administration Rights	189	4.70	0.05	6	4.67	0.21	0.03
16	Aspiration Precautions	255	4.69	0.05	6	4.50	0.22	0.19
78	Client Vital Signs	254	4.69	0.03	6	4.33	0.33	0.36
275	Vital Signs	163	4.69	0.04	6	4.33	0.21	0.36
250	Sterile Technique	160	4.68	0.05	6	4.50	0.22	0.18
96	Critical Thinking	255	4.67	0.04	6	4.00	0.37	0.67
107	Documentation	203	4.67	0.04	6	4.67	0.21	0.00
15	Aseptic Technique	270	4.66	0.04	6	4.50	0.22	0.16
59	Client Identification	264	4.66	0.04	6	4.50	0.34	0.16
172	Medication Administration Calculations	188	4.66	0.06	6	4.67	0.21	-0.01
153	Interventions to Life-threatening Situations	202	4.65	0.05	6	4.50	0.22	0.15
186	Order Verification	188	4.65	0.05	6	4.50	0.22	0.15
221	Respiratory Interventions	161	4.65	0.05	6	4.50	0.34	0.15
52	Client Consent	254	4.63	0.04	6	4.17	0.31	0.46
1	Abuse Prevention	271	4.62	0.04	6	4.33	0.49	0.29
88	Confidentiality	253	4.62	0.04	6	4.17	0.31	0.45
131	Health Care Provider's Orders	202	4.62	0.04	6	4.33	0.33	0.29
231	Scope of Practice	162	4.62	0.05	6	4.67	0.21	-0.05
89	Confidentiality and Privacy Laws	266	4.60	0.04	6	4.33	0.33	0.27

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/VN			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
220	Respiratory Disorders	159	4.60	0.05	6	4.33	0.33	0.27
28	Blood Glucose Monitoring	254	4.59	0.04	6	4.17	0.31	0.42
169	Medication Administration Routes	202	4.59	0.05	6	4.50	0.34	0.09
9	Adverse Events	269	4.58	0.04	6	4.50	0.34	0.08
72	Client Rights	254	4.57	0.04	6	4.33	0.21	0.24
137	Hyperglycemia	203	4.57	0.04	6	4.33	0.33	0.24
188	Oxygen Saturation Monitoring	190	4.57	0.05	6	4.67	0.21	-0.10
228	Safe Health Care Practice	160	4.56	0.05	6	4.00	0.26	0.56
227	Safe Health Care Environment	162	4.55	0.05	6	3.67	0.21	0.88
51	Client Condition	263	4.54	0.04	6	4.17	0.40	0.37
112	Emergency Preparedness	192	4.53	0.06	6	3.83	0.31	0.70
244	Staff Safety	158	4.53	0.06	6	4.33	0.21	0.20
113	Emergency Procedures	203	4.52	0.05	6	3.83	0.31	0.69
229	Safety Checks	163	4.52	0.06	6	4.00	0.26	0.52
177	Narcotics/Controlled Substances	202	4.51	0.05	6	4.17	0.31	0.34
245	Standard/Universal Precautions	162	4.51	0.05	6	4.17	0.31	0.34
60	Client Identification Methods	253	4.50	0.04	6	4.33	0.33	0.17
70	Client Privacy	254	4.50	0.04	6	3.83	0.31	0.67
85	Communication Skills	267	4.50	0.04	6	3.67	0.33	0.83
47	Client Care Prioritization	265	4.49	0.04	6	3.67	0.42	0.82
122	Fluid and Electrolyte Imbalance	191	4.49	0.05	6	4.50	0.34	-0.01
180	Neurological Checks	188	4.49	0.05	6	4.50	0.34	-0.01
43	Client Advocacy	266	4.48	0.04	6	3.33	0.42	1.15
123	Fluid Balance	201	4.48	0.05	6	4.33	0.33	0.15
7	Adult Client Care	272	4.46	0.04	6	4.17	0.17	0.29
159	Isolation Precautions	201	4.45	0.05	6	4.50	0.34	-0.05
237	Skin Integrity	163	4.45	0.05	6	4.33	0.21	0.12
278	Wound Dressing Change	161	4.45	0.06	6	3.83	0.31	0.62
202	Practice Error	160	4.44	0.07	6	4.33	0.33	0.11
265	Transfusion Reaction	161	4.44	0.08	6	4.50	0.22	-0.06
49	Client Communication	266	4.43	0.04	6	4.00	0.26	0.43
164	Mandatory Reporting	187	4.43	0.06	6	4.50	0.22	-0.07
248	Standards of Care	160	4.43	0.05	6	4.33	0.33	0.10
42	Circulatory Checks	252	4.42	0.05	6	4.17	0.31	0.25
65	Client Medication History	267	4.42	0.04	6	4.50	0.34	-0.08

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/VN			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
268	Urinary Retention	161	4.42	0.06	6	4.17	0.31	0.25
53	Client Disease Processes and Conditions	267	4.41	0.04	6	4.50	0.34	-0.09
145	Informed Consent	203	4.41	0.06	6	4.33	0.33	0.08
280	Wound Types	160	4.41	0.06	6	4.17	0.31	0.24
21	Basic Cardiac Abnormalities	269	4.40	0.05	6	4.33	0.33	0.07
67	Client Mental Status	265	4.40	0.04	6	4.17	0.31	0.23
81	Code of Ethics	267	4.40	0.04	6	4.17	0.31	0.23
174	Medication Reconciliation	189	4.40	0.06	6	3.83	0.31	0.57
190	Pain Management	189	4.40	0.05	6	4.33	0.21	0.07
4	Acute Illness	257	4.39	0.04	6	4.33	0.21	0.06
56	Client Evaluation	254	4.39	0.04	6	3.67	0.42	0.72
160	Laboratory Test Results	189	4.39	0.06	6	4.17	0.31	0.22
46	Client Baseline Data	252	4.38	0.04	6	3.67	0.21	0.71
98	Data Collection	252	4.38	0.05	6	3.67	0.33	0.71
142	Incision Care	188	4.38	0.05	6	4.17	0.31	0.21
210	Protocols	160	4.38	0.06	6	4.00	0.26	0.38
235	Shift Report, Hand-off	163	4.38	0.05	6	4.17	0.17	0.21
236	Skin Care	161	4.38	0.06	6	3.67	0.33	0.71
161	Laboratory Values	202	4.37	0.05	6	4.00	0.45	0.37
73	Client Risk Identification	266	4.35	0.05	6	4.33	0.33	0.02
262	Tracheostomy	160	4.35	0.07	6	4.00	0.37	0.35
111	Electronic Medical Records (EMR)	203	4.34	0.06	6	3.83	0.31	0.51
155	Intravenous Complications	203	4.34	0.07	6	4.17	0.31	0.17
206	Privacy Practices	161	4.34	0.06	6	3.83	0.31	0.51
80	Client-centered Care	254	4.32	0.05	6	4.00	0.26	0.32
103	Diagnostic Test Results	202	4.32	0.06	6	4.17	0.31	0.15
3	Activities of Daily Living	271	4.31	0.04	6	3.50	0.43	0.81
58	Client History	253	4.31	0.04	6	3.50	0.22	0.81
99	De-escalation Techniques	265	4.31	0.05	6	3.83	0.17	0.48
208	Professional Boundaries	160	4.31	0.07	6	4.17	0.31	0.14
50	Client Complication	254	4.30	0.05	6	4.17	0.31	0.13
57	Client Health History	265	4.30	0.05	6	4.00	0.26	0.30
207	Professional Accountability	163	4.30	0.06	6	4.33	0.33	-0.03
240	Specimen Collection	161	4.30	0.06	6	4.00	0.26	0.30
242	Staff Competency	159	4.30	0.07	6	4.00	0.26	0.30

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/VN			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
45	Client Autonomy	265	4.29	0.05	6	4.17	0.31	0.12
192	Peripheral Intravenous Catheter Maintenance	190	4.29	0.07	6	4.00	0.37	0.29
69	Client Observation	264	4.28	0.05	6	4.33	0.33	-0.05
184	Nurse-Client Relationships	190	4.28	0.05	6	3.50	0.22	0.78
267	Urinary Catheter Maintenance	163	4.28	0.06	6	4.00	0.26	0.28
128	Geriatric Client Care	192	4.27	0.06	6	4.33	0.21	-0.06
40	Chemical Toxicity	253	4.26	0.06	6	3.33	0.33	0.93
173	Medication History	201	4.26	0.06	6	3.83	0.31	0.43
199	Policies and Procedures	202	4.26	0.06	6	4.50	0.22	-0.24
136	High Risk Behaviors	189	4.25	0.06	6	3.50	0.22	0.75
146	Intake/Output	189	4.25	0.06	6	4.00	0.26	0.25
166	Medical Equipment	188	4.24	0.06	6	3.67	0.21	0.57
200	Polypharmacy	190	4.24	0.07	6	4.50	0.22	-0.26
246	Standardized Orders	161	4.24	0.06	6	4.17	0.31	0.07
261	Time Management Skills/Techniques	163	4.23	0.06	6	3.67	0.21	0.56
31	Body Mechanics	268	4.22	0.05	6	3.83	0.31	0.39
54	Client Education	255	4.22	0.05	6	3.67	0.21	0.55
68	Client Nutrition	255	4.22	0.05	6	4.00	0.26	0.22
91	Continuity of Care	265	4.21	0.05	6	3.67	0.21	0.54
104	Diagnostic Values	193	4.21	0.07	6	4.00	0.26	0.21
198	Plan of Care	189	4.20	0.06	6	3.67	0.21	0.53
114	Enteral Tube Management	190	4.19	0.07	6	4.17	0.31	0.02
157	Intravenous Site Maintenance	203	4.19	0.07	6	4.17	0.31	0.02
66	Client Mental Competency	253	4.18	0.05	6	4.00	0.26	0.18
83	Comfort Measures	266	4.18	0.05	6	3.50	0.22	0.68
117	Evidence-based Practice	203	4.18	0.06	6	3.67	0.42	0.51
141	Incident Report	203	4.18	0.06	6	4.17	0.31	0.01
175	Mental Health Disorders	201	4.18	0.05	6	3.83	0.17	0.35
71	Client Psychosocial Needs	265	4.17	0.05	6	4.00	0.26	0.17
156	Intravenous Piggyback Medication	190	4.17	0.08	6	4.17	0.31	0.00
167	Medical Procedures	203	4.17	0.06	6	3.83	0.17	0.34
191	Pain Scales	201	4.17	0.06	6	4.17	0.17	0.00
216	Regulatory/Policy Compliance	160	4.17	0.07	6	4.17	0.31	0.00
243	Staff Education	163	4.17	0.06	6	4.17	0.17	0.00
259	Therapeutic Communication	163	4.17	0.06	6	3.50	0.22	0.67

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/VN			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
273	Ventilator	163	4.17	0.09	6	4.17	0.31	0.00
41	Chronic Illness	266	4.16	0.05	6	4.00	0.26	0.16
14	Appropriate Resources	255	4.15	0.05	6	3.67	0.42	0.48
150	Intermittent Suction of Nasogastric Tube	189	4.15	0.07	6	3.83	0.31	0.32
152	Intervention Techniques	189	4.15	0.06	6	3.67	0.21	0.48
18	Assistive Devices for Medication Administration	257	4.14	0.06	6	4.33	0.21	-0.19
158	Invasive Procedures	189	4.14	0.08	6	4.17	0.40	-0.03
23	Behavioral Management	269	4.13	0.05	6	3.50	0.22	0.63
63	Client Limitations	266	4.13	0.05	6	3.83	0.17	0.30
126	Functional Status	191	4.13	0.06	6	3.67	0.42	0.46
209	Professional Development	163	4.13	0.07	6	3.83	0.31	0.30
252	Substance Abuse Disorder	160	4.13	0.07	6	3.67	0.42	0.46
19	Available Resources	267	4.12	0.05	6	3.50	0.34	0.62
30	Blood Product Transfusion	253	4.12	0.08	6	4.33	0.33	-0.21
82	Cognitive Impairment	253	4.12	0.05	6	3.67	0.21	0.45
194	Peritoneal Dialysis	186	4.12	0.07	6	3.83	0.31	0.29
62	Client Knowledge Deficit	254	4.11	0.05	6	3.83	0.17	0.28
97	Cultural Competency	265	4.11	0.05	6	3.83	0.31	0.28
189	Pacemaker	202	4.11	0.07	6	4.17	0.31	-0.06
254	Supervision/Monitoring of Assistive Personnel	160	4.11	0.07	6	3.50	0.22	0.61
24	Behavioral Management Techniques	254	4.10	0.05	6	3.50	0.22	0.60
48	Client Cognitive Ability	253	4.10	0.05	6	3.83	0.31	0.27
253	Substance Withdrawal	163	4.10	0.08	6	4.00	0.45	0.10
135	Hemodialysis	203	4.09	0.08	6	4.00	0.37	0.09
151	Intervention Implementation	203	4.09	0.06	6	3.67	0.21	0.42
178	Nasogastric Tube Maintenance	186	4.09	0.07	6	4.17	0.31	-0.08
75	Client Self-advocacy	264	4.08	0.05	6	3.83	0.17	0.25
102	Diagnostic Test Procedures	194	4.08	0.07	6	4.17	0.17	-0.09
5	Adaptive Devices	270	4.07	0.05	6	3.50	0.34	0.57
22	Behavioral Disorders	254	4.07	0.05	6	3.67	0.21	0.40
29	Blood Product	270	4.07	0.07	6	4.33	0.33	-0.26
176	Mobility Needs	189	4.07	0.06	6	3.83	0.17	0.24
196	Personal Limitations	188	4.07	0.06	6	3.67	0.33	0.40
205	Preventative Care	163	4.07	0.07	6	3.67	0.21	0.40

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/VN			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
239	Specialty Diet	163	4.07	0.07	6	3.67	0.33	0.40
270	Usage of Social Media with Respect to Client Information	159	4.07	0.09	6	3.50	0.34	0.57
272	Venipuncture	159	4.07	0.09	6	3.83	0.31	0.24
8	Advance Directive	257	4.06	0.06	6	4.50	0.22	-0.44
264	Transfer Process	161	4.06	0.07	6	4.33	0.33	-0.27
266	Treatment Barriers	159	4.06	0.07	6	3.83	0.31	0.23
36	Central Venous Catheter	253	4.04	0.07	6	3.50	0.56	0.54
84	Communication Barriers	251	4.04	0.05	6	3.83	0.40	0.21
118	Evidence-based Practice Resources	191	4.04	0.07	6	3.50	0.34	0.54
211	Psychological Evaluation	163	4.04	0.07	6	3.33	0.33	0.71
90	Conflict Resolution	252	4.03	0.05	6	3.50	0.22	0.53
110	Electrocardiogram	192	4.03	0.08	6	4.17	0.31	-0.14
226	Risk Tools	160	4.03	0.08	6	3.67	0.33	0.36
274	Visual Impairment	158	4.03	0.07	6	4.00	0.26	0.03
100	Delegation	254	4.02	0.05	6	3.83	0.17	0.19
115	Enteral Tube Types	203	4.02	0.07	6	4.17	0.31	-0.15
233	Sensory/Perceptual Alterations	163	4.02	0.06	6	3.67	0.33	0.35
234	Sequential Compression Devices	159	4.02	0.08	6	3.83	0.31	0.19
247	Standardized Pain Scales	163	4.02	0.06	6	4.17	0.31	-0.15
255	Supervision/Monitoring of Tasks Assigned	162	4.02	0.07	6	3.50	0.22	0.52
212	Psychosocial Functioning	160	4.01	0.08	6	3.17	0.31	0.84
219	Resources	163	4.01	0.06	6	3.33	0.33	0.68
277	Wound Drainage Device Removal	163	4.01	0.08	6	4.00	0.37	0.01
279	Wound Irrigation	162	4.01	0.08	6	3.83	0.31	0.18
37	Central Venous Catheter Management	269	4.00	0.07	6	3.50	0.56	0.50
148	Interdisciplinary Communication	187	4.00	0.06	6	3.50	0.22	0.50
92	Continuous Suction of Nasogastric Tube	255	3.99	0.07	6	3.67	0.21	0.32
147	Interdisciplinary Collaboration	203	3.99	0.06	6	3.33	0.21	0.66
149	Interdisciplinary Roles and Responsibilities	203	3.99	0.06	6	3.50	0.22	0.49
193	Peripheral Intravenous Catheter Removal	203	3.99	0.08	6	3.67	0.33	0.32
203	Prenatal Complication	163	3.99	0.10	6	3.83	0.40	0.16
256	Support Systems	160	3.99	0.08	6	3.50	0.22	0.49
17	Assistive Devices	269	3.98	0.05	6	4.17	0.31	-0.19
77	Client Stressors	266	3.98	0.05	6	3.33	0.21	0.65
257	Surgical Procedure	162	3.98	0.09	6	4.00	0.37	-0.02

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/VN			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
32	Bowel Management Protocol	254	3.96	0.06	6	3.83	0.31	0.13
94	Coping Mechanisms	254	3.96	0.06	6	3.67	0.33	0.29
108	Drainage Device	189	3.96	0.07	6	4.17	0.31	-0.21
125	Follow-up with Clients	202	3.96	0.06	6	3.17	0.40	0.79
129	Grieving Process	202	3.96	0.06	6	3.83	0.17	0.13
213	Quality Improvement	163	3.96	0.07	6	3.00	0.26	0.96
263	Transfer Assistive Devices	163	3.96	0.07	6	4.33	0.33	-0.37
165	Measurement Conversions	202	3.95	0.08	6	3.33	0.56	0.62
214	Reality Orientation	159	3.95	0.08	6	3.33	0.56	0.62
140	Immunizations	191	3.94	0.07	6	3.67	0.49	0.27
260	Therapeutic Environment	159	3.94	0.08	6	3.50	0.22	0.44
276	Warming Measures	160	3.94	0.09	6	3.83	0.31	0.11
20	Barriers to Learning	257	3.93	0.06	6	3.67	0.21	0.26
26	Bladder Management Protocol	254	3.93	0.06	6	3.17	0.31	0.76
38	Chain of Command	255	3.93	0.06	6	4.00	0.26	-0.07
39	Chemical Dependency	267	3.93	0.06	6	3.33	0.33	0.60
55	Client Equipment	266	3.93	0.05	6	3.67	0.21	0.26
61	Client in Labor	263	3.93	0.07	6	4.17	0.48	-0.24
105	Disaster Drills	203	3.93	0.07	6	3.50	0.34	0.43
121	Fetal Heart Monitoring	201	3.93	0.09	6	4.00	0.52	-0.07
124	Follow-up Care Accessibility	191	3.93	0.07	6	3.83	0.17	0.10
76	Client Spiritual Beliefs	254	3.92	0.06	6	3.17	0.31	0.75
223	Restraint Alternatives	163	3.91	0.07	6	4.00	0.26	-0.09
238	Sleep Hygiene	160	3.90	0.08	6	3.83	0.31	0.07
25	Bladder Irrigation	269	3.88	0.06	6	3.33	0.42	0.55
134	Hearing Impairment	191	3.88	0.07	6	3.83	0.31	0.05
64	Client Literacy	254	3.87	0.05	6	3.83	0.17	0.04
182	Non Pharmacological Interventions	189	3.87	0.07	6	3.67	0.21	0.20
162	Learning Barriers	189	3.86	0.07	6	3.83	0.31	0.03
179	Nasogastric Tube Types	203	3.85	0.08	6	4.33	0.33	-0.48
143	Infant Care	201	3.84	0.09	6	3.83	0.48	0.01
13	Antepartum Client	270	3.83	0.07	6	3.67	0.42	0.16
116	Environmental Factors	193	3.83	0.07	6	3.17	0.31	0.66
120	Feeding Formula Types	191	3.83	0.08	6	4.17	0.31	-0.34
201	Postpartum Client	163	3.82	0.10	6	3.83	0.31	-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/VN			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
133	Health Screening Programs	203	3.81	0.06	6	3.17	0.31	0.64
79	Client Weight	264	3.80	0.06	6	3.83	0.31	-0.03
87	Compression Stockings	262	3.80	0.06	6	3.83	0.40	-0.03
6	Adolescent Client Care	258	3.79	0.07	6	3.50	0.50	0.29
35	Care Plan	269	3.79	0.07	6	3.17	0.48	0.62
258	Suture Removal	159	3.79	0.08	6	3.83	0.31	-0.04
217	Relaxation Techniques	163	3.78	0.07	6	3.00	0.37	0.78
181	Newborn Client Care	202	3.77	0.09	6	4.00	0.37	-0.23
187	Ostomy Types	203	3.77	0.07	6	4.17	0.40	-0.40
197	Physical Data Norms	203	3.77	0.07	6	3.83	0.31	-0.06
224	Restraints	159	3.77	0.09	6	4.17	0.31	-0.40
251	Stressful Life Events	162	3.77	0.08	6	3.17	0.31	0.60
163	Life Transitions	202	3.75	0.07	6	3.67	0.33	0.08
86	Community Resources	251	3.73	0.06	6	3.17	0.31	0.56
93	Cooling Measures	262	3.71	0.06	6	3.17	0.31	0.54
269	Usage of Social Media Related to Client Information	163	3.70	0.11	6	3.00	0.58	0.70
232	Seclusion	159	3.69	0.09	6	3.67	0.33	0.02
101	Developmental Stages	204	3.68	0.07	6	3.83	0.31	-0.15
185	Nutritional Norms	202	3.68	0.07	6	3.67	0.21	0.01
27	Bladder Palpation Technique	269	3.67	0.07	6	3.17	0.31	0.50
154	Interviewing Skills	187	3.65	0.08	6	3.00	0.26	0.65
241	Spiritual Awareness	163	3.65	0.08	6	3.17	0.31	0.48
106	Discharge Process	190	3.63	0.08	6	3.33	0.33	0.30
271	Validation Therapy	163	3.63	0.08	6	3.33	0.21	0.30
34	Care of Toddler Client through Two Years	252	3.62	0.08	6	3.17	0.54	0.45
230	School Age Client Care	160	3.62	0.09	6	3.50	0.43	0.12
95	Cost Effective Care	264	3.58	0.06	6	3.33	0.49	0.25
132	Health Promotion Programs	190	3.56	0.08	6	3.17	0.31	0.39
218	Reminiscence Therapy	160	3.56	0.09	6	2.83	0.31	0.73
204	Preschool Client Care	159	3.55	0.10	6	3.50	0.43	0.05
119	Eye Irrigation	202	3.53	0.08	6	3.67	0.42	-0.14
215	Referral	163	3.52	0.09	6	3.00	0.45	0.52
249	Staple Removal	163	3.51	0.09	6	3.67	0.33	-0.16
12	Alternative/Complementary Therapy	256	3.50	0.07	6	3.33	0.33	0.17
195	Personal Biases	202	3.42	0.09	6	3.83	0.40	-0.41

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/VN			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
127	Gender Identity	203	3.40	0.09	6	3.17	0.54	0.23
109	Ear Irrigation	203	3.32	0.08	6	3.50	0.43	-0.18
183	Nose Irrigation	203	3.25	0.08	6	3.50	0.43	-0.25
130	Group Session	190	3.24	0.09	6	3.17	0.48	0.07

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

Preface: 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?

LPN/VN Educator and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Educator Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Educator			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
144	Infection Control	48	4.90	0.04	6	4.50	0.22	0.40
171	Medication Administration Safety	26	4.88	0.08	6	4.67	0.21	0.21
59	Client Identification	31	4.87	0.06	6	4.50	0.34	0.37
168	Medication	48	4.83	0.06	6	4.50	0.34	0.33
15	Aseptic Technique	31	4.81	0.07	6	4.50	0.22	0.31
172	Medication Administration Calculations	48	4.81	0.06	6	4.67	0.21	0.14
153	Interventions to Life-threatening Situations	26	4.81	0.08	6	4.50	0.22	0.31
89	Confidentiality and Privacy Laws	31	4.81	0.10	6	4.33	0.33	0.48
245	Standard/Universal Precautions	26	4.81	0.08	6	4.17	0.31	0.64
74	Client Safety	53	4.79	0.06	6	4.67	0.21	0.12
170	Medication Administration Rights	48	4.79	0.07	6	4.67	0.21	0.12
138	Hypoglycemia	48	4.77	0.06	6	4.17	0.31	0.60
81	Code of Ethics	31	4.77	0.08	6	4.17	0.31	0.60
60	Client Identification Methods	53	4.75	0.06	6	4.33	0.33	0.42
44	Client Allergies	53	4.74	0.07	6	4.17	0.40	0.57
78	Client Vital Signs	53	4.74	0.06	6	4.33	0.33	0.41
96	Critical Thinking	54	4.74	0.07	6	4.00	0.37	0.74
225	Rights of Medication Administration	26	4.73	0.13	6	4.67	0.21	0.06
33	Cardiopulmonary Resuscitation	31	4.71	0.09	6	4.67	0.21	0.04
11	Allergic Reactions	31	4.71	0.09	6	4.83	0.17	-0.12
88	Confidentiality	52	4.71	0.06	6	4.17	0.31	0.54
10	Adverse Reactions	54	4.69	0.09	6	4.50	0.34	0.19
275	Vital Signs	26	4.69	0.11	6	4.33	0.21	0.36
131	Health Care Provider's Orders	26	4.69	0.12	6	4.33	0.33	0.36
9	Adverse Events	31	4.68	0.12	6	4.50	0.34	0.18
2	Active Listening	54	4.67	0.07	6	4.17	0.31	0.50
16	Aspiration Precautions	53	4.66	0.08	6	4.50	0.22	0.16
139	Hypoxia	26	4.65	0.12	6	4.17	0.31	0.48
231	Scope of Practice	26	4.65	0.12	6	4.67	0.21	-0.02
51	Client Condition	31	4.65	0.11	6	4.17	0.40	0.48
222	Responses to Life-threatening Situations	47	4.64	0.08	6	4.50	0.34	0.14
107	Documentation	26	4.62	0.12	6	4.67	0.21	-0.05

LPN/VN Educator and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Educator Average Importance

Survey Position #	Knowledge Statement	LPN/VN Educator			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
169	Medication Administration Routes	26	4.62	0.16	6	4.50	0.34	0.12
47	Client Care Prioritization	31	4.61	0.10	6	3.67	0.42	0.94
1	Abuse Prevention	30	4.60	0.12	6	4.33	0.49	0.27
72	Client Rights	52	4.60	0.07	6	4.33	0.21	0.27
85	Communication Skills	30	4.60	0.10	6	3.67	0.33	0.93
186	Order Verification	48	4.58	0.09	6	4.50	0.22	0.08
52	Client Consent	53	4.58	0.08	6	4.17	0.31	0.41
137	Hyperglycemia	26	4.58	0.10	6	4.33	0.33	0.25
145	Informed Consent	26	4.58	0.14	6	4.33	0.33	0.25
207	Professional Accountability	26	4.58	0.11	6	4.33	0.33	0.25
250	Sterile Technique	47	4.55	0.08	6	4.50	0.22	0.05
28	Blood Glucose Monitoring	53	4.55	0.07	6	4.17	0.31	0.38
43	Client Advocacy	31	4.55	0.10	6	3.33	0.42	1.22
7	Adult Client Care	31	4.55	0.14	6	4.17	0.17	0.38
202	Practice Error	47	4.55	0.08	6	4.33	0.33	0.22
159	Isolation Precautions	26	4.54	0.15	6	4.50	0.34	0.04
259	Therapeutic Communication	26	4.54	0.11	6	3.50	0.22	1.04
49	Client Communication	30	4.53	0.10	6	4.00	0.26	0.53
42	Circulatory Checks	53	4.53	0.10	6	4.17	0.31	0.36
45	Client Autonomy	30	4.53	0.11	6	4.17	0.31	0.36
188	Oxygen Saturation Monitoring	48	4.52	0.07	6	4.67	0.21	-0.15
53	Client Disease Processes and Conditions	31	4.52	0.12	6	4.50	0.34	0.02
190	Pain Management	48	4.50	0.10	6	4.33	0.21	0.17
31	Body Mechanics	30	4.50	0.14	6	3.83	0.31	0.67
191	Pain Scales	24	4.50	0.15	6	4.17	0.17	0.33
244	Staff Safety	47	4.47	0.10	6	4.33	0.21	0.14
70	Client Privacy	53	4.47	0.07	6	3.83	0.31	0.64
208	Professional Boundaries	47	4.47	0.09	6	4.17	0.31	0.30
229	Safety Checks	26	4.46	0.15	6	4.00	0.26	0.46
122	Fluid and Electrolyte Imbalance	48	4.46	0.08	6	4.50	0.34	-0.04
67	Client Mental Status	31	4.45	0.11	6	4.17	0.31	0.28
83	Comfort Measures	31	4.45	0.14	6	3.50	0.22	0.95
98	Data Collection	54	4.44	0.08	6	3.67	0.33	0.77
227	Safe Health Care Environment	26	4.42	0.16	6	3.67	0.21	0.75
113	Emergency Procedures	26	4.42	0.13	6	3.83	0.31	0.59
180	Neurological Checks	48	4.40	0.08	6	4.50	0.34	-0.10

LPN/VN Educator and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Educator Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Educator			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
164	Mandatory Reporting	48	4.40	0.09	6	4.50	0.22	-0.10
248	Standards of Care	47	4.40	0.08	6	4.33	0.33	0.07
236	Skin Care	47	4.40	0.08	6	3.67	0.33	0.73
69	Client Observation	30	4.40	0.11	6	4.33	0.33	0.07
221	Respiratory Interventions	26	4.38	0.18	6	4.50	0.34	-0.12
228	Safe Health Care Practice	47	4.38	0.10	6	4.00	0.26	0.38
46	Client Baseline Data	53	4.38	0.09	6	3.67	0.21	0.71
261	Time Management Skills/Techniques	26	4.38	0.16	6	3.67	0.21	0.71
4	Acute Illness	54	4.37	0.09	6	4.33	0.21	0.04
184	Nurse-Client Relationships	48	4.35	0.09	6	3.50	0.22	0.85
247	Standardized Pain Scales	26	4.35	0.14	6	4.17	0.31	0.18
220	Respiratory Disorders	47	4.34	0.09	6	4.33	0.33	0.01
80	Client-centered Care	53	4.34	0.08	6	4.00	0.26	0.34
174	Medication Reconciliation	48	4.33	0.12	6	3.83	0.31	0.50
73	Client Risk Identification	30	4.33	0.15	6	4.33	0.33	0.00
56	Client Evaluation	53	4.32	0.09	6	3.67	0.42	0.65
3	Activities of Daily Living	31	4.32	0.16	6	3.50	0.43	0.82
57	Client Health History	31	4.32	0.13	6	4.00	0.26	0.32
97	Cultural Competency	31	4.32	0.13	6	3.83	0.31	0.49
177	Narcotics/Controlled Substances	26	4.31	0.15	6	4.17	0.31	0.14
123	Fluid Balance	26	4.31	0.14	6	4.33	0.33	-0.02
128	Geriatric Client Care	48	4.31	0.10	6	4.33	0.21	-0.02
65	Client Medication History	30	4.30	0.16	6	4.50	0.34	-0.20
50	Client Complication	53	4.30	0.10	6	4.17	0.31	0.13
54	Client Education	53	4.30	0.09	6	3.67	0.21	0.63
146	Intake/Output	48	4.29	0.07	6	4.00	0.26	0.29
200	Polypharmacy	48	4.29	0.10	6	4.50	0.22	-0.21
235	Shift Report, Hand-off	26	4.27	0.17	6	4.17	0.17	0.10
210	Protocols	47	4.26	0.10	6	4.00	0.26	0.26
38	Chain of Command	53	4.26	0.09	6	4.00	0.26	0.26
224	Restraints	47	4.26	0.10	6	4.17	0.31	0.09
129	Grieving Process	25	4.24	0.14	6	3.83	0.17	0.41
111	Electronic Medical Records (EMR)	26	4.23	0.18	6	3.83	0.31	0.40
242	Staff Competency	47	4.23	0.10	6	4.00	0.26	0.23
199	Policies and Procedures	26	4.23	0.17	6	4.50	0.22	-0.27
41	Chronic Illness	30	4.23	0.15	6	4.00	0.26	0.23

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Survey Position #	Knowledge Statement	LPN/VN Educator			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
148	Interdisciplinary Communication	48	4.23	0.10	6	3.50	0.22	0.73
268	Urinary Retention	47	4.19	0.11	6	4.17	0.31	0.02
160	Laboratory Test Results	48	4.19	0.11	6	4.17	0.31	0.02
206	Privacy Practices	47	4.19	0.11	6	3.83	0.31	0.36
176	Mobility Needs	48	4.19	0.08	6	3.83	0.17	0.36
205	Preventative Care	26	4.19	0.15	6	3.67	0.21	0.52
142	Incision Care	48	4.17	0.08	6	4.17	0.31	0.00
68	Client Nutrition	53	4.17	0.09	6	4.00	0.26	0.17
91	Continuity of Care	31	4.16	0.15	6	3.67	0.21	0.49
71	Client Psychosocial Needs	31	4.16	0.14	6	4.00	0.26	0.16
278	Wound Dressing Change	47	4.15	0.11	6	3.83	0.31	0.32
173	Medication History	26	4.15	0.19	6	3.83	0.31	0.32
48	Client Cognitive Ability	53	4.15	0.09	6	3.83	0.31	0.32
270	Usage of Social Media with Respect to Client Information	46	4.15	0.14	6	3.50	0.34	0.65
196	Personal Limitations	48	4.13	0.11	6	3.67	0.33	0.46
237	Skin Integrity	26	4.12	0.19	6	4.33	0.21	-0.21
117	Evidence-based Practice	26	4.12	0.17	6	3.67	0.42	0.45
255	Supervision/Monitoring of Tasks Assigned	26	4.12	0.15	6	3.50	0.22	0.62
198	Plan of Care	47	4.11	0.11	6	3.67	0.21	0.44
216	Regulatory/Policy Compliance	47	4.11	0.11	6	4.17	0.31	-0.06
24	Behavioral Management Techniques	53	4.11	0.09	6	3.50	0.22	0.61
58	Client History	53	4.09	0.07	6	3.50	0.22	0.59
192	Peripheral Intravenous Catheter Maintenance	48	4.08	0.13	6	4.00	0.37	0.08
114	Enteral Tube Management	48	4.08	0.11	6	4.17	0.31	-0.09
141	Incident Report	26	4.08	0.23	6	4.17	0.31	-0.09
152	Intervention Techniques	48	4.08	0.10	6	3.67	0.21	0.41
269	Usage of Social Media Related to Client Information	26	4.08	0.23	6	3.00	0.58	1.08
136	High Risk Behaviors	48	4.06	0.10	6	3.50	0.22	0.56
104	Diagnostic Values	48	4.06	0.09	6	4.00	0.26	0.06
126	Functional Status	48	4.06	0.11	6	3.67	0.42	0.39
94	Coping Mechanisms	54	4.06	0.09	6	3.67	0.33	0.39
265	Transfusion Reaction	26	4.04	0.25	6	4.50	0.22	-0.46
262	Tracheostomy	47	4.04	0.13	6	4.00	0.37	0.04
40	Chemical Toxicity	53	4.04	0.13	6	3.33	0.33	0.71

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Survey Position #	Knowledge Statement	LPN/VN Educator			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
18	Assistive Devices for Medication Administration	53	4.04	0.11	6	4.33	0.21	-0.29
209	Professional Development	26	4.04	0.14	6	3.83	0.31	0.21
90	Conflict Resolution	53	4.04	0.09	6	3.50	0.22	0.54
5	Adaptive Devices	31	4.03	0.15	6	3.50	0.34	0.53
112	Emergency Preparedness	48	4.02	0.14	6	3.83	0.31	0.19
166	Medical Equipment	48	4.02	0.12	6	3.67	0.21	0.35
14	Appropriate Resources	53	4.02	0.11	6	3.67	0.42	0.35
82	Cognitive Impairment	53	4.02	0.09	6	3.67	0.21	0.35
62	Client Knowledge Deficit	53	4.02	0.10	6	3.83	0.17	0.19
84	Communication Barriers	53	4.02	0.10	6	3.83	0.40	0.19
182	Non Pharmacological Interventions	48	4.02	0.10	6	3.67	0.21	0.35
21	Basic Cardiac Abnormalities	31	4.00	0.19	6	4.33	0.33	-0.33
103	Diagnostic Test Results	26	4.00	0.17	6	4.17	0.31	-0.17
240	Specimen Collection	47	4.00	0.11	6	4.00	0.26	0.00
66	Client Mental Competency	53	4.00	0.10	6	4.00	0.26	0.00
254	Supervision/Monitoring of Assistive Personnel	47	4.00	0.10	6	3.50	0.22	0.50
151	Intervention Implementation	26	4.00	0.16	6	3.67	0.21	0.33
147	Interdisciplinary Collaboration	26	4.00	0.18	6	3.33	0.21	0.67
125	Follow-up with Clients	26	4.00	0.17	6	3.17	0.40	0.83
55	Client Equipment	30	4.00	0.15	6	3.67	0.21	0.33
280	Wound Types	47	3.98	0.10	6	4.17	0.31	-0.19
32	Bowel Management Protocol	53	3.98	0.11	6	3.83	0.31	0.15
20	Barriers to Learning	53	3.98	0.10	6	3.67	0.21	0.31
26	Bladder Management Protocol	53	3.98	0.11	6	3.17	0.31	0.81
99	De-escalation Techniques	31	3.97	0.17	6	3.83	0.17	0.14
63	Client Limitations	30	3.97	0.15	6	3.83	0.17	0.14
77	Client Stressors	31	3.97	0.14	6	3.33	0.21	0.64
161	Laboratory Values	26	3.96	0.22	6	4.00	0.45	-0.04
267	Urinary Catheter Maintenance	26	3.96	0.20	6	4.00	0.26	-0.04
246	Standardized Orders	47	3.96	0.11	6	4.17	0.31	-0.21
251	Stressful Life Events	26	3.96	0.17	6	3.17	0.31	0.79
156	Intravenous Piggyback Medication	48	3.94	0.14	6	4.17	0.31	-0.23
22	Behavioral Disorders	53	3.94	0.10	6	3.67	0.21	0.27
100	Delegation	54	3.94	0.11	6	3.83	0.17	0.11

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		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
92	Continuous Suction of Nasogastric Tube	54	3.94	0.13	6	3.67	0.21	0.27
140	Immunizations	48	3.94	0.11	6	3.67	0.49	0.27
155	Intravenous Complications	26	3.92	0.25	6	4.17	0.31	-0.25
253	Substance Withdrawal	26	3.92	0.17	6	4.00	0.45	-0.08
178	Nasogastric Tube Maintenance	48	3.92	0.11	6	4.17	0.31	-0.25
102	Diagnostic Test Procedures	48	3.92	0.10	6	4.17	0.17	-0.25
197	Physical Data Norms	25	3.92	0.18	6	3.83	0.31	0.09
30	Blood Product Transfusion	53	3.91	0.15	6	4.33	0.33	-0.42
260	Therapeutic Environment	47	3.91	0.11	6	3.50	0.22	0.41
150	Intermittent Suction of Nasogastric Tube	48	3.90	0.12	6	3.83	0.31	0.07
158	Invasive Procedures	47	3.89	0.13	6	4.17	0.40	-0.28
234	Sequential Compression Devices	47	3.89	0.10	6	3.83	0.31	0.06
157	Intravenous Site Maintenance	26	3.88	0.20	6	4.17	0.31	-0.29
175	Mental Health Disorders	26	3.88	0.14	6	3.83	0.17	0.05
219	Resources	26	3.88	0.21	6	3.33	0.33	0.55
165	Measurement Conversions	26	3.88	0.22	6	3.33	0.56	0.55
223	Restraint Alternatives	26	3.88	0.20	6	4.00	0.26	-0.12
23	Behavioral Management	31	3.87	0.18	6	3.50	0.22	0.37
252	Substance Abuse Disorder	47	3.87	0.13	6	3.67	0.42	0.20
19	Available Resources	31	3.87	0.16	6	3.50	0.34	0.37
75	Client Self-advocacy	31	3.87	0.14	6	3.83	0.17	0.04
8	Advance Directive	54	3.87	0.13	6	4.50	0.22	-0.63
212	Psychosocial Functioning	47	3.87	0.11	6	3.17	0.31	0.70
17	Assistive Devices	31	3.87	0.17	6	4.17	0.31	-0.30
79	Client Weight	31	3.87	0.19	6	3.83	0.31	0.04
233	Sensory/Perceptual Alterations	26	3.85	0.18	6	3.67	0.33	0.18
263	Transfer Assistive Devices	26	3.85	0.21	6	4.33	0.33	-0.48
214	Reality Orientation	47	3.85	0.10	6	3.33	0.56	0.52
239	Specialty Diet	25	3.84	0.20	6	3.67	0.33	0.17
266	Treatment Barriers	47	3.83	0.09	6	3.83	0.31	0.00
274	Visual Impairment	47	3.83	0.11	6	4.00	0.26	-0.17
256	Support Systems	47	3.83	0.11	6	3.50	0.22	0.33
108	Drainage Device	48	3.83	0.09	6	4.17	0.31	-0.34
76	Client Spiritual Beliefs	53	3.83	0.11	6	3.17	0.31	0.66
118	Evidence-based Practice Resources	48	3.81	0.11	6	3.50	0.34	0.31
226	Risk Tools	47	3.81	0.13	6	3.67	0.33	0.14

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		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
217	Relaxation Techniques	26	3.81	0.18	6	3.00	0.37	0.81
195	Personal Biases	26	3.81	0.25	6	3.83	0.40	-0.02
124	Follow-up Care Accessibility	48	3.79	0.10	6	3.83	0.17	-0.04
134	Hearing Impairment	48	3.79	0.11	6	3.83	0.31	-0.04
64	Client Literacy	53	3.79	0.11	6	3.83	0.17	-0.04
162	Learning Barriers	48	3.79	0.11	6	3.83	0.31	-0.04
167	Medical Procedures	26	3.77	0.19	6	3.83	0.17	-0.06
163	Life Transitions	26	3.77	0.18	6	3.67	0.33	0.10
232	Seclusion	47	3.77	0.14	6	3.67	0.33	0.10
101	Developmental Stages	26	3.77	0.24	6	3.83	0.31	-0.06
241	Spiritual Awareness	26	3.77	0.18	6	3.17	0.31	0.60
106	Discharge Process	48	3.77	0.10	6	3.33	0.33	0.44
154	Interviewing Skills	47	3.74	0.13	6	3.00	0.26	0.74
211	Psychological Evaluation	26	3.73	0.14	6	3.33	0.33	0.40
110	Electrocardiogram	48	3.73	0.12	6	4.17	0.31	-0.44
279	Wound Irrigation	26	3.73	0.20	6	3.83	0.31	-0.10
116	Environmental Factors	48	3.73	0.11	6	3.17	0.31	0.56
185	Nutritional Norms	26	3.73	0.19	6	3.67	0.21	0.06
264	Transfer Process	47	3.72	0.10	6	4.33	0.33	-0.61
238	Sleep Hygiene	47	3.72	0.10	6	3.83	0.31	-0.11
276	Warming Measures	47	3.70	0.14	6	3.83	0.31	-0.13
6	Adolescent Client Care	54	3.70	0.09	6	3.50	0.50	0.20
243	Staff Education	26	3.69	0.19	6	4.17	0.17	-0.48
213	Quality Improvement	26	3.69	0.21	6	3.00	0.26	0.69
133	Health Screening Programs	26	3.69	0.21	6	3.17	0.31	0.52
35	Care Plan	31	3.65	0.18	6	3.17	0.48	0.48
272	Venipuncture	47	3.64	0.13	6	3.83	0.31	-0.19
39	Chemical Dependency	30	3.63	0.16	6	3.33	0.33	0.30
132	Health Promotion Programs	48	3.63	0.11	6	3.17	0.31	0.46
149	Interdisciplinary Roles and Responsibilities	26	3.62	0.22	6	3.50	0.22	0.12
203	Prenatal Complication	26	3.62	0.24	6	3.83	0.40	-0.21
86	Community Resources	52	3.62	0.10	6	3.17	0.31	0.45
194	Peritoneal Dialysis	48	3.60	0.15	6	3.83	0.31	-0.23
105	Disaster Drills	26	3.58	0.24	6	3.50	0.34	0.08
215	Referral	26	3.58	0.19	6	3.00	0.45	0.58
29	Blood Product	30	3.57	0.24	6	4.33	0.33	-0.76

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		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
120	Feeding Formula Types	48	3.56	0.13	6	4.17	0.31	-0.61
87	Compression Stockings	31	3.55	0.19	6	3.83	0.40	-0.28
34	Care of Toddler Client through Two Years	53	3.53	0.12	6	3.17	0.54	0.36
201	Postpartum Client	26	3.42	0.26	6	3.83	0.31	-0.41
12	Alternative/Complementary Therapy	53	3.42	0.11	6	3.33	0.33	0.09
258	Suture Removal	46	3.41	0.16	6	3.83	0.31	-0.42
61	Client in Labor	31	3.39	0.23	6	4.17	0.48	-0.78
271	Validation Therapy	26	3.38	0.24	6	3.33	0.21	0.05
230	School Age Client Care	47	3.38	0.11	6	3.50	0.43	-0.12
204	Preschool Client Care	47	3.36	0.12	6	3.50	0.43	-0.14
143	Infant Care	26	3.35	0.28	6	3.83	0.48	-0.48
93	Cooling Measures	31	3.35	0.17	6	3.17	0.31	0.18
27	Bladder Palpation Technique	31	3.35	0.20	6	3.17	0.31	0.18
127	Gender Identity	25	3.32	0.26	6	3.17	0.54	0.15
179	Nasogastric Tube Types	26	3.31	0.23	6	4.33	0.33	-1.02
181	Newborn Client Care	26	3.31	0.28	6	4.00	0.37	-0.69
115	Enteral Tube Types	26	3.27	0.22	6	4.17	0.31	-0.90
257	Surgical Procedure	26	3.27	0.24	6	4.00	0.37	-0.73
13	Antepartum Client	31	3.26	0.23	6	3.67	0.42	-0.41
95	Cost Effective Care	31	3.26	0.17	6	3.33	0.49	-0.07
36	Central Venous Catheter	53	3.25	0.16	6	3.50	0.56	-0.25
189	Pacemaker	26	3.23	0.22	6	4.17	0.31	-0.94
277	Wound Drainage Device Removal	26	3.23	0.28	6	4.00	0.37	-0.77
187	Ostomy Types	25	3.20	0.23	6	4.17	0.40	-0.97
130	Group Session	48	3.19	0.12	6	3.17	0.48	0.02
135	Hemodialysis	26	3.12	0.22	6	4.00	0.37	-0.88
193	Peripheral Intravenous Catheter Removal	26	3.12	0.28	6	3.67	0.33	-0.55
25	Bladder Irrigation	31	3.06	0.24	6	3.33	0.42	-0.27
273	Ventilator	26	3.04	0.25	6	4.17	0.31	-1.13
37	Central Venous Catheter Management	30	3.03	0.25	6	3.50	0.56	-0.47
218	Reminiscence Therapy	47	3.00	0.14	6	2.83	0.31	0.17
121	Fetal Heart Monitoring	26	2.96	0.26	6	4.00	0.52	-1.04
249	Staple Removal	26	2.85	0.21	6	3.67	0.33	-0.82
119	Eye Irrigation	26	2.81	0.21	6	3.67	0.42	-0.86
183	Nose Irrigation	26	2.54	0.24	6	3.50	0.43	-0.96
109	Ear Irrigation	26	2.42	0.22	6	3.50	0.43	-1.08

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

Preface: 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?

LPN/VN Supervisor and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisor			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
33	Cardiopulmonary Resuscitation	39	4.95	0.04	6	4.67	0.21	0.28
171	Medication Administration Safety	30	4.83	0.07	6	4.67	0.21	0.16
11	Allergic Reactions	39	4.82	0.07	6	4.83	0.17	-0.01
74	Client Safety	46	4.76	0.08	6	4.67	0.21	0.09
168	Medication	43	4.74	0.08	6	4.50	0.34	0.24
170	Medication Administration Rights	43	4.74	0.08	6	4.67	0.21	0.07
88	Confidentiality	46	4.70	0.08	6	4.17	0.31	0.53
10	Adverse Reactions	46	4.70	0.08	6	4.50	0.34	0.20
2	Active Listening	47	4.70	0.09	6	4.17	0.31	0.53
153	Interventions to Life-threatening Situations	31	4.68	0.10	6	4.50	0.22	0.18
144	Infection Control	43	4.67	0.09	6	4.50	0.22	0.17
15	Aseptic Technique	39	4.67	0.08	6	4.50	0.22	0.17
96	Critical Thinking	46	4.67	0.08	6	4.00	0.37	0.67
250	Sterile Technique	38	4.66	0.09	6	4.50	0.22	0.16
172	Medication Administration Calculations	43	4.65	0.09	6	4.67	0.21	-0.02
59	Client Identification	39	4.64	0.09	6	4.50	0.34	0.14
222	Responses to Life-threatening Situations	39	4.64	0.09	6	4.50	0.34	0.14
16	Aspiration Precautions	46	4.63	0.10	6	4.50	0.22	0.13
225	Rights of Medication Administration	26	4.62	0.14	6	4.67	0.21	-0.05
231	Scope of Practice	26	4.62	0.11	6	4.67	0.21	-0.05
186	Order Verification	42	4.62	0.08	6	4.50	0.22	0.12
139	Hypoxia	31	4.61	0.10	6	4.17	0.31	0.44
44	Client Allergies	46	4.59	0.10	6	4.17	0.40	0.42
72	Client Rights	46	4.59	0.09	6	4.33	0.21	0.26
275	Vital Signs	26	4.58	0.10	6	4.33	0.21	0.25
131	Health Care Provider's Orders	31	4.58	0.12	6	4.33	0.33	0.25
107	Documentation	31	4.58	0.10	6	4.67	0.21	-0.09
78	Client Vital Signs	47	4.57	0.09	6	4.33	0.33	0.24
169	Medication Administration Routes	31	4.55	0.09	6	4.50	0.34	0.05
85	Communication Skills	38	4.55	0.09	6	3.67	0.33	0.88
9	Adverse Events	39	4.54	0.10	6	4.50	0.34	0.04
159	Isolation Precautions	31	4.52	0.15	6	4.50	0.34	0.02

LPN/VN Supervisor and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisor			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
49	Client Communication	37	4.51	0.09	6	4.00	0.26	0.51
89	Confidentiality and Privacy Laws	38	4.50	0.10	6	4.33	0.33	0.17
81	Code of Ethics	38	4.50	0.09	6	4.17	0.31	0.33
138	Hypoglycemia	43	4.49	0.10	6	4.17	0.31	0.32
70	Client Privacy	47	4.47	0.10	6	3.83	0.31	0.64
164	Mandatory Reporting	43	4.47	0.09	6	4.50	0.22	-0.03
245	Standard/Universal Precautions	26	4.46	0.13	6	4.17	0.31	0.29
51	Client Condition	39	4.46	0.10	6	4.17	0.40	0.29
52	Client Consent	46	4.46	0.09	6	4.17	0.31	0.29
67	Client Mental Status	39	4.46	0.10	6	4.17	0.31	0.29
244	Staff Safety	38	4.45	0.11	6	4.33	0.21	0.12
113	Emergency Procedures	31	4.45	0.12	6	3.83	0.31	0.62
248	Standards of Care	38	4.45	0.10	6	4.33	0.33	0.12
174	Medication Reconciliation	43	4.42	0.13	6	3.83	0.31	0.59
1	Abuse Prevention	39	4.41	0.15	6	4.33	0.49	0.08
46	Client Baseline Data	46	4.39	0.10	6	3.67	0.21	0.72
28	Blood Glucose Monitoring	45	4.38	0.10	6	4.17	0.31	0.21
42	Circulatory Checks	47	4.38	0.11	6	4.17	0.31	0.21
53	Client Disease Processes and Conditions	39	4.38	0.09	6	4.50	0.34	-0.12
221	Respiratory Interventions	26	4.38	0.12	6	4.50	0.34	-0.12
4	Acute Illness	46	4.37	0.11	6	4.33	0.21	0.04
99	De-escalation Techniques	38	4.37	0.12	6	3.83	0.17	0.54
207	Professional Accountability	26	4.35	0.16	6	4.33	0.33	0.02
237	Skin Integrity	26	4.35	0.12	6	4.33	0.21	0.02
112	Emergency Preparedness	43	4.35	0.11	6	3.83	0.31	0.52
7	Adult Client Care	38	4.34	0.11	6	4.17	0.17	0.17
60	Client Identification Methods	46	4.33	0.10	6	4.33	0.33	0.00
180	Neurological Checks	43	4.33	0.09	6	4.50	0.34	-0.17
69	Client Observation	39	4.33	0.09	6	4.33	0.33	0.00
137	Hyperglycemia	31	4.32	0.13	6	4.33	0.33	-0.01
227	Safe Health Care Environment	25	4.32	0.11	6	3.67	0.21	0.65
73	Client Risk Identification	38	4.32	0.12	6	4.33	0.33	-0.01
177	Narcotics/Controlled Substances	31	4.32	0.11	6	4.17	0.31	0.15
65	Client Medication History	38	4.32	0.13	6	4.50	0.34	-0.18
38	Chain of Command	47	4.32	0.09	6	4.00	0.26	0.32
242	Staff Competency	38	4.32	0.13	6	4.00	0.26	0.32

LPN/VN Supervisor and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisor			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
103	Diagnostic Test Results	31	4.32	0.13	6	4.17	0.31	0.15
31	Body Mechanics	39	4.31	0.11	6	3.83	0.31	0.48
229	Safety Checks	26	4.31	0.12	6	4.00	0.26	0.31
188	Oxygen Saturation Monitoring	43	4.30	0.10	6	4.67	0.21	-0.37
208	Professional Boundaries	39	4.28	0.12	6	4.17	0.31	0.11
58	Client History	47	4.28	0.10	6	3.50	0.22	0.78
21	Basic Cardiac Abnormalities	39	4.28	0.14	6	4.33	0.33	-0.05
190	Pain Management	43	4.26	0.09	6	4.33	0.21	-0.07
191	Pain Scales	31	4.26	0.11	6	4.17	0.17	0.09
83	Comfort Measures	38	4.26	0.12	6	3.50	0.22	0.76
80	Client-centered Care	46	4.26	0.11	6	4.00	0.26	0.26
3	Activities of Daily Living	39	4.26	0.13	6	3.50	0.43	0.76
270	Usage of Social Media with Respect to Client Information	38	4.24	0.14	6	3.50	0.34	0.74
216	Regulatory/Policy Compliance	38	4.24	0.12	6	4.17	0.31	0.07
24	Behavioral Management Techniques	46	4.24	0.11	6	3.50	0.22	0.74
50	Client Complication	47	4.23	0.11	6	4.17	0.31	0.06
199	Policies and Procedures	31	4.23	0.12	6	4.50	0.22	-0.27
173	Medication History	31	4.23	0.12	6	3.83	0.31	0.40
155	Intravenous Complications	31	4.23	0.17	6	4.17	0.31	0.06
23	Behavioral Management	39	4.23	0.12	6	3.50	0.22	0.73
47	Client Care Prioritization	39	4.21	0.11	6	3.67	0.42	0.54
43	Client Advocacy	39	4.21	0.10	6	3.33	0.42	0.88
202	Practice Error	39	4.21	0.12	6	4.33	0.33	-0.12
122	Fluid and Electrolyte Imbalance	43	4.21	0.14	6	4.50	0.34	-0.29
56	Client Evaluation	46	4.20	0.09	6	3.67	0.42	0.53
145	Informed Consent	31	4.19	0.12	6	4.33	0.33	-0.14
123	Fluid Balance	31	4.19	0.13	6	4.33	0.33	-0.14
148	Interdisciplinary Communication	43	4.19	0.10	6	3.50	0.22	0.69
151	Intervention Implementation	31	4.19	0.13	6	3.67	0.21	0.52
210	Protocols	39	4.18	0.11	6	4.00	0.26	0.18
48	Client Cognitive Ability	46	4.17	0.09	6	3.83	0.31	0.34
111	Electronic Medical Records (EMR)	31	4.16	0.14	6	3.83	0.31	0.33
147	Interdisciplinary Collaboration	31	4.16	0.14	6	3.33	0.21	0.83
66	Client Mental Competency	47	4.15	0.11	6	4.00	0.26	0.15
206	Privacy Practices	39	4.13	0.13	6	3.83	0.31	0.30
71	Client Psychosocial Needs	38	4.13	0.11	6	4.00	0.26	0.13

LPN/VN Supervisor and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisor			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
278	Wound Dressing Change	38	4.13	0.13	6	3.83	0.31	0.30
14	Appropriate Resources	46	4.13	0.11	6	3.67	0.42	0.46
236	Skin Care	38	4.11	0.11	6	3.67	0.33	0.44
41	Chronic Illness	38	4.11	0.10	6	4.00	0.26	0.11
91	Continuity of Care	38	4.11	0.13	6	3.67	0.21	0.44
220	Respiratory Disorders	39	4.10	0.11	6	4.33	0.33	-0.23
161	Laboratory Values	31	4.10	0.13	6	4.00	0.45	0.10
157	Intravenous Site Maintenance	31	4.10	0.16	6	4.17	0.31	-0.07
98	Data Collection	47	4.09	0.11	6	3.67	0.33	0.42
200	Polypharmacy	43	4.09	0.11	6	4.50	0.22	-0.41
166	Medical Equipment	43	4.09	0.10	6	3.67	0.21	0.42
82	Cognitive Impairment	47	4.09	0.10	6	3.67	0.21	0.42
247	Standardized Pain Scales	26	4.08	0.15	6	4.17	0.31	-0.09
57	Client Health History	39	4.08	0.10	6	4.00	0.26	0.08
235	Shift Report, Hand-off	26	4.08	0.12	6	4.17	0.17	-0.09
240	Specimen Collection	38	4.08	0.10	6	4.00	0.26	0.08
184	Nurse-Client Relationships	43	4.07	0.13	6	3.50	0.22	0.57
198	Plan of Care	43	4.07	0.12	6	3.67	0.21	0.40
136	High Risk Behaviors	43	4.07	0.12	6	3.50	0.22	0.57
8	Advance Directive	46	4.07	0.14	6	4.50	0.22	-0.43
149	Interdisciplinary Roles and Responsibilities	31	4.06	0.12	6	3.50	0.22	0.56
228	Safe Health Care Practice	38	4.05	0.15	6	4.00	0.26	0.05
97	Cultural Competency	38	4.05	0.11	6	3.83	0.31	0.22
128	Geriatric Client Care	43	4.05	0.12	6	4.33	0.21	-0.28
160	Laboratory Test Results	43	4.05	0.12	6	4.17	0.31	-0.12
192	Peripheral Intravenous Catheter Maintenance	43	4.05	0.13	6	4.00	0.37	0.05
280	Wound Types	38	4.05	0.13	6	4.17	0.31	-0.12
261	Time Management Skills/Techniques	26	4.04	0.16	6	3.67	0.21	0.37
209	Professional Development	26	4.04	0.15	6	3.83	0.31	0.21
167	Medical Procedures	31	4.03	0.14	6	3.83	0.17	0.20
146	Intake/Output	42	4.02	0.11	6	4.00	0.26	0.02
94	Coping Mechanisms	46	4.02	0.09	6	3.67	0.33	0.35
40	Chemical Toxicity	46	4.02	0.15	6	3.33	0.33	0.69
62	Client Knowledge Deficit	46	4.02	0.11	6	3.83	0.17	0.19
84	Communication Barriers	46	4.02	0.11	6	3.83	0.40	0.19
54	Client Education	47	4.00	0.08	6	3.67	0.21	0.33

LPN/VN Supervisor and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisor			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
142	Incision Care	43	4.00	0.09	6	4.17	0.31	-0.17
117	Evidence-based Practice	31	4.00	0.17	6	3.67	0.42	0.33
90	Conflict Resolution	46	4.00	0.09	6	3.50	0.22	0.50
63	Client Limitations	39	4.00	0.11	6	3.83	0.17	0.17
267	Urinary Catheter Maintenance	26	4.00	0.18	6	4.00	0.26	0.00
165	Measurement Conversions	31	4.00	0.17	6	3.33	0.56	0.67
223	Restraint Alternatives	24	4.00	0.18	6	4.00	0.26	0.00
20	Barriers to Learning	46	3.98	0.13	6	3.67	0.21	0.31
22	Behavioral Disorders	46	3.98	0.10	6	3.67	0.21	0.31
175	Mental Health Disorders	31	3.97	0.13	6	3.83	0.17	0.14
259	Therapeutic Communication	26	3.96	0.13	6	3.50	0.22	0.46
18	Assistive Devices for Medication Administration	47	3.96	0.13	6	4.33	0.21	-0.37
104	Diagnostic Values	44	3.93	0.12	6	4.00	0.26	-0.07
118	Evidence-based Practice Resources	43	3.93	0.12	6	3.50	0.34	0.43
45	Client Autonomy	37	3.92	0.14	6	4.17	0.31	-0.25
255	Supervision/Monitoring of Tasks Assigned	26	3.92	0.17	6	3.50	0.22	0.42
265	Transfusion Reaction	26	3.92	0.22	6	4.50	0.22	-0.58
272	Venipuncture	38	3.92	0.15	6	3.83	0.31	0.09
156	Intravenous Piggyback Medication	43	3.91	0.15	6	4.17	0.31	-0.26
30	Blood Product Transfusion	47	3.91	0.21	6	4.33	0.33	-0.42
141	Incident Report	31	3.90	0.13	6	4.17	0.31	-0.27
125	Follow-up with Clients	31	3.90	0.16	6	3.17	0.40	0.73
189	Pacemaker	31	3.90	0.14	6	4.17	0.31	-0.27
106	Discharge Process	43	3.88	0.11	6	3.33	0.33	0.55
129	Grieving Process	31	3.87	0.18	6	3.83	0.17	0.04
246	Standardized Orders	38	3.87	0.11	6	4.17	0.31	-0.30
17	Assistive Devices	38	3.87	0.13	6	4.17	0.31	-0.30
195	Personal Biases	31	3.87	0.13	6	3.83	0.40	0.04
196	Personal Limitations	43	3.86	0.11	6	3.67	0.33	0.19
253	Substance Withdrawal	26	3.85	0.15	6	4.00	0.45	-0.15
239	Specialty Diet	26	3.85	0.15	6	3.67	0.33	0.18
35	Care Plan	39	3.85	0.16	6	3.17	0.48	0.68
75	Client Self-advocacy	37	3.84	0.12	6	3.83	0.17	0.01
105	Disaster Drills	31	3.84	0.17	6	3.50	0.34	0.34
68	Client Nutrition	46	3.83	0.10	6	4.00	0.26	-0.17
102	Diagnostic Test Procedures	44	3.82	0.12	6	4.17	0.17	-0.35

LPN/VN Supervisor and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisor			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
19	Available Resources	39	3.82	0.14	6	3.50	0.34	0.32
126	Functional Status	43	3.81	0.11	6	3.67	0.42	0.14
32	Bowel Management Protocol	46	3.80	0.13	6	3.83	0.31	-0.03
100	Delegation	45	3.80	0.13	6	3.83	0.17	-0.03
268	Urinary Retention	38	3.79	0.13	6	4.17	0.31	-0.38
5	Adaptive Devices	39	3.79	0.12	6	3.50	0.34	0.29
55	Client Equipment	39	3.79	0.14	6	3.67	0.21	0.12
79	Client Weight	38	3.79	0.12	6	3.83	0.31	-0.04
264	Transfer Process	38	3.79	0.14	6	4.33	0.33	-0.54
254	Supervision/Monitoring of Assistive Personnel	37	3.78	0.15	6	3.50	0.22	0.28
64	Client Literacy	46	3.78	0.11	6	3.83	0.17	-0.05
176	Mobility Needs	43	3.77	0.12	6	3.83	0.17	-0.06
233	Sensory/Perceptual Alterations	26	3.77	0.17	6	3.67	0.33	0.10
243	Staff Education	26	3.77	0.14	6	4.17	0.17	-0.40
213	Quality Improvement	26	3.77	0.18	6	3.00	0.26	0.77
77	Client Stressors	37	3.76	0.11	6	3.33	0.21	0.43
152	Intervention Techniques	43	3.74	0.12	6	3.67	0.21	0.07
140	Immunizations	43	3.74	0.14	6	3.67	0.49	0.07
212	Psychosocial Functioning	39	3.74	0.14	6	3.17	0.31	0.57
256	Support Systems	38	3.74	0.13	6	3.50	0.22	0.24
108	Drainage Device	43	3.74	0.13	6	4.17	0.31	-0.43
87	Compression Stockings	38	3.74	0.12	6	3.83	0.40	-0.09
205	Preventative Care	25	3.72	0.17	6	3.67	0.21	0.05
162	Learning Barriers	43	3.72	0.11	6	3.83	0.31	-0.11
262	Tracheostomy	38	3.71	0.19	6	4.00	0.37	-0.29
182	Non Pharmacological Interventions	42	3.71	0.12	6	3.67	0.21	0.04
197	Physical Data Norms	31	3.71	0.16	6	3.83	0.31	-0.12
226	Risk Tools	38	3.71	0.14	6	3.67	0.33	0.04
76	Client Spiritual Beliefs	46	3.70	0.12	6	3.17	0.31	0.53
263	Transfer Assistive Devices	26	3.69	0.14	6	4.33	0.33	-0.64
214	Reality Orientation	39	3.69	0.13	6	3.33	0.56	0.36
266	Treatment Barriers	38	3.68	0.13	6	3.83	0.31	-0.15
224	Restraints	39	3.67	0.18	6	4.17	0.31	-0.50
110	Electrocardiogram	43	3.67	0.16	6	4.17	0.31	-0.50
158	Invasive Procedures	43	3.65	0.16	6	4.17	0.40	-0.52
124	Follow-up Care Accessibility	43	3.65	0.12	6	3.83	0.17	-0.18

LPN/VN Supervisor and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisor			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
193	Peripheral Intravenous Catheter Removal	31	3.65	0.19	6	3.67	0.33	-0.02
114	Enteral Tube Management	42	3.64	0.13	6	4.17	0.31	-0.53
26	Bladder Management Protocol	47	3.64	0.11	6	3.17	0.31	0.47
252	Substance Abuse Disorder	38	3.63	0.13	6	3.67	0.42	-0.04
134	Hearing Impairment	43	3.63	0.12	6	3.83	0.31	-0.20
116	Environmental Factors	43	3.63	0.11	6	3.17	0.31	0.46
238	Sleep Hygiene	38	3.61	0.14	6	3.83	0.31	-0.22
276	Warming Measures	38	3.61	0.14	6	3.83	0.31	-0.22
115	Enteral Tube Types	31	3.61	0.19	6	4.17	0.31	-0.56
6	Adolescent Client Care	48	3.60	0.15	6	3.50	0.50	0.10
86	Community Resources	47	3.60	0.12	6	3.17	0.31	0.43
274	Visual Impairment	38	3.58	0.13	6	4.00	0.26	-0.42
211	Psychological Evaluation	26	3.58	0.18	6	3.33	0.33	0.25
92	Continuous Suction of Nasogastric Tube	46	3.57	0.16	6	3.67	0.21	-0.10
260	Therapeutic Environment	37	3.57	0.13	6	3.50	0.22	0.07
178	Nasogastric Tube Maintenance	43	3.56	0.14	6	4.17	0.31	-0.61
37	Central Venous Catheter Management	39	3.56	0.20	6	3.50	0.56	0.06
95	Cost Effective Care	37	3.54	0.13	6	3.33	0.49	0.21
187	Ostomy Types	31	3.52	0.19	6	4.17	0.40	-0.65
25	Bladder Irrigation	39	3.51	0.19	6	3.33	0.42	0.18
251	Stressful Life Events	26	3.50	0.17	6	3.17	0.31	0.33
219	Resources	26	3.50	0.19	6	3.33	0.33	0.17
241	Spiritual Awareness	26	3.50	0.16	6	3.17	0.31	0.33
257	Surgical Procedure	26	3.50	0.23	6	4.00	0.37	-0.50
150	Intermittent Suction of Nasogastric Tube	43	3.49	0.14	6	3.83	0.31	-0.34
39	Chemical Dependency	39	3.49	0.15	6	3.33	0.33	0.16
27	Bladder Palpation Technique	39	3.49	0.18	6	3.17	0.31	0.32
179	Nasogastric Tube Types	31	3.48	0.18	6	4.33	0.33	-0.85
279	Wound Irrigation	26	3.46	0.19	6	3.83	0.31	-0.37
29	Blood Product	39	3.46	0.20	6	4.33	0.33	-0.87
36	Central Venous Catheter	46	3.46	0.18	6	3.50	0.56	-0.04
101	Developmental Stages	31	3.45	0.17	6	3.83	0.31	-0.38
185	Nutritional Norms	31	3.45	0.16	6	3.67	0.21	-0.22
133	Health Screening Programs	31	3.45	0.17	6	3.17	0.31	0.28
163	Life Transitions	30	3.43	0.15	6	3.67	0.33	-0.24
277	Wound Drainage Device Removal	26	3.42	0.22	6	4.00	0.37	-0.58

LPN/VN Supervisor and SME Knowledge Statement Ratings Rank Ordered by LPN/VN Supervisor Average Importance								
Survey Position #	Knowledge Statement	LPN/VN Supervisor			SME			Avg. Difference
		N	Avg.	Std. Err.	N	Avg.	Std. Err.	
154	Interviewing Skills	43	3.40	0.17	6	3.00	0.26	0.40
234	Sequential Compression Devices	38	3.39	0.17	6	3.83	0.31	-0.44
232	Seclusion	38	3.39	0.16	6	3.67	0.33	-0.28
258	Suture Removal	38	3.39	0.18	6	3.83	0.31	-0.44
93	Cooling Measures	38	3.39	0.13	6	3.17	0.31	0.22
135	Hemodialysis	31	3.39	0.21	6	4.00	0.37	-0.61
269	Usage of Social Media Related to Client Information	26	3.38	0.24	6	3.00	0.58	0.38
273	Ventilator	26	3.38	0.27	6	4.17	0.31	-0.79
127	Gender Identity	31	3.32	0.17	6	3.17	0.54	0.15
194	Peritoneal Dialysis	43	3.30	0.19	6	3.83	0.31	-0.53
120	Feeding Formula Types	43	3.30	0.14	6	4.17	0.31	-0.87
132	Health Promotion Programs	43	3.23	0.12	6	3.17	0.31	0.06
217	Relaxation Techniques	26	3.19	0.19	6	3.00	0.37	0.19
12	Alternative/Complementary Therapy	46	3.17	0.13	6	3.33	0.33	-0.16
249	Staple Removal	26	3.15	0.21	6	3.67	0.33	-0.52
230	School Age Client Care	38	3.13	0.16	6	3.50	0.43	-0.37
218	Reminiscence Therapy	39	3.13	0.15	6	2.83	0.31	0.30
119	Eye Irrigation	31	3.13	0.17	6	3.67	0.42	-0.54
271	Validation Therapy	26	3.12	0.19	6	3.33	0.21	-0.21
34	Care of Toddler Client through Two Years	47	3.11	0.17	6	3.17	0.54	-0.06
204	Preschool Client Care	39	3.05	0.18	6	3.50	0.43	-0.45
203	Prenatal Complication	26	3.04	0.29	6	3.83	0.40	-0.79
215	Referral	26	3.00	0.21	6	3.00	0.45	0.00
130	Group Session	42	2.90	0.14	6	3.17	0.48	-0.27
109	Ear Irrigation	31	2.84	0.21	6	3.50	0.43	-0.66
61	Client in Labor	39	2.82	0.23	6	4.17	0.48	-1.35
143	Infant Care	31	2.81	0.24	6	3.83	0.48	-1.02
13	Antepartum Client	38	2.79	0.22	6	3.67	0.42	-0.88
181	Newborn Client Care	31	2.77	0.24	6	4.00	0.37	-1.23
121	Fetal Heart Monitoring	31	2.71	0.25	6	4.00	0.52	-1.29
201	Postpartum Client	26	2.69	0.27	6	3.83	0.31	-1.14
183	Nose Irrigation	31	2.58	0.20	6	3.50	0.43	-0.92

APPENDIX G: 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	Difference	Difference
1	Abuse Prevention	271	4.62	0.04	30	4.60	0.12	39	4.41	0.15	0.02	0.21	0.19
2	Active Listening	259	4.71	0.03	54	4.67	0.07	47	4.70	0.09	0.04	0.01	-0.03
3	Activities of Daily Living	271	4.31	0.04	31	4.32	0.16	39	4.26	0.13	-0.01	0.05	0.06
4	Acute Illness	257	4.39	0.04	54	4.37	0.09	46	4.37	0.11	0.02	0.02	0.00
5	Adaptive Devices	270	4.07	0.05	31	4.03	0.15	39	3.79	0.12	0.04	0.28	0.24
6	Adolescent Client Care	258	3.79	0.07	54	3.70	0.09	48	3.60	0.15	0.09	0.19	0.10
7	Adult Client Care	272	4.46	0.04	31	4.55	0.14	38	4.34	0.11	-0.09	0.12	0.21
8	Advance Directive	257	4.06	0.06	54	3.87	0.13	46	4.07	0.14	0.19	-0.01	-0.20
9	Adverse Events	269	4.58	0.04	31	4.68	0.12	39	4.54	0.10	-0.10	0.04	0.14
10	Adverse Reactions	257	4.70	0.03	54	4.69	0.09	46	4.70	0.08	0.01	0.00	-0.01
11	Allergic Reactions	270	4.75	0.03	31	4.71	0.09	39	4.82	0.07	0.04	-0.07	-0.11
12	Alternative/Complementary Therapy	256	3.50	0.07	53	3.42	0.11	46	3.17	0.13	0.08	0.33	0.25
13	Antepartum Client	270	3.83	0.07	31	3.26	0.23	38	2.79	0.22	0.57	1.04	0.47
14	Appropriate Resources	255	4.15	0.05	53	4.02	0.11	46	4.13	0.11	0.13	0.02	-0.11
15	Aseptic Technique	270	4.66	0.04	31	4.81	0.07	39	4.67	0.08	-0.15	-0.01	0.14
16	Aspiration Precautions	255	4.69	0.05	53	4.66	0.08	46	4.63	0.10	0.03	0.06	0.03
17	Assistive Devices	269	3.98	0.05	31	3.87	0.17	38	3.87	0.13	0.11	0.11	0.00
18	Assistive Devices for Medication Administration	257	4.14	0.06	53	4.04	0.11	47	3.96	0.13	0.10	0.18	0.08
19	Available Resources	267	4.12	0.05	31	3.87	0.16	39	3.82	0.14	0.25	0.30	0.05
20	Barriers to Learning	257	3.93	0.06	53	3.98	0.10	46	3.98	0.13	-0.05	-0.05	0.00
21	Basic Cardiac Abnormalities	269	4.40	0.05	31	4.00	0.19	39	4.28	0.14	0.40	0.12	-0.28
22	Behavioral Disorders	254	4.07	0.05	53	3.94	0.10	46	3.98	0.10	0.13	0.09	-0.04
23	Behavioral Management	269	4.13	0.05	31	3.87	0.18	39	4.23	0.12	0.26	-0.10	-0.36
24	Behavioral Management Techniques	254	4.10	0.05	53	4.11	0.09	46	4.24	0.11	-0.01	-0.14	-0.13

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	Difference	Difference
25	Bladder Irrigation	269	3.88	0.06	31	3.06	0.24	39	3.51	0.19	0.82	0.37	-0.45
26	Bladder Management Protocol	254	3.93	0.06	53	3.98	0.11	47	3.64	0.11	-0.05	0.29	0.34
27	Bladder Palpation Technique	269	3.67	0.07	31	3.35	0.20	39	3.49	0.18	0.32	0.18	-0.14
28	Blood Glucose Monitoring	254	4.59	0.04	53	4.55	0.07	45	4.38	0.10	0.04	0.21	0.17
29	Blood Product	270	4.07	0.07	30	3.57	0.24	39	3.46	0.20	0.50	0.61	0.11
30	Blood Product Transfusion	253	4.12	0.08	53	3.91	0.15	47	3.91	0.21	0.21	0.21	0.00
31	Body Mechanics	268	4.22	0.05	30	4.50	0.14	39	4.31	0.11	-0.28	-0.09	0.19
32	Bowel Management Protocol	254	3.96	0.06	53	3.98	0.11	46	3.80	0.13	-0.02	0.16	0.18
33	Cardiopulmonary Resuscitation	267	4.77	0.04	31	4.71	0.09	39	4.95	0.04	0.06	-0.18	-0.24
34	Care of Toddler Client through Two Years	252	3.62	0.08	53	3.53	0.12	47	3.11	0.17	0.09	0.51	0.42
35	Care Plan	269	3.79	0.07	31	3.65	0.18	39	3.85	0.16	0.14	-0.06	-0.20
36	Central Venous Catheter	253	4.04	0.07	53	3.25	0.16	46	3.46	0.18	0.79	0.58	-0.21
37	Central Venous Catheter Management	269	4.00	0.07	30	3.03	0.25	39	3.56	0.20	0.97	0.44	-0.53
38	Chain of Command	255	3.93	0.06	53	4.26	0.09	47	4.32	0.09	-0.33	-0.39	-0.06
39	Chemical Dependency	267	3.93	0.06	30	3.63	0.16	39	3.49	0.15	0.30	0.44	0.14
40	Chemical Toxicity	253	4.26	0.06	53	4.04	0.13	46	4.02	0.15	0.22	0.24	0.02
41	Chronic Illness	266	4.16	0.05	30	4.23	0.15	38	4.11	0.10	-0.07	0.05	0.12
42	Circulatory Checks	252	4.42	0.05	53	4.53	0.10	47	4.38	0.11	-0.11	0.04	0.15
43	Client Advocacy	266	4.48	0.04	31	4.55	0.10	39	4.21	0.10	-0.07	0.27	0.34
44	Client Allergies	254	4.75	0.03	53	4.74	0.07	46	4.59	0.10	0.01	0.16	0.15
45	Client Autonomy	265	4.29	0.05	30	4.53	0.11	37	3.92	0.14	-0.24	0.37	0.61
46	Client Baseline Data	252	4.38	0.04	53	4.38	0.09	46	4.39	0.10	0.00	-0.01	-0.01
47	Client Care Prioritization	265	4.49	0.04	31	4.61	0.10	39	4.21	0.11	-0.12	0.28	0.40
48	Client Cognitive Ability	253	4.10	0.05	53	4.15	0.09	46	4.17	0.09	-0.05	-0.07	-0.02

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	Difference	Difference
49	Client Communication	266	4.43	0.04	30	4.53	0.10	37	4.51	0.09	-0.10	-0.08	0.02
50	Client Complication	254	4.30	0.05	53	4.30	0.10	47	4.23	0.11	0.00	0.07	0.07
51	Client Condition	263	4.54	0.04	31	4.65	0.11	39	4.46	0.10	-0.11	0.08	0.19
52	Client Consent	254	4.63	0.04	53	4.58	0.08	46	4.46	0.09	0.05	0.17	0.12
53	Client Disease Processes and Conditions	267	4.41	0.04	31	4.52	0.12	39	4.38	0.09	-0.11	0.03	0.14
54	Client Education	255	4.22	0.05	53	4.30	0.09	47	4.00	0.08	-0.08	0.22	0.30
55	Client Equipment	266	3.93	0.05	30	4.00	0.15	39	3.79	0.14	-0.07	0.14	0.21
56	Client Evaluation	254	4.39	0.04	53	4.32	0.09	46	4.20	0.09	0.07	0.19	0.12
57	Client Health History	265	4.30	0.05	31	4.32	0.13	39	4.08	0.10	-0.02	0.22	0.24
58	Client History	253	4.31	0.04	53	4.09	0.07	47	4.28	0.10	0.22	0.03	-0.19
59	Client Identification	264	4.66	0.04	31	4.87	0.06	39	4.64	0.09	-0.21	0.02	0.23
60	Client Identification Methods	253	4.50	0.04	53	4.75	0.06	46	4.33	0.10	-0.25	0.17	0.42
61	Client in Labor	263	3.93	0.07	31	3.39	0.23	39	2.82	0.23	0.54	1.11	0.57
62	Client Knowledge Deficit	254	4.11	0.05	53	4.02	0.10	46	4.02	0.11	0.09	0.09	0.00
63	Client Limitations	266	4.13	0.05	30	3.97	0.15	39	4.00	0.11	0.16	0.13	-0.03
64	Client Literacy	254	3.87	0.05	53	3.79	0.11	46	3.78	0.11	0.08	0.09	0.01
65	Client Medication History	267	4.42	0.04	30	4.30	0.16	38	4.32	0.13	0.12	0.10	-0.02
66	Client Mental Competency	253	4.18	0.05	53	4.00	0.10	47	4.15	0.11	0.18	0.03	-0.15
67	Client Mental Status	265	4.40	0.04	31	4.45	0.11	39	4.46	0.10	-0.05	-0.06	-0.01
68	Client Nutrition	255	4.22	0.05	53	4.17	0.09	46	3.83	0.10	0.05	0.39	0.34
69	Client Observation	264	4.28	0.05	30	4.40	0.11	39	4.33	0.09	-0.12	-0.05	0.07
70	Client Privacy	254	4.50	0.04	53	4.47	0.07	47	4.47	0.10	0.03	0.03	0.00
71	Client Psychosocial Needs	265	4.17	0.05	31	4.16	0.14	38	4.13	0.11	0.01	0.04	0.03
72	Client Rights	254	4.57	0.04	52	4.60	0.07	46	4.59	0.09	-0.03	-0.02	0.01

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	Difference	Difference
73	Client Risk Identification	266	4.35	0.05	30	4.33	0.15	38	4.32	0.12	0.02	0.03	0.01
74	Client Safety	252	4.81	0.03	53	4.79	0.06	46	4.76	0.08	0.02	0.05	0.03
75	Client Self-advocacy	264	4.08	0.05	31	3.87	0.14	37	3.84	0.12	0.21	0.24	0.03
76	Client Spiritual Beliefs	254	3.92	0.06	53	3.83	0.11	46	3.70	0.12	0.09	0.22	0.13
77	Client Stressors	266	3.98	0.05	31	3.97	0.14	37	3.76	0.11	0.01	0.22	0.21
78	Client Vital Signs	254	4.69	0.03	53	4.74	0.06	47	4.57	0.09	-0.05	0.12	0.17
79	Client Weight	264	3.80	0.06	31	3.87	0.19	38	3.79	0.12	-0.07	0.01	0.08
80	Client-centered Care	254	4.32	0.05	53	4.34	0.08	46	4.26	0.11	-0.02	0.06	0.08
81	Code of Ethics	267	4.40	0.04	31	4.77	0.08	38	4.50	0.09	-0.37	-0.10	0.27
82	Cognitive Impairment	253	4.12	0.05	53	4.02	0.09	47	4.09	0.10	0.10	0.03	-0.07
83	Comfort Measures	266	4.18	0.05	31	4.45	0.14	38	4.26	0.12	-0.27	-0.08	0.19
84	Communication Barriers	251	4.04	0.05	53	4.02	0.10	46	4.02	0.11	0.02	0.02	0.00
85	Communication Skills	267	4.50	0.04	30	4.60	0.10	38	4.55	0.09	-0.10	-0.05	0.05
86	Community Resources	251	3.73	0.06	52	3.62	0.10	47	3.60	0.12	0.11	0.13	0.02
87	Compression Stockings	262	3.80	0.06	31	3.55	0.19	38	3.74	0.12	0.25	0.06	-0.19
88	Confidentiality	253	4.62	0.04	52	4.71	0.06	46	4.70	0.08	-0.09	-0.08	0.01
89	Confidentiality and Privacy Laws	266	4.60	0.04	31	4.81	0.10	38	4.50	0.10	-0.21	0.10	0.31
90	Conflict Resolution	252	4.03	0.05	53	4.04	0.09	46	4.00	0.09	-0.01	0.03	0.04
91	Continuity of Care	265	4.21	0.05	31	4.16	0.15	38	4.11	0.13	0.05	0.10	0.05
92	Continuous Suction of Nasogastric Tube	255	3.99	0.07	54	3.94	0.13	46	3.57	0.16	0.05	0.42	0.37
93	Cooling Measures	262	3.71	0.06	31	3.35	0.17	38	3.39	0.13	0.36	0.32	-0.04
94	Coping Mechanisms	254	3.96	0.06	54	4.06	0.09	46	4.02	0.09	-0.10	-0.06	0.04
95	Cost Effective Care	264	3.58	0.06	31	3.26	0.17	37	3.54	0.13	0.32	0.04	-0.28
96	Critical Thinking	255	4.67	0.04	54	4.74	0.07	46	4.67	0.08	-0.07	0.00	0.07

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	Difference	Difference
97	Cultural Competency	265	4.11	0.05	31	4.32	0.13	38	4.05	0.11	-0.21	0.06	0.27
98	Data Collection	252	4.38	0.05	54	4.44	0.08	47	4.09	0.11	-0.06	0.29	0.35
99	De-escalation Techniques	265	4.31	0.05	31	3.97	0.17	38	4.37	0.12	0.34	-0.06	-0.40
100	Delegation	254	4.02	0.05	54	3.94	0.11	45	3.80	0.13	0.08	0.22	0.14
101	Developmental Stages	204	3.68	0.07	26	3.77	0.24	31	3.45	0.17	-0.09	0.23	0.32
102	Diagnostic Test Procedures	194	4.08	0.07	48	3.92	0.10	44	3.82	0.12	0.16	0.26	0.10
103	Diagnostic Test Results	202	4.32	0.06	26	4.00	0.17	31	4.32	0.13	0.32	0.00	-0.32
104	Diagnostic Values	193	4.21	0.07	48	4.06	0.09	44	3.93	0.12	0.15	0.28	0.13
105	Disaster Drills	203	3.93	0.07	26	3.58	0.24	31	3.84	0.17	0.35	0.09	-0.26
106	Discharge Process	190	3.63	0.08	48	3.77	0.10	43	3.88	0.11	-0.14	-0.25	-0.11
107	Documentation	203	4.67	0.04	26	4.62	0.12	31	4.58	0.10	0.05	0.09	0.04
108	Drainage Device	189	3.96	0.07	48	3.83	0.09	43	3.74	0.13	0.13	0.22	0.09
109	Ear Irrigation	203	3.32	0.08	26	2.42	0.22	31	2.84	0.21	0.90	0.48	-0.42
110	Electrocardiogram	192	4.03	0.08	48	3.73	0.12	43	3.67	0.16	0.30	0.36	0.06
111	Electronic Medical Records (EMR)	203	4.34	0.06	26	4.23	0.18	31	4.16	0.14	0.11	0.18	0.07
112	Emergency Preparedness	192	4.53	0.06	48	4.02	0.14	43	4.35	0.11	0.51	0.18	-0.33
113	Emergency Procedures	203	4.52	0.05	26	4.42	0.13	31	4.45	0.12	0.10	0.07	-0.03
114	Enteral Tube Management	190	4.19	0.07	48	4.08	0.11	42	3.64	0.13	0.11	0.55	0.44
115	Enteral Tube Types	203	4.02	0.07	26	3.27	0.22	31	3.61	0.19	0.75	0.41	-0.34
116	Environmental Factors	193	3.83	0.07	48	3.73	0.11	43	3.63	0.11	0.10	0.20	0.10
117	Evidence-based Practice	203	4.18	0.06	26	4.12	0.17	31	4.00	0.17	0.06	0.18	0.12
118	Evidence-based Practice Resources	191	4.04	0.07	48	3.81	0.11	43	3.93	0.12	0.23	0.11	-0.12
119	Eye Irrigation	202	3.53	0.08	26	2.81	0.21	31	3.13	0.17	0.72	0.40	-0.32
120	Feeding Formula Types	191	3.83	0.08	48	3.56	0.13	43	3.30	0.14	0.27	0.53	0.26

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	Difference	Difference
121	Fetal Heart Monitoring	201	3.93	0.09	26	2.96	0.26	31	2.71	0.25	0.97	1.22	0.25
122	Fluid and Electrolyte Imbalance	191	4.49	0.05	48	4.46	0.08	43	4.21	0.14	0.03	0.28	0.25
123	Fluid Balance	201	4.48	0.05	26	4.31	0.14	31	4.19	0.13	0.17	0.29	0.12
124	Follow-up Care Accessibility	191	3.93	0.07	48	3.79	0.10	43	3.65	0.12	0.14	0.28	0.14
125	Follow-up with Clients	202	3.96	0.06	26	4.00	0.17	31	3.90	0.16	-0.04	0.06	0.10
126	Functional Status	191	4.13	0.06	48	4.06	0.11	43	3.81	0.11	0.07	0.32	0.25
127	Gender Identity	203	3.40	0.09	25	3.32	0.26	31	3.32	0.17	0.08	0.08	0.00
128	Geriatric Client Care	192	4.27	0.06	48	4.31	0.10	43	4.05	0.12	-0.04	0.22	0.26
129	Grieving Process	202	3.96	0.06	25	4.24	0.14	31	3.87	0.18	-0.28	0.09	0.37
130	Group Session	190	3.24	0.09	48	3.19	0.12	42	2.90	0.14	0.05	0.34	0.29
131	Health Care Provider's Orders	202	4.62	0.04	26	4.69	0.12	31	4.58	0.12	-0.07	0.04	0.11
132	Health Promotion Programs	190	3.56	0.08	48	3.63	0.11	43	3.23	0.12	-0.07	0.33	0.40
133	Health Screening Programs	203	3.81	0.06	26	3.69	0.21	31	3.45	0.17	0.12	0.36	0.24
134	Hearing Impairment	191	3.88	0.07	48	3.79	0.11	43	3.63	0.12	0.09	0.25	0.16
135	Hemodialysis	203	4.09	0.08	26	3.12	0.22	31	3.39	0.21	0.97	0.70	-0.27
136	High Risk Behaviors	189	4.25	0.06	48	4.06	0.10	43	4.07	0.12	0.19	0.18	-0.01
137	Hyperglycemia	203	4.57	0.04	26	4.58	0.10	31	4.32	0.13	-0.01	0.25	0.26
138	Hypoglycemia	191	4.73	0.04	48	4.77	0.06	43	4.49	0.10	-0.04	0.24	0.28
139	Hypoxia	203	4.71	0.04	26	4.65	0.12	31	4.61	0.10	0.06	0.10	0.04
140	Immunizations	191	3.94	0.07	48	3.94	0.11	43	3.74	0.14	0.00	0.20	0.20
141	Incident Report	203	4.18	0.06	26	4.08	0.23	31	3.90	0.13	0.10	0.28	0.18
142	Incision Care	188	4.38	0.05	48	4.17	0.08	43	4.00	0.09	0.21	0.38	0.17
143	Infant Care	201	3.84	0.09	26	3.35	0.28	31	2.81	0.24	0.49	1.03	0.54
144	Infection Control	188	4.79	0.03	48	4.90	0.04	43	4.67	0.09	-0.11	0.12	0.23

Knowledge Statements Subgroup Analysis: Primary Job Title													
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		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
145	Informed Consent	203	4.41	0.06	26	4.58	0.14	31	4.19	0.12	-0.17	0.22	0.39
146	Intake/Output	189	4.25	0.06	48	4.29	0.07	42	4.02	0.11	-0.04	0.23	0.27
147	Interdisciplinary Collaboration	203	3.99	0.06	26	4.00	0.18	31	4.16	0.14	-0.01	-0.17	-0.16
148	Interdisciplinary Communication	187	4.00	0.06	48	4.23	0.10	43	4.19	0.10	-0.23	-0.19	0.04
149	Interdisciplinary Roles and Responsibilities	203	3.99	0.06	26	3.62	0.22	31	4.06	0.12	0.37	-0.07	-0.44
150	Intermittent Suction of Nasogastric Tube	189	4.15	0.07	48	3.90	0.12	43	3.49	0.14	0.25	0.66	0.41
151	Intervention Implementation	203	4.09	0.06	26	4.00	0.16	31	4.19	0.13	0.09	-0.10	-0.19
152	Intervention Techniques	189	4.15	0.06	48	4.08	0.10	43	3.74	0.12	0.07	0.41	0.34
153	Interventions to Life-threatening Situations	202	4.65	0.05	26	4.81	0.08	31	4.68	0.10	-0.16	-0.03	0.13
154	Interviewing Skills	187	3.65	0.08	47	3.74	0.13	43	3.40	0.17	-0.09	0.25	0.34
155	Intravenous Complications	203	4.34	0.07	26	3.92	0.25	31	4.23	0.17	0.42	0.11	-0.31
156	Intravenous Piggyback Medication	190	4.17	0.08	48	3.94	0.14	43	3.91	0.15	0.23	0.26	0.03
157	Intravenous Site Maintenance	203	4.19	0.07	26	3.88	0.20	31	4.10	0.16	0.31	0.09	-0.22
158	Invasive Procedures	189	4.14	0.08	47	3.89	0.13	43	3.65	0.16	0.25	0.49	0.24
159	Isolation Precautions	201	4.45	0.05	26	4.54	0.15	31	4.52	0.15	-0.09	-0.07	0.02
160	Laboratory Test Results	189	4.39	0.06	48	4.19	0.11	43	4.05	0.12	0.20	0.34	0.14
161	Laboratory Values	202	4.37	0.05	26	3.96	0.22	31	4.10	0.13	0.41	0.27	-0.14
162	Learning Barriers	189	3.86	0.07	48	3.79	0.11	43	3.72	0.11	0.07	0.14	0.07
163	Life Transitions	202	3.75	0.07	26	3.77	0.18	30	3.43	0.15	-0.02	0.32	0.34
164	Mandatory Reporting	187	4.43	0.06	48	4.40	0.09	43	4.47	0.09	0.03	-0.04	-0.07
165	Measurement Conversions	202	3.95	0.08	26	3.88	0.22	31	4.00	0.17	0.07	-0.05	-0.12
166	Medical Equipment	188	4.24	0.06	48	4.02	0.12	43	4.09	0.10	0.22	0.15	-0.07
167	Medical Procedures	203	4.17	0.06	26	3.77	0.19	31	4.03	0.14	0.40	0.14	-0.26
168	Medication	190	4.81	0.03	48	4.83	0.06	43	4.74	0.08	-0.02	0.07	0.09

Knowledge Statements Subgroup Analysis: Primary Job Title													
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		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
169	Medication Administration Routes	202	4.59	0.05	26	4.62	0.16	31	4.55	0.09	-0.03	0.04	0.07
170	Medication Administration Rights	189	4.70	0.05	48	4.79	0.07	43	4.74	0.08	-0.09	-0.04	0.05
171	Medication Administration Safety	203	4.79	0.03	26	4.88	0.08	30	4.83	0.07	-0.09	-0.04	0.05
172	Medication Administration Calculations	188	4.66	0.06	48	4.81	0.06	43	4.65	0.09	-0.15	0.01	0.16
173	Medication History	201	4.26	0.06	26	4.15	0.19	31	4.23	0.12	0.11	0.03	-0.08
174	Medication Reconciliation	189	4.40	0.06	48	4.33	0.12	43	4.42	0.13	0.07	-0.02	-0.09
175	Mental Health Disorders	201	4.18	0.05	26	3.88	0.14	31	3.97	0.13	0.30	0.21	-0.09
176	Mobility Needs	189	4.07	0.06	48	4.19	0.08	43	3.77	0.12	-0.12	0.30	0.42
177	Narcotics/Controlled Substances	202	4.51	0.05	26	4.31	0.15	31	4.32	0.11	0.20	0.19	-0.01
178	Nasogastric Tube Maintenance	186	4.09	0.07	48	3.92	0.11	43	3.56	0.14	0.17	0.53	0.36
179	Nasogastric Tube Types	203	3.85	0.08	26	3.31	0.23	31	3.48	0.18	0.54	0.37	-0.17
180	Neurological Checks	188	4.49	0.05	48	4.40	0.08	43	4.33	0.09	0.09	0.16	0.07
181	Newborn Client Care	202	3.77	0.09	26	3.31	0.28	31	2.77	0.24	0.46	1.00	0.54
182	Non Pharmacological Interventions	189	3.87	0.07	48	4.02	0.10	42	3.71	0.12	-0.15	0.16	0.31
183	Nose Irrigation	203	3.25	0.08	26	2.54	0.24	31	2.58	0.20	0.71	0.67	-0.04
184	Nurse-Client Relationships	190	4.28	0.05	48	4.35	0.09	43	4.07	0.13	-0.07	0.21	0.28
185	Nutritional Norms	202	3.68	0.07	26	3.73	0.19	31	3.45	0.16	-0.05	0.23	0.28
186	Order Verification	188	4.65	0.05	48	4.58	0.09	42	4.62	0.08	0.07	0.03	-0.04
187	Ostomy Types	203	3.77	0.07	25	3.20	0.23	31	3.52	0.19	0.57	0.25	-0.32
188	Oxygen Saturation Monitoring	190	4.57	0.05	48	4.52	0.07	43	4.30	0.10	0.05	0.27	0.22
189	Pacemaker	202	4.11	0.07	26	3.23	0.22	31	3.90	0.14	0.88	0.21	-0.67
190	Pain Management	189	4.40	0.05	48	4.50	0.10	43	4.26	0.09	-0.10	0.14	0.24
191	Pain Scales	201	4.17	0.06	24	4.50	0.15	31	4.26	0.11	-0.33	-0.09	0.24
192	Peripheral Intravenous Catheter Maintenance	190	4.29	0.07	48	4.08	0.13	43	4.05	0.13	0.21	0.24	0.03

Knowledge Statements Subgroup Analysis: Primary Job Title													
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		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
193	Peripheral Intravenous Catheter Removal	203	3.99	0.08	26	3.12	0.28	31	3.65	0.19	0.87	0.34	-0.53
194	Peritoneal Dialysis	186	4.12	0.07	48	3.60	0.15	43	3.30	0.19	0.52	0.82	0.30
195	Personal Biases	202	3.42	0.09	26	3.81	0.25	31	3.87	0.13	-0.39	-0.45	-0.06
196	Personal Limitations	188	4.07	0.06	48	4.13	0.11	43	3.86	0.11	-0.06	0.21	0.27
197	Physical Data Norms	203	3.77	0.07	25	3.92	0.18	31	3.71	0.16	-0.15	0.06	0.21
198	Plan of Care	189	4.20	0.06	47	4.11	0.11	43	4.07	0.12	0.09	0.13	0.04
199	Policies and Procedures	202	4.26	0.06	26	4.23	0.17	31	4.23	0.12	0.03	0.03	0.00
200	Polypharmacy	190	4.24	0.07	48	4.29	0.10	43	4.09	0.11	-0.05	0.15	0.20
201	Postpartum Client	163	3.82	0.10	26	3.42	0.26	26	2.69	0.27	0.40	1.13	0.73
202	Practice Error	160	4.44	0.07	47	4.55	0.08	39	4.21	0.12	-0.11	0.23	0.34
203	Prenatal Complication	163	3.99	0.10	26	3.62	0.24	26	3.04	0.29	0.37	0.95	0.58
204	Preschool Client Care	159	3.55	0.10	47	3.36	0.12	39	3.05	0.18	0.19	0.50	0.31
205	Preventative Care	163	4.07	0.07	26	4.19	0.15	25	3.72	0.17	-0.12	0.35	0.47
206	Privacy Practices	161	4.34	0.06	47	4.19	0.11	39	4.13	0.13	0.15	0.21	0.06
207	Professional Accountability	163	4.30	0.06	26	4.58	0.11	26	4.35	0.16	-0.28	-0.05	0.23
208	Professional Boundaries	160	4.31	0.07	47	4.47	0.09	39	4.28	0.12	-0.16	0.03	0.19
209	Professional Development	163	4.13	0.07	26	4.04	0.14	26	4.04	0.15	0.09	0.09	0.00
210	Protocols	160	4.38	0.06	47	4.26	0.10	39	4.18	0.11	0.12	0.20	0.08
211	Psychological Evaluation	163	4.04	0.07	26	3.73	0.14	26	3.58	0.18	0.31	0.46	0.15
212	Psychosocial Functioning	160	4.01	0.08	47	3.87	0.11	39	3.74	0.14	0.14	0.27	0.13
213	Quality Improvement	163	3.96	0.07	26	3.69	0.21	26	3.77	0.18	0.27	0.19	-0.08
214	Reality Orientation	159	3.95	0.08	47	3.85	0.10	39	3.69	0.13	0.10	0.26	0.16
215	Referral	163	3.52	0.09	26	3.58	0.19	26	3.00	0.21	-0.06	0.52	0.58
216	Regulatory/Policy Compliance	160	4.17	0.07	47	4.11	0.11	38	4.24	0.12	0.06	-0.07	-0.13

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		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
217	Relaxation Techniques	163	3.78	0.07	26	3.81	0.18	26	3.19	0.19	-0.03	0.59	0.62
218	Reminiscence Therapy	160	3.56	0.09	47	3.00	0.14	39	3.13	0.15	0.56	0.43	-0.13
219	Resources	163	4.01	0.06	26	3.88	0.21	26	3.50	0.19	0.13	0.51	0.38
220	Respiratory Disorders	159	4.60	0.05	47	4.34	0.09	39	4.10	0.11	0.26	0.50	0.24
221	Respiratory Interventions	161	4.65	0.05	26	4.38	0.18	26	4.38	0.12	0.27	0.27	0.00
222	Responses to Life-threatening Situations	158	4.78	0.04	47	4.64	0.08	39	4.64	0.09	0.14	0.14	0.00
223	Restraint Alternatives	163	3.91	0.07	26	3.88	0.20	24	4.00	0.18	0.03	-0.09	-0.12
224	Restraints	159	3.77	0.09	47	4.26	0.10	39	3.67	0.18	-0.49	0.10	0.59
225	Rights of Medication Administration	163	4.71	0.04	26	4.73	0.13	26	4.62	0.14	-0.02	0.09	0.11
226	Risk Tools	160	4.03	0.08	47	3.81	0.13	38	3.71	0.14	0.22	0.32	0.10
227	Safe Health Care Environment	162	4.55	0.05	26	4.42	0.16	25	4.32	0.11	0.13	0.23	0.10
228	Safe Health Care Practice	160	4.56	0.05	47	4.38	0.10	38	4.05	0.15	0.18	0.51	0.33
229	Safety Checks	163	4.52	0.06	26	4.46	0.15	26	4.31	0.12	0.06	0.21	0.15
230	School Age Client Care	160	3.62	0.09	47	3.38	0.11	38	3.13	0.16	0.24	0.49	0.25
231	Scope of Practice	162	4.62	0.05	26	4.65	0.12	26	4.62	0.11	-0.03	0.00	0.03
232	Seclusion	159	3.69	0.09	47	3.77	0.14	38	3.39	0.16	-0.08	0.30	0.38
233	Sensory/Perceptual Alterations	163	4.02	0.06	26	3.85	0.18	26	3.77	0.17	0.17	0.25	0.08
234	Sequential Compression Devices	159	4.02	0.08	47	3.89	0.10	38	3.39	0.17	0.13	0.63	0.50
235	Shift Report, Hand-Off	163	4.38	0.05	26	4.27	0.17	26	4.08	0.12	0.11	0.30	0.19
236	Skin Care	161	4.38	0.06	47	4.40	0.08	38	4.11	0.11	-0.02	0.27	0.29
237	Skin Integrity	163	4.45	0.05	26	4.12	0.19	26	4.35	0.12	0.33	0.10	-0.23
238	Sleep Hygiene	160	3.90	0.08	47	3.72	0.10	38	3.61	0.14	0.18	0.29	0.11
239	Specialty Diet	163	4.07	0.07	25	3.84	0.20	26	3.85	0.15	0.23	0.22	-0.01
240	Specimen Collection	161	4.30	0.06	47	4.00	0.11	38	4.08	0.10	0.30	0.22	-0.08

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		N	Avg.	Std. Err.	N	Avg.	Std. Err.	N	Avg.	Std. Err.	Difference	Difference	Difference
241	Spiritual Awareness	163	3.65	0.08	26	3.77	0.18	26	3.50	0.16	-0.12	0.15	0.27
242	Staff Competency	159	4.30	0.07	47	4.23	0.10	38	4.32	0.13	0.07	-0.02	-0.09
243	Staff Education	163	4.17	0.06	26	3.69	0.19	26	3.77	0.14	0.48	0.40	-0.08
244	Staff Safety	158	4.53	0.06	47	4.47	0.10	38	4.45	0.11	0.06	0.08	0.02
245	Standard/Universal Precautions	162	4.51	0.05	26	4.81	0.08	26	4.46	0.13	-0.30	0.05	0.35
246	Standardized Orders	161	4.24	0.06	47	3.96	0.11	38	3.87	0.11	0.28	0.37	0.09
247	Standardized Pain Scales	163	4.02	0.06	26	4.35	0.14	26	4.08	0.15	-0.33	-0.06	0.27
248	Standards of Care	160	4.43	0.05	47	4.40	0.08	38	4.45	0.10	0.03	-0.02	-0.05
249	Staple Removal	163	3.51	0.09	26	2.85	0.21	26	3.15	0.21	0.66	0.36	-0.30
250	Sterile Technique	160	4.68	0.05	47	4.55	0.08	38	4.66	0.09	0.13	0.02	-0.11
251	Stressful Life Events	162	3.77	0.08	26	3.96	0.17	26	3.50	0.17	-0.19	0.27	0.46
252	Substance Abuse Disorder	160	4.13	0.07	47	3.87	0.13	38	3.63	0.13	0.26	0.50	0.24
253	Substance Withdrawal	163	4.10	0.08	26	3.92	0.17	26	3.85	0.15	0.18	0.25	0.07
254	Supervision/Monitoring of Assistive Personnel	160	4.11	0.07	47	4.00	0.10	37	3.78	0.15	0.11	0.33	0.22
255	Supervision/Monitoring of Tasks Assigned	162	4.02	0.07	26	4.12	0.15	26	3.92	0.17	-0.10	0.10	0.20
256	Support Systems	160	3.99	0.08	47	3.83	0.11	38	3.74	0.13	0.16	0.25	0.09
257	Surgical Procedure	162	3.98	0.09	26	3.27	0.24	26	3.50	0.23	0.71	0.48	-0.23
258	Suture Removal	159	3.79	0.08	46	3.41	0.16	38	3.39	0.18	0.38	0.40	0.02
259	Therapeutic Communication	163	4.17	0.06	26	4.54	0.11	26	3.96	0.13	-0.37	0.21	0.58
260	Therapeutic Environment	159	3.94	0.08	47	3.91	0.11	37	3.57	0.13	0.03	0.37	0.34
261	Time Management Skills/Techniques	163	4.23	0.06	26	4.38	0.16	26	4.04	0.16	-0.15	0.19	0.34
262	Tracheostomy	160	4.35	0.07	47	4.04	0.13	38	3.71	0.19	0.31	0.64	0.33
263	Transfer Assistive Devices	163	3.96	0.07	26	3.85	0.21	26	3.69	0.14	0.11	0.27	0.16
264	Transfer Process	161	4.06	0.07	47	3.72	0.10	38	3.79	0.14	0.34	0.27	-0.07

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	Difference	Difference
265	Transfusion Reaction	161	4.44	0.08	26	4.04	0.25	26	3.92	0.22	0.40	0.52	0.12
266	Treatment Barriers	159	4.06	0.07	47	3.83	0.09	38	3.68	0.13	0.23	0.38	0.15
267	Urinary Catheter Maintenance	163	4.28	0.06	26	3.96	0.20	26	4.00	0.18	0.32	0.28	-0.04
268	Urinary Retention	161	4.42	0.06	47	4.19	0.11	38	3.79	0.13	0.23	0.63	0.40
269	Usage of Social Media Related to Client Information	163	3.70	0.11	26	4.08	0.23	26	3.38	0.24	-0.38	0.32	0.70
270	Usage of Social Media with Respect to Client Information	159	4.07	0.09	46	4.15	0.14	38	4.24	0.14	-0.08	-0.17	-0.09
271	Validation Therapy	163	3.63	0.08	26	3.38	0.24	26	3.12	0.19	0.25	0.51	0.26
272	Venipuncture	159	4.07	0.09	47	3.64	0.13	38	3.92	0.15	0.43	0.15	-0.28
273	Ventilator	163	4.17	0.09	26	3.04	0.25	26	3.38	0.27	1.13	0.79	-0.34
274	Visual Impairment	158	4.03	0.07	47	3.83	0.11	38	3.58	0.13	0.20	0.45	0.25
275	Vital Signs	163	4.69	0.04	26	4.69	0.11	26	4.58	0.10	0.00	0.11	0.11
276	Warming Measures	160	3.94	0.09	47	3.70	0.14	38	3.61	0.14	0.24	0.33	0.09
277	Wound Drainage Device Removal	163	4.01	0.08	26	3.23	0.28	26	3.42	0.22	0.78	0.59	-0.19
278	Wound Dressing Change	161	4.45	0.06	47	4.15	0.11	38	4.13	0.13	0.30	0.32	0.02
279	Wound Irrigation	162	4.01	0.08	26	3.73	0.20	26	3.46	0.19	0.28	0.55	0.27
280	Wound Types	160	4.41	0.06	47	3.98	0.10	38	4.05	0.13	0.43	0.36	-0.07

APPENDIX H: 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	Abuse Prevention	42	4.26	0.14	92	4.66	0.06	51	4.59	0.12	23	4.74	0.11
2	Active Listening	64	4.72	0.06	99	4.62	0.07	57	4.72	0.06	30	4.80	0.07
3	Activities of Daily Living	42	4.43	0.11	92	4.37	0.07	51	4.27	0.09	24	4.17	0.13
4	Acute Illness	64	4.42	0.08	96	4.30	0.07	57	4.46	0.09	30	4.63	0.10
5	Adaptive Devices	42	4.05	0.13	91	4.10	0.08	51	3.96	0.10	24	3.79	0.18
6	Adolescent Client Care	64	3.70	0.10	98	3.49	0.12	57	3.89	0.10	30	4.17	0.13
7	Adult Client Care	42	4.55	0.12	92	4.48	0.07	51	4.29	0.10	24	4.42	0.18
8	Advance Directive	65	3.91	0.10	96	4.22	0.09	57	4.02	0.14	30	4.07	0.22
9	Adverse Events	42	4.62	0.10	91	4.59	0.06	51	4.69	0.08	24	4.96	0.04
10	Adverse Reactions	64	4.64	0.08	96	4.76	0.05	56	4.71	0.07	30	4.77	0.11
11	Allergic Reactions	42	4.76	0.07	92	4.79	0.05	51	4.78	0.07	24	4.88	0.09
12	Alternative/Complementary Therapy	64	3.19	0.11	96	3.35	0.11	57	3.75	0.12	30	3.70	0.18
13	Antepartum Client	42	3.40	0.18	92	3.62	0.15	51	3.94	0.15	24	3.58	0.24
14	Appropriate Resources	63	4.13	0.09	97	4.08	0.09	57	4.28	0.09	29	4.21	0.16
15	Aseptic Technique	42	4.81	0.08	92	4.62	0.08	51	4.73	0.07	24	4.63	0.16
16	Aspiration Precautions	64	4.59	0.10	96	4.71	0.07	57	4.79	0.06	30	4.83	0.07
17	Assistive Devices	42	3.95	0.13	91	4.03	0.09	51	3.96	0.11	24	3.79	0.18
18	Assistive Devices for Medication Administration	64	3.91	0.11	97	4.14	0.10	57	4.19	0.11	30	4.23	0.16
19	Available Resources	42	4.05	0.14	91	4.02	0.10	51	4.02	0.11	24	3.88	0.17
20	Barriers to Learning	64	3.84	0.11	97	3.84	0.10	57	3.96	0.11	30	4.30	0.12
21	Basic Cardiac Abnormalities	42	4.60	0.09	92	4.30	0.10	51	4.29	0.11	23	4.13	0.23
22	Behavioral Disorders	63	3.92	0.09	97	4.04	0.09	56	4.07	0.10	30	4.10	0.15
23	Behavioral Management	42	3.90	0.15	92	4.17	0.08	51	4.08	0.10	24	4.21	0.18
24	Behavioral Management Techniques	64	4.05	0.11	97	4.22	0.08	56	4.11	0.11	30	4.07	0.14

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.
25	Bladder Irrigation	42	3.19	0.17	92	3.88	0.12	51	3.80	0.16	24	3.79	0.22
26	Bladder Management Protocol	64	3.83	0.10	96	3.90	0.09	57	3.96	0.12	30	4.10	0.16
27	Bladder Palpation Technique	42	3.29	0.17	92	3.68	0.12	51	3.75	0.16	24	3.46	0.23
28	Blood Glucose Monitoring	64	4.48	0.08	96	4.64	0.06	57	4.54	0.07	30	4.67	0.10
29	Blood Product	42	4.00	0.18	92	3.85	0.14	50	4.24	0.16	24	3.75	0.25
30	Blood Product Transfusion	63	4.24	0.13	96	4.04	0.14	57	3.88	0.19	30	4.13	0.23
31	Body Mechanics	41	4.29	0.14	91	4.25	0.09	51	4.27	0.10	24	4.13	0.17
32	Bowel Management Protocol	65	3.80	0.11	96	4.07	0.08	57	4.02	0.11	30	4.00	0.18
33	Cardiopulmonary Resuscitation	42	4.88	0.06	92	4.82	0.05	51	4.88	0.07	24	4.38	0.21
34	Care of Toddler Client through Two Years	64	3.61	0.12	94	3.36	0.14	57	3.65	0.14	30	3.70	0.22
35	Care Plan	42	3.64	0.16	92	3.87	0.11	51	3.76	0.17	24	3.67	0.21
36	Central Venous Catheter	65	3.72	0.15	96	4.07	0.10	57	3.82	0.16	30	3.83	0.26
37	Central Venous Catheter Management	41	3.63	0.19	91	3.87	0.12	51	3.98	0.17	24	3.88	0.26
38	Chain of Command	65	4.12	0.09	96	3.96	0.10	57	4.05	0.10	30	4.23	0.16
39	Chemical Dependency	41	3.76	0.16	92	3.76	0.11	51	3.86	0.13	24	3.92	0.20
40	Chemical Toxicity	64	4.09	0.13	95	4.26	0.10	57	4.37	0.11	30	4.20	0.18
41	Chronic Illness	42	4.07	0.12	92	4.24	0.07	48	4.17	0.08	24	4.00	0.20
42	Circulatory Checks	64	4.50	0.09	96	4.46	0.08	57	4.49	0.08	30	4.60	0.16
43	Client Advocacy	42	4.45	0.10	92	4.45	0.07	51	4.39	0.09	24	4.46	0.12
44	Client Allergies	65	4.66	0.08	95	4.78	0.05	57	4.79	0.07	30	4.83	0.07
45	Client Autonomy	42	4.26	0.12	91	4.31	0.09	50	4.26	0.12	24	4.25	0.14
46	Client Baseline Data	64	4.44	0.08	95	4.39	0.07	57	4.46	0.08	29	4.48	0.13
47	Client Care Prioritization	42	4.62	0.08	91	4.46	0.07	51	4.43	0.08	24	4.58	0.10
48	Client Cognitive Ability	64	4.13	0.09	95	4.09	0.08	57	4.30	0.09	30	4.30	0.14

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.
49	Client Communication	42	4.45	0.08	92	4.48	0.06	50	4.50	0.07	24	4.38	0.12
50	Client Complication	64	4.31	0.09	96	4.27	0.08	57	4.35	0.10	30	4.43	0.16
51	Client Condition	42	4.60	0.08	90	4.60	0.06	51	4.51	0.09	24	4.38	0.17
52	Client Consent	65	4.54	0.07	96	4.70	0.05	57	4.72	0.06	30	4.63	0.12
53	Client Disease Processes and Conditions	42	4.55	0.08	92	4.41	0.07	51	4.39	0.08	24	4.33	0.17
54	Client Education	65	4.11	0.09	96	4.07	0.09	57	4.33	0.09	30	4.47	0.11
55	Client Equipment	41	3.90	0.14	92	3.98	0.08	51	3.90	0.09	24	3.83	0.20
56	Client Evaluation	64	4.28	0.08	96	4.45	0.07	57	4.35	0.07	30	4.33	0.15
57	Client Health History	42	4.36	0.10	91	4.12	0.09	51	4.33	0.11	24	4.46	0.13
58	Client History	64	4.20	0.08	96	4.28	0.07	57	4.30	0.08	30	4.43	0.12
59	Client Identification	42	4.74	0.09	92	4.67	0.07	50	4.70	0.09	24	4.83	0.12
60	Client Identification Methods	63	4.60	0.07	96	4.51	0.07	57	4.58	0.07	30	4.63	0.14
61	Client in Labor	42	3.43	0.19	90	3.67	0.15	51	4.02	0.15	24	3.83	0.26
62	Client Knowledge Deficit	65	4.05	0.08	96	4.04	0.08	57	4.12	0.09	30	4.17	0.17
63	Client Limitations	42	4.14	0.13	92	4.05	0.08	50	4.04	0.10	24	4.08	0.16
64	Client Literacy	64	3.83	0.09	96	3.78	0.08	57	3.98	0.10	30	4.10	0.14
65	Client Medication History	42	4.33	0.12	92	4.34	0.09	50	4.44	0.10	24	4.42	0.16
66	Client Mental Competency	64	4.00	0.09	96	4.19	0.08	57	4.30	0.09	30	4.20	0.15
67	Client Mental Status	42	4.45	0.11	91	4.44	0.07	51	4.35	0.08	24	4.50	0.13
68	Client Nutrition	65	3.91	0.09	96	4.16	0.09	57	4.26	0.09	30	4.23	0.11
69	Client Observation	41	4.27	0.12	89	4.35	0.07	51	4.22	0.11	24	4.46	0.10
70	Client Privacy	65	4.51	0.08	96	4.48	0.07	57	4.54	0.08	30	4.43	0.11
71	Client Psychosocial Needs	42	4.12	0.12	91	4.19	0.07	51	4.16	0.11	24	4.21	0.15
72	Client Rights	64	4.59	0.07	96	4.59	0.06	56	4.63	0.07	30	4.67	0.11

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.
73	Client Risk Identification	41	4.41	0.10	91	4.26	0.09	51	4.43	0.11	24	4.50	0.13
74	Client Safety	65	4.83	0.05	96	4.83	0.04	56	4.71	0.07	30	4.93	0.05
75	Client Self-advocacy	42	3.93	0.12	90	4.03	0.09	51	4.08	0.11	23	3.96	0.16
76	Client Spiritual Beliefs	65	3.80	0.10	95	3.79	0.10	57	3.88	0.11	30	3.90	0.18
77	Client Stressors	42	3.95	0.12	90	3.93	0.09	51	4.06	0.11	24	4.04	0.19
78	Client Vital Signs	65	4.65	0.06	96	4.72	0.05	56	4.68	0.07	30	4.73	0.10
79	Client Weight	42	3.90	0.15	91	4.03	0.10	51	3.61	0.12	24	3.50	0.22
80	Client-centered Care	65	4.34	0.08	95	4.25	0.09	57	4.42	0.08	30	4.27	0.14
81	Code of Ethics	42	4.55	0.10	91	4.43	0.07	51	4.53	0.08	24	4.38	0.18
82	Cognitive Impairment	65	4.06	0.08	95	4.13	0.08	57	4.23	0.10	30	4.23	0.10
83	Comfort Measures	42	4.29	0.13	91	4.36	0.08	51	4.12	0.10	24	4.04	0.18
84	Communication Barriers	64	4.03	0.09	94	3.98	0.09	57	4.16	0.11	30	4.17	0.08
85	Communication Skills	41	4.54	0.11	91	4.52	0.06	51	4.59	0.07	24	4.54	0.15
86	Community Resources	63	3.54	0.11	96	3.60	0.10	57	3.84	0.11	30	3.93	0.18
87	Compression Stockings	42	3.81	0.16	90	3.87	0.10	51	3.65	0.13	24	3.63	0.22
88	Confidentiality	63	4.76	0.06	95	4.60	0.06	57	4.74	0.06	30	4.73	0.08
89	Confidentiality and Privacy Laws	42	4.55	0.12	91	4.60	0.06	51	4.65	0.08	24	4.79	0.10
90	Conflict Resolution	63	3.94	0.10	95	4.03	0.09	56	4.16	0.10	29	4.24	0.12
91	Continuity of Care	42	4.17	0.14	91	4.19	0.09	51	4.20	0.08	24	4.17	0.13
92	Continuous Suction of Nasogastric Tube	64	3.92	0.12	97	3.98	0.11	57	3.95	0.14	30	4.03	0.21
93	Cooling Measures	42	3.48	0.14	91	3.62	0.11	51	3.51	0.13	24	3.63	0.23
94	Coping Mechanisms	65	3.92	0.09	96	3.98	0.09	57	4.14	0.10	29	4.10	0.15
95	Cost Effective Care	42	3.31	0.15	89	3.55	0.11	51	3.69	0.14	24	3.63	0.19
96	Critical Thinking	65	4.82	0.05	97	4.68	0.06	57	4.72	0.07	30	4.63	0.11

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.
97	Cultural Competency	42	4.19	0.11	91	4.05	0.09	51	4.10	0.11	24	4.25	0.17
98	Data Collection	65	4.17	0.09	96	4.41	0.07	56	4.57	0.08	30	4.47	0.16
99	De-escalation Techniques	42	4.21	0.13	90	4.29	0.09	51	4.24	0.12	24	4.21	0.19
100	Delegation	64	3.81	0.10	96	4.03	0.08	56	4.04	0.12	30	4.30	0.14
101	Developmental Stages	42	3.60	0.18	92	3.60	0.11	51	3.90	0.12	24	3.71	0.20
102	Diagnostic Test Procedures	65	3.92	0.10	96	4.00	0.10	57	4.09	0.11	30	4.07	0.18
103	Diagnostic Test Results	42	4.31	0.11	92	4.33	0.08	51	4.31	0.11	23	4.13	0.18
104	Diagnostic Values	65	4.22	0.09	96	4.07	0.11	57	4.18	0.12	30	4.20	0.18
105	Disaster Drills	42	3.55	0.18	92	4.01	0.09	50	3.98	0.13	24	4.00	0.26
106	Discharge Process	63	3.71	0.10	95	3.74	0.11	56	3.68	0.13	30	3.83	0.20
107	Documentation	42	4.67	0.10	92	4.62	0.07	50	4.70	0.07	24	4.71	0.09
108	Drainage Device	63	3.92	0.10	94	3.94	0.10	57	3.96	0.13	30	3.93	0.15
109	Ear Irrigation	42	2.67	0.19	92	3.40	0.12	50	3.22	0.16	24	3.21	0.23
110	Electrocardiogram	64	4.02	0.12	95	3.74	0.13	57	4.07	0.12	30	4.10	0.17
111	Electronic Medical Records (EMR)	42	4.43	0.13	92	4.32	0.09	50	4.26	0.12	24	4.38	0.18
112	Emergency Preparedness	64	4.19	0.11	95	4.45	0.09	57	4.47	0.11	30	4.63	0.13
113	Emergency Procedures	42	4.36	0.13	92	4.48	0.07	50	4.72	0.08	24	4.58	0.13
114	Enteral Tube Management	64	3.84	0.12	93	4.20	0.09	57	4.19	0.11	29	4.21	0.18
115	Enteral Tube Types	42	3.79	0.15	92	4.02	0.10	50	4.00	0.13	24	3.67	0.27
116	Environmental Factors	65	3.62	0.11	95	3.75	0.10	57	3.84	0.12	30	4.03	0.13
117	Evidence-based Practice	42	4.31	0.14	92	4.09	0.09	50	4.20	0.10	24	3.96	0.16
118	Evidence-based Practice Resources	64	3.92	0.11	95	3.92	0.11	57	3.98	0.12	30	4.17	0.17
119	Eye Irrigation	42	2.98	0.18	91	3.53	0.12	50	3.56	0.14	24	3.46	0.24
120	Feeding Formula Types	64	3.70	0.12	95	3.64	0.12	57	3.82	0.14	30	3.80	0.21

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.
121	Fetal Heart Monitoring	42	3.29	0.19	91	3.77	0.16	49	3.92	0.18	24	3.67	0.29
122	Fluid and Electrolyte Imbalance	64	4.55	0.09	95	4.31	0.08	57	4.56	0.09	30	4.43	0.15
123	Fluid Balance	42	4.57	0.10	92	4.46	0.08	50	4.48	0.10	24	4.17	0.18
124	Follow-up Care Accessibility	64	3.77	0.10	94	3.79	0.10	57	4.02	0.12	30	3.93	0.18
125	Follow-up with Clients	42	4.05	0.15	91	3.90	0.10	50	3.98	0.12	24	3.75	0.21
126	Functional Status	64	3.98	0.10	95	4.03	0.09	57	4.19	0.10	30	4.17	0.14
127	Gender Identity	41	3.37	0.18	92	3.39	0.13	50	3.32	0.16	24	3.33	0.28
128	Geriatric Client Care	65	4.12	0.10	95	4.36	0.08	57	4.23	0.10	30	4.33	0.12
129	Grieving Process	41	3.85	0.15	91	4.08	0.09	50	4.02	0.12	24	3.92	0.19
130	Group Session	63	3.06	0.13	95	3.08	0.12	57	3.23	0.15	30	3.53	0.19
131	Health Care Provider's Orders	42	4.64	0.11	91	4.67	0.06	50	4.68	0.07	24	4.54	0.13
132	Health Promotion Programs	64	3.36	0.11	94	3.46	0.12	57	3.60	0.13	30	3.80	0.16
133	Health Screening Programs	42	3.74	0.15	92	3.75	0.11	50	3.72	0.12	24	3.88	0.18
134	Hearing Impairment	64	3.66	0.10	95	3.75	0.10	57	3.91	0.13	30	4.30	0.12
135	Hemodialysis	42	3.55	0.18	92	3.98	0.12	50	4.08	0.16	24	3.96	0.26
136	High Risk Behaviors	64	4.13	0.09	94	4.17	0.10	57	4.18	0.11	29	4.41	0.12
137	Hyperglycemia	42	4.57	0.08	92	4.71	0.05	50	4.44	0.09	24	4.54	0.13
138	Hypoglycemia	64	4.70	0.07	95	4.79	0.04	57	4.67	0.07	30	4.73	0.10
139	Hypoxia	42	4.79	0.06	92	4.73	0.06	50	4.64	0.08	24	4.75	0.14
140	Immunizations	64	3.80	0.12	95	3.87	0.11	57	4.05	0.12	30	4.00	0.15
141	Incident Report	42	3.98	0.15	92	4.25	0.08	50	4.10	0.13	24	3.88	0.20
142	Incision Care	63	4.14	0.09	94	4.33	0.07	57	4.30	0.10	30	4.50	0.10
143	Infant Care	42	3.69	0.19	92	3.63	0.15	49	3.86	0.17	23	3.65	0.29
144	Infection Control	64	4.81	0.05	93	4.82	0.04	57	4.79	0.06	30	4.87	0.08

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.
145	Informed Consent	42	4.45	0.11	92	4.37	0.09	50	4.44	0.10	24	4.21	0.20
146	Intake/Output	63	4.25	0.10	94	4.16	0.08	57	4.35	0.09	30	4.37	0.13
147	Interdisciplinary Collaboration	42	4.00	0.15	92	4.04	0.09	50	4.04	0.11	24	3.92	0.16
148	Interdisciplinary Communication	63	4.03	0.10	94	3.98	0.09	56	4.21	0.11	30	4.33	0.13
149	Interdisciplinary Roles and Responsibilities	42	3.88	0.15	92	4.02	0.09	50	3.94	0.12	24	3.79	0.16
150	Intermittent Suction of Nasogastric Tube	64	3.91	0.11	94	3.99	0.11	57	4.16	0.11	30	4.17	0.17
151	Intervention Implementation	42	4.14	0.14	92	4.18	0.07	50	4.04	0.11	24	4.13	0.16
152	Intervention Techniques	64	4.03	0.10	94	4.07	0.10	57	4.14	0.10	30	4.23	0.10
153	Interventions to Life-threatening Situations	42	4.67	0.10	92	4.67	0.07	50	4.72	0.08	23	4.83	0.08
154	Interviewing Skills	62	3.58	0.12	93	3.52	0.12	57	3.70	0.14	30	3.80	0.19
155	Intravenous Complications	42	4.33	0.15	92	4.29	0.10	50	4.44	0.10	24	4.13	0.24
156	Intravenous Piggyback Medication	65	4.11	0.12	94	4.03	0.12	57	3.96	0.15	30	4.37	0.15
157	Intravenous Site Maintenance	42	4.21	0.15	92	4.18	0.10	50	4.32	0.10	24	4.08	0.22
158	Invasive Procedures	63	4.10	0.11	94	3.86	0.13	57	4.00	0.15	30	4.23	0.17
159	Isolation Precautions	42	4.60	0.11	91	4.52	0.07	49	4.57	0.08	24	4.29	0.22
160	Laboratory Test Results	64	4.42	0.08	94	4.17	0.10	57	4.26	0.11	30	4.47	0.17
161	Laboratory Values	42	4.38	0.14	91	4.36	0.07	50	4.36	0.11	24	3.96	0.18
162	Learning Barriers	64	3.77	0.11	94	3.62	0.10	57	4.00	0.11	30	4.03	0.16
163	Life Transitions	42	3.67	0.19	91	3.80	0.10	50	3.64	0.13	24	3.58	0.21
164	Mandatory Reporting	64	4.41	0.10	94	4.38	0.08	56	4.55	0.08	30	4.60	0.11
165	Measurement Conversions	42	3.90	0.17	91	3.98	0.11	50	4.22	0.14	24	3.67	0.27
166	Medical Equipment	64	4.22	0.08	93	4.08	0.10	57	4.26	0.10	30	4.20	0.18
167	Medical Procedures	42	4.26	0.12	92	4.13	0.10	50	4.30	0.10	24	3.71	0.21
168	Medication	65	4.85	0.05	94	4.78	0.05	57	4.82	0.05	30	4.87	0.06

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.
169	Medication Administration Routes	41	4.61	0.11	92	4.64	0.06	50	4.62	0.11	24	4.33	0.22
170	Medication Administration Rights	65	4.80	0.07	94	4.66	0.07	57	4.75	0.07	30	4.90	0.06
171	Medication Administration Safety	42	4.90	0.05	92	4.78	0.05	50	4.86	0.05	24	4.71	0.15
172	Medication Administration Calculations	64	4.70	0.09	93	4.58	0.09	57	4.75	0.06	30	4.90	0.06
173	Medication History	42	4.26	0.13	92	4.26	0.09	50	4.22	0.12	23	4.09	0.21
174	Medication Reconciliation	64	4.28	0.11	94	4.30	0.09	57	4.60	0.08	30	4.67	0.13
175	Mental Health Disorders	41	3.93	0.12	92	4.16	0.08	50	4.20	0.09	24	4.08	0.17
176	Mobility Needs	65	3.98	0.10	94	4.02	0.09	57	4.11	0.10	30	4.23	0.10
177	Narcotics/Controlled Substances	42	4.45	0.10	92	4.52	0.07	50	4.44	0.09	24	4.42	0.17
178	Nasogastric Tube Maintenance	64	3.83	0.12	92	3.95	0.12	57	4.16	0.11	30	4.17	0.14
179	Nasogastric Tube Types	42	3.76	0.16	92	3.84	0.12	50	3.86	0.14	24	3.38	0.25
180	Neurological Checks	64	4.41	0.09	94	4.56	0.07	57	4.46	0.07	30	4.63	0.09
181	Newborn Client Care	42	3.57	0.19	92	3.59	0.15	50	3.76	0.16	24	3.58	0.28
182	Non Pharmacological Interventions	64	3.73	0.10	94	3.82	0.10	57	3.98	0.10	29	4.07	0.14
183	Nose Irrigation	42	2.67	0.18	92	3.22	0.13	50	3.24	0.17	24	2.92	0.27
184	Nurse-Client Relationships	65	4.26	0.09	94	4.15	0.09	57	4.40	0.09	30	4.33	0.09
185	Nutritional Norms	42	3.45	0.18	91	3.74	0.10	50	3.80	0.13	24	3.50	0.22
186	Order Verification	63	4.54	0.09	94	4.61	0.07	56	4.75	0.06	30	4.83	0.07
187	Ostomy Types	41	3.44	0.20	92	3.88	0.10	50	3.72	0.12	24	3.38	0.27
188	Oxygen Saturation Monitoring	65	4.55	0.09	94	4.60	0.07	57	4.53	0.09	30	4.33	0.11
189	Pacemaker	42	3.88	0.17	91	4.14	0.10	50	4.10	0.11	24	3.67	0.27
190	Pain Management	65	4.38	0.07	94	4.48	0.07	56	4.41	0.09	30	4.33	0.13
191	Pain Scales	41	4.37	0.13	91	4.20	0.08	48	4.21	0.10	24	4.04	0.18
192	Peripheral Intravenous Catheter Maintenance	65	4.14	0.12	94	4.30	0.10	57	4.18	0.11	30	4.40	0.15

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.
193	Peripheral Intravenous Catheter Removal	42	3.88	0.17	92	3.96	0.12	50	3.94	0.14	24	3.46	0.29
194	Peritoneal Dialysis	64	3.44	0.14	93	4.08	0.11	55	4.04	0.13	30	4.23	0.18
195	Personal Biases	42	3.43	0.21	91	3.57	0.12	50	3.46	0.17	24	3.54	0.28
196	Personal Limitations	63	4.02	0.09	94	3.96	0.10	57	4.09	0.12	30	4.33	0.13
197	Physical Data Norms	41	3.83	0.18	92	3.80	0.09	50	3.92	0.12	24	3.46	0.23
198	Plan of Care	63	3.98	0.11	94	4.18	0.09	57	4.26	0.10	30	4.33	0.13
199	Policies and Procedures	42	4.21	0.15	91	4.24	0.08	50	4.42	0.10	24	4.13	0.18
200	Polypharmacy	64	4.27	0.10	95	4.06	0.10	57	4.30	0.12	30	4.50	0.11
201	Postpartum Client	42	3.57	0.19	91	3.57	0.15	50	3.80	0.18	24	3.50	0.29
202	Practice Error	64	4.41	0.09	94	4.30	0.10	54	4.46	0.10	30	4.83	0.07
203	Prenatal Complication	42	3.69	0.18	91	3.78	0.15	50	4.08	0.17	24	3.71	0.29
204	Preschool Client Care	64	3.41	0.12	92	3.25	0.14	55	3.56	0.15	30	3.90	0.17
205	Preventative Care	41	4.07	0.15	91	4.03	0.09	50	4.06	0.11	24	4.00	0.19
206	Privacy Practices	65	4.26	0.09	93	4.14	0.09	55	4.42	0.10	30	4.43	0.13
207	Professional Accountability	42	4.36	0.14	91	4.40	0.08	50	4.30	0.10	24	4.25	0.14
208	Professional Boundaries	65	4.40	0.09	92	4.13	0.09	55	4.42	0.09	30	4.67	0.09
209	Professional Development	42	4.19	0.14	91	4.18	0.09	50	4.02	0.12	24	3.96	0.13
210	Protocols	64	4.31	0.07	93	4.25	0.09	55	4.40	0.10	30	4.43	0.15
211	Psychological Evaluation	42	3.93	0.15	91	3.97	0.09	50	3.92	0.13	24	3.88	0.18
212	Psychosocial Functioning	64	3.94	0.10	93	3.86	0.11	55	4.04	0.11	30	4.00	0.18
213	Quality Improvement	42	3.90	0.17	91	3.95	0.09	50	3.86	0.13	24	3.79	0.20
214	Reality Orientation	64	3.88	0.10	92	3.74	0.11	55	4.05	0.11	30	4.10	0.17
215	Referral	42	3.38	0.19	91	3.56	0.11	50	3.40	0.16	24	3.25	0.23
216	Regulatory/Policy Compliance	64	4.20	0.09	93	4.03	0.09	55	4.18	0.10	29	4.52	0.11

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.
217	Relaxation Techniques	42	3.74	0.17	91	3.79	0.10	50	3.58	0.11	24	3.54	0.18
218	Reminiscence Therapy	64	3.00	0.13	93	3.44	0.12	55	3.53	0.15	30	3.77	0.20
219	Resources	42	3.98	0.15	91	3.87	0.09	50	4.00	0.11	24	3.92	0.20
220	Respiratory Disorders	64	4.34	0.08	93	4.57	0.06	54	4.43	0.11	30	4.57	0.10
221	Respiratory Interventions	42	4.74	0.07	91	4.57	0.07	48	4.65	0.09	24	4.29	0.24
222	Responses to Life-threatening Situations	64	4.72	0.06	92	4.67	0.06	54	4.81	0.06	30	4.83	0.08
223	Restraint Alternatives	42	3.98	0.15	90	3.99	0.10	49	3.76	0.12	24	3.83	0.25
224	Restraints	63	4.00	0.12	93	3.58	0.12	55	3.98	0.14	30	4.13	0.20
225	Rights of Medication Administration	42	4.60	0.12	91	4.80	0.04	50	4.68	0.08	24	4.63	0.15
226	Risk Tools	64	3.81	0.10	93	3.90	0.10	55	4.00	0.14	30	4.20	0.15
227	Safe Health Care Environment	42	4.57	0.10	91	4.54	0.07	49	4.55	0.09	23	4.30	0.17
228	Safe Health Care Practice	64	4.31	0.09	93	4.41	0.08	55	4.55	0.10	30	4.73	0.08
229	Safety Checks	42	4.45	0.13	91	4.54	0.07	50	4.48	0.11	24	4.42	0.15
230	School Age Client Care	64	3.45	0.11	93	3.37	0.14	55	3.56	0.14	30	3.87	0.18
231	Scope of Practice	42	4.71	0.09	90	4.62	0.07	50	4.62	0.08	24	4.54	0.12
232	Seclusion	64	3.41	0.13	92	3.64	0.12	55	3.75	0.15	30	4.13	0.17
233	Sensory/Perceptual Alterations	42	4.05	0.14	91	3.99	0.09	50	3.94	0.10	24	3.79	0.21
234	Sequential Compression Devices	63	3.81	0.12	93	3.81	0.11	55	4.00	0.12	30	4.20	0.15
235	Shift Report, Hand-Off	42	4.40	0.11	91	4.43	0.07	50	4.22	0.10	24	4.13	0.19
236	Skin Care	65	4.25	0.10	93	4.33	0.08	55	4.40	0.09	30	4.53	0.10
237	Skin Integrity	42	4.38	0.11	91	4.53	0.05	50	4.32	0.10	24	4.13	0.21
238	Sleep Hygiene	64	3.56	0.11	93	3.85	0.10	55	3.95	0.13	30	4.10	0.16
239	Specialty Diet	42	3.95	0.16	91	4.10	0.09	49	3.96	0.13	24	3.92	0.24
240	Specimen Collection	65	4.15	0.09	93	4.18	0.10	55	4.27	0.09	30	4.37	0.11

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.
241	Spiritual Awareness	42	3.64	0.17	91	3.75	0.10	50	3.46	0.15	24	3.54	0.24
242	Staff Competency	64	4.36	0.09	92	4.14	0.10	55	4.31	0.11	30	4.60	0.10
243	Staff Education	42	4.07	0.12	91	4.00	0.10	50	4.18	0.10	24	4.00	0.16
244	Staff Safety	63	4.51	0.07	92	4.47	0.08	55	4.47	0.09	30	4.70	0.10
245	Standard/Universal Precautions	42	4.67	0.07	91	4.58	0.06	50	4.52	0.10	24	4.38	0.15
246	Standardized Orders	65	4.11	0.10	93	4.09	0.09	55	4.24	0.10	30	4.20	0.15
247	Standardized Pain Scales	42	4.24	0.13	91	4.09	0.08	50	4.00	0.11	24	3.79	0.17
248	Standards of Care	64	4.41	0.08	93	4.38	0.08	55	4.45	0.09	30	4.60	0.09
249	Staple Removal	42	2.98	0.19	91	3.58	0.11	50	3.44	0.15	24	3.08	0.26
250	Sterile Technique	65	4.55	0.08	93	4.61	0.07	54	4.76	0.07	30	4.83	0.08
251	Stressful Life Events	42	3.52	0.16	91	3.77	0.09	50	3.74	0.13	23	4.04	0.22
252	Substance Abuse Disorder	64	3.98	0.11	93	3.88	0.11	55	4.16	0.11	30	4.13	0.13
253	Substance Withdrawal	42	3.95	0.16	91	4.01	0.10	50	4.14	0.13	24	4.08	0.21
254	Supervision/Monitoring of Assistive Personnel	63	3.87	0.11	93	4.02	0.10	55	4.16	0.11	30	4.27	0.11
255	Supervision/Monitoring of Tasks Assigned	41	3.88	0.14	91	4.08	0.09	50	4.04	0.12	24	4.00	0.19
256	Support Systems	64	3.77	0.11	93	3.85	0.11	55	4.07	0.12	30	4.23	0.14
257	Surgical Procedure	42	3.90	0.16	90	3.63	0.14	50	4.14	0.13	24	3.71	0.29
258	Suture Removal	64	3.42	0.13	93	3.65	0.11	53	3.81	0.14	30	3.90	0.21
259	Therapeutic Communication	42	4.24	0.14	91	4.19	0.09	50	4.16	0.10	24	4.25	0.15
260	Therapeutic Environment	63	3.67	0.11	93	3.82	0.10	55	4.13	0.12	29	4.07	0.14
261	Time Management Skills/Techniques	42	4.29	0.15	91	4.25	0.08	50	4.16	0.10	24	4.17	0.19
262	Tracheostomy	64	3.95	0.13	93	4.28	0.11	55	4.20	0.11	30	4.43	0.14
263	Transfer Assistive Devices	42	3.83	0.16	91	4.01	0.09	50	3.84	0.13	24	3.79	0.23
264	Transfer Process	65	3.69	0.12	93	3.98	0.09	55	4.15	0.11	30	4.10	0.17

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.
265	Transfusion Reaction	42	4.38	0.17	90	4.16	0.12	49	4.63	0.10	24	4.29	0.24
266	Treatment Barriers	63	3.73	0.10	93	3.97	0.09	55	4.05	0.11	30	4.23	0.13
267	Urinary Catheter Maintenance	42	4.29	0.12	91	4.31	0.08	50	4.18	0.14	24	3.88	0.24
268	Urinary Retention	65	4.20	0.10	93	4.29	0.09	55	4.31	0.11	30	4.43	0.13
269	Usage of Social Media Related to Client Information	42	3.74	0.22	91	3.74	0.13	50	3.44	0.20	24	4.04	0.28
270	Usage of Social Media with Respect to Client Information	63	4.11	0.13	92	4.01	0.12	55	4.18	0.15	30	4.27	0.17
271	Validation Therapy	42	3.40	0.19	91	3.55	0.11	50	3.54	0.14	24	3.58	0.23
272	Venipuncture	65	3.95	0.12	91	3.79	0.13	55	4.11	0.14	30	4.20	0.14
273	Ventilator	42	3.71	0.19	91	3.91	0.14	50	4.10	0.16	24	3.96	0.27
274	Visual Impairment	62	3.76	0.10	93	3.87	0.11	55	4.11	0.11	30	4.07	0.14
275	Vital Signs	42	4.71	0.07	91	4.66	0.06	50	4.74	0.06	24	4.58	0.13
276	Warming Measures	64	3.73	0.12	93	3.78	0.12	55	3.95	0.13	30	4.03	0.18
277	Wound Drainage Device Removal	42	3.64	0.18	91	3.89	0.11	50	4.00	0.15	24	3.58	0.26
278	Wound Dressing Change	65	4.02	0.10	93	4.43	0.08	55	4.56	0.08	30	4.37	0.16
279	Wound Irrigation	42	3.76	0.17	90	4.01	0.09	50	4.02	0.15	24	3.67	0.24
280	Wound Types	64	3.98	0.10	93	4.38	0.08	55	4.44	0.09	30	4.27	0.16

APPENDIX I. KNOWLEDGE SURVEY NONRESPONDER STUDY

Introduction

The National Council of State Boards of Nursing (NCSBN®) conducted a knowledge statement survey to assess the knowledge newly licensed nurses needed to possess for safe and effective professional practice. The purpose of the study is to inform NCLEX® item development. The overall analyzable response rate for the 2021 LPN/VN Nursing Knowledge Survey was 20.6%. Of the 12,197 newly licensed LPN/VNs, LPN/VN educators and LPN/VN supervisors that were delivered the survey, 2,511 completed and returned a valid survey. NCSBN made the decision to contact a sample of the nurses who did not respond to the survey in order to determine if the results of the 2021 LPN/VN Nursing Knowledge Survey could be biased. If there was a systematic difference in the ratings of the knowledge statements between responders and nonresponders, then the results could potentially be biased. Ruling out the potential for systematic differences among raters further 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 2021 LPN/VN Nursing Knowledge Survey were contacted via email or telephone.

Interview Process

Nonresponders were contacted via email and telephone, using contact information provided by NCSBN. First, an email of the nonresponder survey was sent out to the nonresponders. Nonresponders were also contacted via telephone. If the nonresponders were instead reached using the telephone, they were given the option to complete the nonresponder survey by

email or over the telephone. Regardless of email or telephone, the nonresponders were first asked about their reasons for not completing the survey. In order to facilitate the gathering of data from nonresponders, NCSBN developed a list of possible reasons why invitees may not have responded to the survey based on prior research. Possible reasons included the following: “too busy,” “did not care,” “do not like/trust surveys,” “did not receive,” or “other.” Second, individuals were asked demographic information in order to provide background on nonresponders, including employment setting/specialty. Finally, nonresponders were asked to rate 10 knowledge statements that were listed in the 2021 LPN/VN Nursing Knowledge Survey.

Return Rates

Of the nonresponders who were potential contacts, 62 individuals participated in the study: 39 newly licensed LPN/VNs, 16 LPN/VN educators and 7 LPN/VN supervisors.

Nonresponder Results

Reasons for Not Responding

In general, reasons for not responding were listed as “did not receive” the survey (29 responses or 46.8%), “too busy” (27 responses or 43.5%) or “other” (5 responses or 8.1%). See [Figure I.1](#).

Employment Setting/Specialty

Nonresponders were asked to provide their employment setting/specialty area. The different specialties were represented in this sample. Similar to responders, the largest percentage of newly licensed LPN/VN nonresponders listed their employment setting as long-term care (20.5% for nonresponders and 21.1% for responders). Nonresponder newly licensed LPN/VNs also listed ambulatory care as a common employment setting (17.9%). Nonresponder LPN/VN educators listed other as the most common employment setting (68.8%).

Medical-surgical and hospice care were selected as the next most common employment setting (12.5% each) for LPN/VN educators. This is compared to the responding LPN/VN educators listing medical-surgical unit (28.7%) as the most common employment setting. LPN/VN supervisors listed long-term care as the most frequent employment settings (57.1% nonresponders and 20.0% responders). See [Table I.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 very similar ratings of knowledge statements with no statement having more than one point difference between the two groups. See [Table I.2](#).

Summary

This study found that the responders and nonresponders rated the importance of 10 knowledge statements quite similarly. 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 2021 LPN/VN Nursing Knowledge Survey. Additionally, the findings suggest that individuals did not complete the study because they generally “did not receive the survey,” were “too busy” or in other situations. Overall, these results provide important information on the validity of the 2021 LPN/VN Nursing Knowledge Survey and why individuals do not complete surveys.

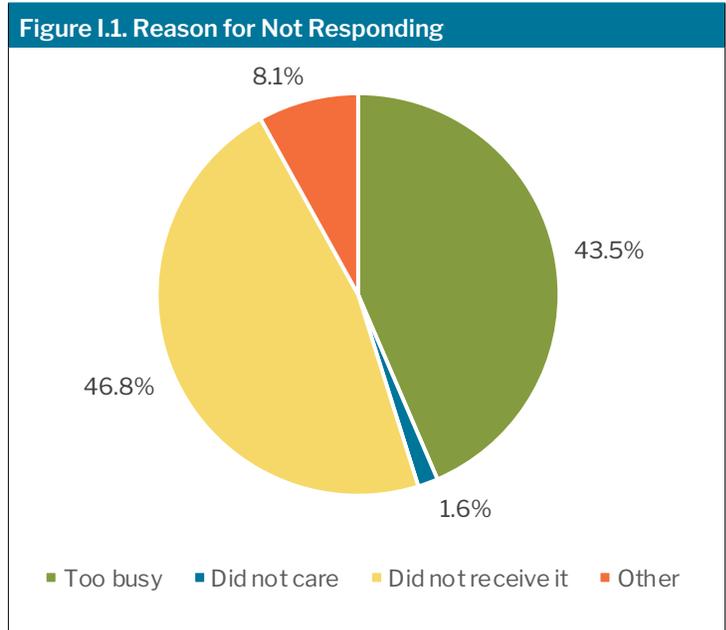


Table I.1. Employment Setting/Specialty

Job Title	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 (e.g., ICU, CCU, step-down units, pediatric/neonatal intensive care, emergency department, postanesthesia recovery unit)	16	2.18	6	5.9	7	6.3	1	2.6	0	0.0	0	0.0
Medical-surgical unit or any of its subspecialties (e.g., oncology, orthopedics, neurology)	29	3.96	29	28.7	11	10.0	1	2.6	2	12.5	0	0.0
Pediatrics (including nursery)	26	3.5	7	6.9	4	3.6	2	5.1	0	0.0	0	0.0
Labor and delivery (including postpartum unit)	2	0.3	7	6.9	1	0.9	1	2.6	0	0.0	0	0.0
Psychiatry or any of its subspecialties (e.g., detox inpatient, outpatient)	21	2.9	9	8.9	0	0.0	2	5.1	0	0.0	0	0.0
Assisted living	N/A	N/A	N/A	N/A	N/A	N/A	3	7.7	0	0.0	0	0.0
Operating room, including outpatient surgery and surgical centers	3	0.4	1	1.0	2	1.8	0	0.0	0	0.0	0	0.0
Long-term care (e.g., nursing home, skilled or intermediate care)	155	21.1	18	17.8	22	20.0	8	20.5	0	0.0	4	57.1
Residential (e.g., development disability)	19	2.6	1	1.0	3	2.7	2	5.1	0	0.0	1	14.3
Rehabilitation (e.g., subacute or transitional care unit)	80	10.9	7	6.9	5	4.5	2	5.1	0	0.0	0	0.0
Ambulatory care, physician office or clinics (e.g., physician/APRN/dentist office, occupational health, outpatient clinic)	43	5.9	5	5.0	11	10.0	7	17.9	0	0.0	0	0.0
Home health, including visiting nurses associations	35	4.8	4	4.0	2	1.8	3	7.7	1	6.3	1	14.3
Public health (e.g., public health/occupational health, student/school health, prison/correctional facility/jail)	21	2.9	2	2.0	1	0.9	3	7.7	0	0.0	0	0.0
Hospice care	6	0.8	4	4.0	6	5.5	0	0.0	2	12.5	1	14.3
Palliative care	14	1.9	0	0.0	0	0.0	N/A	N/A	N/A	N/A	N/A	N/A
Short stay	N/A	N/A	N/A	N/A	N/A	N/A	0	0.0	0	0.0	0	0.0
Step-down care	N/A	N/A	N/A	N/A	N/A	N/A	0	0.0	0	0.0	0	0.0
Other*	39	5.3	13	12.9	12	10.9	4	10.3	11	68.8	0	0.0

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

Table I.2. Knowledge Statement Importance Ratings

Knowledge Statement	Responder Rating	Nonresponder Rating
16. Aspiration Precautions	4.68 (n=354)	4.58 (n=62)
21. Basic Cardiac Abnormalities	4.35 (n=339)	4.10 (n=62)
74. Client Safety	4.80 (n=351)	4.74 (n=62)
108. Drainage Device	3.91 (n=280)	3.87 (n=62)
129. Grieving Process	3.97 (n=258)	3.95 (n=62)
139. Hypoxia	4.70 (n=260)	4.65 (n=62)
166. Medical Equipment	4.18 (n=279)	4.11 (n=62)
172. Medication Administration Calculations	4.69 (n=279)	4.61 (n=62)
247. Standardized Pain Scales	4.07 (n=215)	4.00 (n=62)
278. Wound Dressing Change	4.34 (n=246)	4.19 (n=62)

APPENDIX J: LINKING OF KNOWLEDGE STATEMENTS AND ACTIVITY STATEMENTS

Appendix J was developed by the SME panelists and does not reflect the final knowledge statements or their categorization.

Linking of Knowledge Statements and Activity Statements	
1. Coordinated Care	
Use data from various credible sources in making clinical decisions	<ul style="list-style-type: none"> Critical thinking Interdisciplinary communication Interdisciplinary collaboration Diagnostic values Client baseline data Policies and procedures Resources Client communication Client rights Cultural competency Client condition
Contribute to the development of and/or update the client plan of care	<ul style="list-style-type: none"> Data collection Client evaluation Client baseline data Client disease processes and conditions Client history Referral Interdisciplinary collaboration Care plan Policies and procedures Interdisciplinary communication Client communication
Assign client care and/or related tasks (e.g., assistive personnel or LPN/VN)	<ul style="list-style-type: none"> Delegation Scope of practice Supervision/monitoring of tasks assigned Policies and procedures Cultural competency
Organize and prioritize care based on client needs	<ul style="list-style-type: none"> Data collection Critical thinking Time management skills/techniques Delegation Shift report, hand-off Client condition

Linking of Knowledge Statements and Activity Statements	
Recognize and report staff conflict	<ul style="list-style-type: none"> Chain of command Scope of practice Code of ethics Communication skills Conflict resolution Policies and procedures
Advocate for client rights and needs	<ul style="list-style-type: none"> Client communication Interdisciplinary communication Client rights Available resources Mandatory reporting Abuse prevention Client advocacy Client education Cultural competency
Promote client self-advocacy	<ul style="list-style-type: none"> Client communication Client self-advocacy Client education Available resources Client-centered care Client autonomy Cultural competency Client education Cultural competency
Participate in quality improvement (QI) activity (e.g., collecting data, serving on QI committee)	<ul style="list-style-type: none"> Policies and procedures Data collection Interdisciplinary collaboration Quality improvement Standards of care
Involve client in care decision making	<ul style="list-style-type: none"> Client education Client communication Available resources Client autonomy Interdisciplinary collaboration Client self-advocacy Client rights Cultural competency

Linking of Knowledge Statements and Activity Statements	
Follow up with client after discharge	<ul style="list-style-type: none"> Client communication Discharge process Policies and procedures Documentation Available resources Support systems Follow up care accessibility
Participate in staff education (e.g., in services, continued competency)	<ul style="list-style-type: none"> Communication skills Policies and procedures Scope of practice Professional development Available resources Regulatory/policy compliance
Recognize self-limitations of task/assignments and seek assistance when needed	<ul style="list-style-type: none"> Scope of practice Communication skills Policies and procedures Chain of command Personal limitations Available resources Professional accountability Delegation
Respond to the unsafe practice of a health care provider (e.g., intervene, report)	<ul style="list-style-type: none"> Scope of practice Policies and procedures Mandatory reporting Incident report Client advocacy Safe health care practice Intervention techniques
Participate in client discharge or transfer	<ul style="list-style-type: none"> Client communication Policies and procedures Discharge process Transfer process Client education Available resources Interdisciplinary communication Interdisciplinary collaboration

Linking of Knowledge Statements and Activity Statements	
Participate in client referral process	<ul style="list-style-type: none"> Available resources Referral Scope of practice Interdisciplinary communication Client communication Follow-up with clients
Follow regulation/policy for reporting specific issues (e.g., abuse, neglect, gunshot wound, communicable disease)	<ul style="list-style-type: none"> Mandatory reporting Policies and procedures Available resources Chain of command Client advocacy
Participate in client consent process	<ul style="list-style-type: none"> Client education Policies and procedures Client autonomy Client mental competency Client communication Client rights Documentation
Maintain client confidentiality	<ul style="list-style-type: none"> Confidentiality and privacy laws Usage of social media related to client information Confidentiality Electronic medical records (EMR) Client rights
Provide for privacy needs	<ul style="list-style-type: none"> Confidentiality and privacy laws Cultural competency Client rights Client advocacy Policies and procedures
Provide information about advance directives	<ul style="list-style-type: none"> Client communication Client education Policies and procedures Confidentiality and privacy laws Documentation Client rights Client history Interdisciplinary communication Interdisciplinary collaboration Client self-advocacy

Linking of Knowledge Statements and Activity Statements	
Participate in client data collection	<ul style="list-style-type: none"> Communication skills Cultural competency Diagnostic test results Data collection Documentation Interdisciplinary communication
Use information technology in client care	<ul style="list-style-type: none"> Electronic medical records (EMR) Confidentiality and privacy laws Policies and procedures Client consent Client education Appropriate resources
Apply evidence-based practice when providing care	<ul style="list-style-type: none"> Policies and procedures Scope of practice Standardized orders Evidence-based practice Evidence-based practice resources
Participate as a member of an interdisciplinary team	<ul style="list-style-type: none"> Interdisciplinary communication Interdisciplinary collaboration Interdisciplinary roles and responsibilities Client advocacy
Monitor activities of assistive personnel	<ul style="list-style-type: none"> Supervision/monitoring of assistive personnel Delegation Scope of practice
Participate in providing cost effective care	<ul style="list-style-type: none"> Infection control Plan of care Health care provider's orders Documentation Policies and procedures Cost effective care
Provide and receive report	<ul style="list-style-type: none"> Communication skills Critical thinking Client care prioritization Policies and procedures Delegation Scope of practice Continuity of care

Linking of Knowledge Statements and Activity Statements	
Practice in a manner consistent with code of ethics for nurses	<ul style="list-style-type: none"> Scope of practice Code of ethics Professional boundaries Usage of social media with respect to client information Confidentiality and privacy laws Client rights
Provide care within the legal scope of practice	<ul style="list-style-type: none"> Scope of practice Policies and procedures
Verify and process health care provider orders	<ul style="list-style-type: none"> Order verification Client health history Rights of medication administration
2. Safety and Infection Control	
Assure availability and safe functioning of client care equipment	<ul style="list-style-type: none"> Interdisciplinary communication Policies and procedures Client safety Staff safety Client equipment Personal limitations Available resources
Evaluate the appropriateness of health care provider's order for client	<ul style="list-style-type: none"> Scope of practice Standards of care Standardized orders Policies and procedures Client history Available resources Client condition Interdisciplinary collaboration Health care provider's orders
Verify the identity of client	<ul style="list-style-type: none"> Policies and procedures Client communication Client safety Client identification methods Confidentiality and privacy laws Client rights

Linking of Knowledge Statements and Activity Statements	
Use safe client handling techniques (e.g., body mechanics)	<ul style="list-style-type: none"> Body mechanics Assistive devices Policies and procedures Delegation Personal limitations Client safety Staff safety Data collection Client condition
Identify client allergies and intervene as appropriate	<ul style="list-style-type: none"> Policies and procedures Client communication Client safety Client history Client observation Allergic reactions Emergency procedures Interdisciplinary communication Data collection
Participate in preparation for internal and external disasters (e.g., fire, natural disaster)	<ul style="list-style-type: none"> Disaster drills Policies and procedures Chain of command Documentation Client education Communication skills Emergency preparedness Interdisciplinary collaboration
Identify and address unsafe conditions in health care and home environments	<ul style="list-style-type: none"> Policies and procedures Mandatory reporting Chain of command Incident report Safe health care environment Documentation Interdisciplinary communication Interdisciplinary collaboration Client education

Linking of Knowledge Statements and Activity Statements	
Implement least restrictive restraints or seclusion	<ul style="list-style-type: none"> Policies and procedures Abuse prevention Client rights Client communication Restraint alternatives Restraints Interdisciplinary communication Safety checks
Follow protocol for timed client monitoring (e.g., safety checks)	<ul style="list-style-type: none"> Policies and procedures Health care provider's orders Client observation Client condition Client complication Safety checks Client care prioritization
Assist in and/or reinforce education to client about safety precautions	<ul style="list-style-type: none"> Client education Client communication Client history Available resources Client safety Policies and procedures Cultural competency Barriers to learning
Initiate and participate in security alert (e.g., infant abduction, flight risk)	<ul style="list-style-type: none"> Policies and procedures Client communication Client education Interdisciplinary communication Safety checks Chain of command Mandatory reporting Emergency preparedness

Linking of Knowledge Statements and Activity Statements	
Acknowledge and document practice error (e.g., incident report)	<ul style="list-style-type: none"> Incident report Mandatory reporting Policies and procedures Interdisciplinary communication Documentation Client rights Chain of command Code of ethics Professional accountability Practice error
Use transfer assistive devices (e.g., gait/transfer belt, slide board, mechanical lift)	<ul style="list-style-type: none"> Transfer assistive devices Policies and procedures Client safety Staff safety Client history Personal limitations Interdisciplinary communication Client education Staff competency
Apply principles of infection control (e.g., PPE, aseptic technique, isolation, standard precautions)	<ul style="list-style-type: none"> Standard/universal precautions Policies and procedures Communication skills Client education Appropriate resources Staff education Staff competency Infection control Aseptic technique Sterile technique Health care provider's orders Isolation precautions
3. Health Promotion and Maintenance	
Assist with care for the antepartum client	<ul style="list-style-type: none"> Policies and procedures Client equipment Antepartum client Documentation Chain of command Interdisciplinary communication Client education Client history Fetal heart monitoring

Linking of Knowledge Statements and Activity Statements	
Identify community resources for clients	<ul style="list-style-type: none"> Available resources Community resources Client history Client rights Client communication Cultural competency
Assist with monitoring a client in labor	<ul style="list-style-type: none"> Policies and procedures Client in labor Client history Client equipment Fetal heart monitoring Chain of command Communication skills Client education Emergency procedures Documentation Health care provider's orders Interdisciplinary communication
Monitor recovery of stable postpartum client	<ul style="list-style-type: none"> Postpartum client Incision care Policies and procedures Documentation Health care provider's orders Client education Chain of command Emergency procedures Client history Client condition
Compare client to developmental milestones	<ul style="list-style-type: none"> Developmental stages Client history Interdisciplinary communication Available resources Client education Data collection
Assist client with expected life transition (e.g., attachment to newborn, parenting, retirement)	<ul style="list-style-type: none"> Client education Life transitions Available resources Client communication

Linking of Knowledge Statements and Activity Statements	
Participate in health screening or health promotion programs	<ul style="list-style-type: none"> Client education Health screening programs Health promotion programs Available resources Interdisciplinary collaboration Medical equipment
Provide information for prevention of high risk behaviors (e.g., substance abuse, sexual practices, smoking cessation)	<ul style="list-style-type: none"> Client education Client communication Available resources High risk behaviors Preventative care Client history Privacy practices
Collect data for health history (e.g., client medical history, family medical history)	<ul style="list-style-type: none"> Client communication Data collection Interviewing skills Client history Documentation Cultural competency Interdisciplinary collaboration
Collect baseline physical data (e.g., skin integrity, height and weight)	<ul style="list-style-type: none"> Data collection Client history Documentation Client observation Physical data norms Client baseline data Privacy practices
Identify clients in need of immunizations (required and voluntary)	<ul style="list-style-type: none"> Client history Immunizations Documentation Health care provider's orders Client allergies Client communication Cultural competency

Linking of Knowledge Statements and Activity Statements	
Provide care that meets the needs of the newborn less than 1 month old through the infant or toddler client through 2 years	<ul style="list-style-type: none"> Newborn client care Infant care Care of toddler client through two years Client history Developmental stages Client education Documentation Immunizations Client safety Preventative care Interdisciplinary collaboration
Provide care that meets the needs of the preschool, school age and adolescent client ages 3 through 17 years	<ul style="list-style-type: none"> Preschool client care School age client care Adolescent client care Developmental stages Client safety Immunizations Client education Client history Preventative care Interdisciplinary collaboration
Provide care that meets the needs of the adult client ages 18 through 64 years	<ul style="list-style-type: none"> Developmental stages Immunizations Client education Adult client care Preventative care Client history Available resources Client safety Communication skills Interdisciplinary collaboration
Provide care that meets the needs of the adult client ages 65 and over	<ul style="list-style-type: none"> Client autonomy Geriatric client care Abuse prevention Mandatory reporting Immunizations Available resources Client education Interdisciplinary collaboration Polypharmacy Mental health disorders Developmental stages

Linking of Knowledge Statements and Activity Statements	
Identify barriers to communication	<ul style="list-style-type: none"> Client history Client condition Cultural competency Communication barriers Client mental status Client cognitive ability Client literacy
Identify barriers to learning	<ul style="list-style-type: none"> Client cognitive ability Client literacy Communication barriers Client mental status Cultural competency Client condition Client history Client communication
4. Psychosocial Integrity	
Provide emotional support to client	<ul style="list-style-type: none"> Client advocacy Professional boundaries Nurse-client relationships Therapeutic communication Active listening Available resources
Collect data regarding client psychosocial functioning	<ul style="list-style-type: none"> Client history Data collection Therapeutic communication Client observation Interdisciplinary communication Developmental stages Psychosocial functioning
Identify client use of effective and ineffective coping mechanisms	<ul style="list-style-type: none"> Coping mechanisms Therapeutic communication Client education Client history Care plan Documentation Client observation

Linking of Knowledge Statements and Activity Statements	
Promote positive self-esteem of client	<ul style="list-style-type: none"> Client history Client autonomy Personal limitations Client advocacy Therapeutic communication Available resources Psychosocial functioning
Collect data on client's potential for violence to self and others	<ul style="list-style-type: none"> Client history Client observation Therapeutic communication Interdisciplinary communication Psychological evaluation Client safety Staff safety Safety checks Mandatory reporting Policies and procedures Data collection Risk tools
Identify signs and symptoms of substance abuse, chemical dependency, withdrawal and overdose	<ul style="list-style-type: none"> Client history Substance abuse disorder Data collection Diagnostic test results Client observation Chemical dependency Substance withdrawal Chemical toxicity Documentation Therapeutic communication
Reinforce education to caregivers/family on ways to manage client with behavioral disorders	<ul style="list-style-type: none"> Available resources Therapeutic communication Behavioral disorders Client education Personal limitations Cultural competency Documentation Policies and procedures Mandatory reporting Client observation

Linking of Knowledge Statements and Activity Statements	
Explore reasons for client noncompliance with treatment plan	Therapeutic communication Client rights Cultural competency Client knowledge deficit Treatment barriers Client history Documentation Available resources Learning barriers
Participate in client group session	Therapeutic communication Client history Client advocacy Group session De-escalation techniques Client education Interdisciplinary collaboration
Plan care with consideration of client spiritual or cultural beliefs and gender identity	Cultural competency Therapeutic communication Client advocacy Available resources Client education Staff education Client history Client spiritual beliefs Gender identity
Assist in managing the care of an angry and/or agitated client (e.g., de-escalation techniques)	De-escalation techniques Client safety Staff safety Client history Mandatory reporting Interdisciplinary communication Policies and procedures Medication Restraints Seclusion Client advocacy Behavioral management Therapeutic communication Mental health disorders

Linking of Knowledge Statements and Activity Statements	
Participate in reminiscence therapy, validation therapy or reality orientation	<ul style="list-style-type: none"> Reminiscence therapy Validation therapy Reality orientation Therapeutic communication Client history Documentation Interdisciplinary communication Available resources Client safety
Assist in the care of the cognitively impaired client	<ul style="list-style-type: none"> Cognitive impairment Available resources Therapeutic communication Learning barriers Documentation Client safety Staff safety Behavioral management Interdisciplinary communication Interdisciplinary collaboration Client history Care plan
Assist client to cope/adapt to stressful events and changes in health status	<ul style="list-style-type: none"> Available resources Mandatory reporting Client communication Documentation Therapeutic communication Developmental stages Coping mechanisms Client history Cultural competency Stressful life events Client condition Grieving process
Use therapeutic communication techniques with client	<ul style="list-style-type: none"> Communication barriers Cultural competency Interviewing skills Personal biases Communication skills Active listening Therapeutic communication

Linking of Knowledge Statements and Activity Statements	
Assist in the care of a client experiencing sensory/perceptual alterations	<ul style="list-style-type: none"> Client history Available resources Diagnostic test results Medication Interdisciplinary communication Sensory/perceptual alterations Client safety Staff safety Documentation Therapeutic communication Care plan Behavioral management
Promote a therapeutic environment	<ul style="list-style-type: none"> Therapeutic communication Therapeutic environment Client safety Staff safety Comfort measures Interdisciplinary communication Communication barriers
Incorporate behavioral management techniques when caring for a client	<ul style="list-style-type: none"> Behavioral management techniques Client education Client safety Staff safety Medication De-escalation techniques
Recognize stressors that affect client care	<ul style="list-style-type: none"> Data collection Client history Client observation Client stressors Client education Psychosocial functioning
Provide end of life care and education to clients	<ul style="list-style-type: none"> Cultural competency Therapeutic communication Medication Grieving process Comfort measures

Linking of Knowledge Statements and Activity Statements

5. Basic Care and Comfort

<p>Provide site care for client with enteral tubes</p>	<ul style="list-style-type: none"> Enteral tube management Documentation Client education Policies and procedures Infection control Skin integrity Staff competency
<p>Promote alternative/complementary therapy in providing client care (e.g., music therapy, pet therapy)</p>	<ul style="list-style-type: none"> Alternative/complementary therapy Available resources Client history Cultural competency Client communication Policies and procedures Interdisciplinary collaboration
<p>Provide for mobility needs (e.g., ambulation, range of motion, transfer, repositioning, use of adaptive equipment)</p>	<ul style="list-style-type: none"> Client history Assistive devices Interdisciplinary collaboration Client safety Staff safety Client education Available resources Documentation Body mechanics Mobility needs Policies and procedures Interdisciplinary communication Staff competency

Linking of Knowledge Statements and Activity Statements	
Provide feeding for client with enteral tubes	<ul style="list-style-type: none"> Enteral tube types Client equipment Infection control Documentation Client safety Client communication Interdisciplinary communication Enteral tube management Client education Staff education Interdisciplinary collaboration Aspiration precautions Policies and procedures Feeding formula types
Monitor and provide for nutritional needs of client	<ul style="list-style-type: none"> Client history Nutritional norms Client baseline data Specialty diet Documentation Diagnostic test results Client education Interdisciplinary communication Interdisciplinary collaboration Client safety Cultural competency
Provide nonpharmacological measures for pain relief (e.g., imagery, massage, repositioning)	<ul style="list-style-type: none"> Client history Cultural competency Policies and procedures Client education Available resources Non pharmacological interventions Interdisciplinary communication Documentation Client safety

Linking of Knowledge Statements and Activity Statements	
Assist with activities of daily living	<ul style="list-style-type: none"> Interdisciplinary collaboration Client history Functional status Client condition Available resources Client education Activities of daily living Client autonomy Cultural competency Assistive devices Client safety Staff safety Body mechanics Client communication
Provide care to client with bowel or bladder management protocol	<ul style="list-style-type: none"> Bowel management protocol Bladder management protocol Policies and procedures Documentation Client education Care plan Interdisciplinary communication Skin integrity Client communication
Evaluate pain using standardized rating scales	<ul style="list-style-type: none"> Standardized pain scales Client education Cultural competency Documentation Client history Client communication Policies and procedures Therapeutic communication Non pharmacological interventions
Provide measures to promote sleep and rest	<ul style="list-style-type: none"> Sleep hygiene Client history Medication history Environmental factors Documentation Relaxation techniques Client safety

Linking of Knowledge Statements and Activity Statements	
Use measures to maintain or improve client skin integrity	<ul style="list-style-type: none"> Skin care Documentation Client nutrition Client education Client advocacy Adaptive devices Diagnostic test results Interdisciplinary communication Interdisciplinary collaboration Available resources Functional status Client condition
Assist in providing postmortem care	<ul style="list-style-type: none"> Policies and procedures Cultural competency Documentation Client communication Therapeutic communication Interdisciplinary collaboration Interdisciplinary communication Spiritual awareness
Perform irrigation (e.g., urinary catheter, bladder, wound, ear, nose, eye)	<ul style="list-style-type: none"> Policies and procedures Urinary catheter maintenance Bladder irrigation Wound irrigation Ear irrigation Nose irrigation Eye irrigation Documentation Protocols Client education Infection control Sterile technique Aseptic technique Client privacy Staff competency

Linking of Knowledge Statements and Activity Statements	
Assist in the care and comfort for a client with a visual and/or hearing impairment	<ul style="list-style-type: none"> Available resources Adaptive devices Therapeutic communication Client safety Interdisciplinary communication Visual impairment Hearing impairment Cultural competency Client history Functional status Client condition
Monitor client intake/output	<ul style="list-style-type: none"> Documentation Policies and procedures Client history Client education Measurement conversions
Provide care to an immobilized client based on need	<ul style="list-style-type: none"> Policies and procedures Assistive devices Client safety Documentation Skin integrity Interdisciplinary communication Client education Available resources Client psychosocial needs
6. Pharmacological Therapies	
Follow the rights of medication administration	<ul style="list-style-type: none"> Medication administration rights Client identification Medication Policies and procedures Documentation
Reconcile and maintain medication list or medication administration record (e.g., prescribed medications, herbal supplements, over-the-counter medications)	<ul style="list-style-type: none"> Documentation Policies and procedures Client education Client communication Client allergies Interdisciplinary collaboration Client medication history Polypharmacy Medication Medication reconciliation

Linking of Knowledge Statements and Activity Statements

Monitor transfusion of blood product	<ul style="list-style-type: none"> Policies and procedures Blood product Transfusion reaction Documentation Client safety Staff safety Blood product transfusion Data collection Client education Health care provider's orders Client equipment Staff competency Spiritual awareness Cultural competency Informed consent
Calculate and monitor intravenous (IV) flow rate	<ul style="list-style-type: none"> Medication administration calculations Health care provider's orders Policies and procedures Client equipment Documentation Client safety Interdisciplinary communication Medication administration safety Medication administration rights
Administer medication by oral route	<ul style="list-style-type: none"> Medication administration safety Medication Client history Documentation Client allergies Health care provider's orders Cultural competency Medication administration rights

Linking of Knowledge Statements and Activity Statements	
Administer medication by various gastrointestinal tubes	<ul style="list-style-type: none"> Policies and procedures Client equipment Documentation Client safety Data collection Medication Client communication Client history Staff competency Enteral tube types
Administer a subcutaneous, intradermal or intramuscular medication	<ul style="list-style-type: none"> Medication administration routes Documentation Medication Client education Infection control Policies and procedures Client safety Staff safety Health care provider's orders Client history Medication administration rights
Administer medication by ear, eye, nose, inhalation, rectum, vagina or skin route	<ul style="list-style-type: none"> Medication administration routes Client history Documentation Medication Policies and procedures Client education Health care provider's orders Client safety Staff safety Assistive devices for medication administration Cultural competency Medication administration rights
Count controlled substances and report discrepancies	<ul style="list-style-type: none"> Policies and procedures Narcotics/controlled substances Medication reconciliation Mandatory reporting Documentation Interdisciplinary communication

Linking of Knowledge Statements and Activity Statements	
Maintain pain control devices (e.g., epidural, patient control analgesia, peripheral nerve catheter)	<ul style="list-style-type: none"> Client equipment Policies and procedures Documentation Client history Client safety Medication Client education Data collection
Administer intravenous piggyback (secondary) medications	<ul style="list-style-type: none"> Intravenous piggyback medication Medication administration routes Medication administration calculations Client equipment Documentation Policies and procedures Scope of practice Intravenous site maintenance Intravenous complications Client history Health care provider's orders Client safety Staff safety
Collect required data prior to medication administration (e.g., contraindications, current medications)	<ul style="list-style-type: none"> Client history Data collection Client allergies Documentation Health care provider's orders Interdisciplinary communication Diagnostic test results Medication
Evaluate client response to medication (e.g., adverse reactions, interactions, therapeutic effects, critical laboratory values)	<ul style="list-style-type: none"> Documentation Client history Medication Client safety Client education Standardized pain scales Policies and procedures Adverse reactions Laboratory values

Linking of Knowledge Statements and Activity Statements	
Reinforce education to client regarding medications	<ul style="list-style-type: none"> Client education Client communication Learning barriers Available resources Cultural competency Interdisciplinary communication Polypharmacy Client limitations Assistive devices for medication administration Medication administration safety Client allergies
Maintain medication safety practices (e.g., storage, checking for expiration dates, compatibility)	<ul style="list-style-type: none"> Medication Medication administration safety Policies and procedures Documentation Client education Learning barriers Cultural competency Client safety Medication reconciliation Staff competency
Perform calculations needed for medication administration	<ul style="list-style-type: none"> Medication administration calculations Documentation Medication administration safety Measurement conversions
7. Reduction of Risk Potential	
Identify client risk and implement interventions	<ul style="list-style-type: none"> Client history Client risk identification Client safety Interdisciplinary communication Data collection Documentation Care plan Policies and procedures Intervention implementation Available resources Risk tools

Linking of Knowledge Statements and Activity Statements	
Check for urinary retention (e.g., bladder scan, ultrasound, palpation)	<ul style="list-style-type: none"> Urinary retention Client equipment Bladder palpation technique Documentation Client education Client history Health care provider's orders Interdisciplinary collaboration Cultural competency Policies and procedures Staff competency
Collect specimen for diagnostic testing (e.g., blood, urine, stool, sputum)	<ul style="list-style-type: none"> Policies and procedures Specimen collection Diagnostic test results Infection control Client education Documentation Client communication Cultural competency Interdisciplinary collaboration Client equipment
Monitor continuous or intermittent suction of nasogastric (NG) tube	<ul style="list-style-type: none"> Continuous suction of nasogastric tube Intermittent suction of nasogastric tube Nasogastric tube types Client equipment Client safety Client complication Client education Policies and procedures Health care provider's orders Interdisciplinary communication
Monitor diagnostic or laboratory test results	<ul style="list-style-type: none"> Diagnostic test results Laboratory test results Policies and procedures Client safety Documentation Interdisciplinary communication Health care provider's orders Client communication Client history

Linking of Knowledge Statements and Activity Statements	
Identify signs or symptoms of potential prenatal complication	<ul style="list-style-type: none"> Client history Data collection Prenatal complication Documentation Client communication Client safety Interdisciplinary communication
Check and monitor client vital signs	<ul style="list-style-type: none"> Data collection Documentation Policies and procedures Health care provider's orders Client history Interdisciplinary communication Client education Vital signs
Use precautions to prevent injury and/or complications associated with a procedure or diagnosis	<ul style="list-style-type: none"> Client complication Client condition Policies and procedures Client history Client safety Risk tools Interdisciplinary communication Documentation Data collection Client disease processes and conditions Health care provider's orders Medical procedures
Evaluate client oxygen (O₂) saturation	<ul style="list-style-type: none"> Policies and procedures Oxygen saturation monitoring Documentation Client history Client equipment Hypoxia Client safety

Linking of Knowledge Statements and Activity Statements	
Perform an electrocardiogram (EKG/ECG)	<ul style="list-style-type: none"> Electrocardiogram Client education Health care provider's orders Interdisciplinary communication Client safety Client history Client privacy Client equipment
Assist with the performance of a diagnostic or invasive procedure	<ul style="list-style-type: none"> Client safety Diagnostic test procedures Scope of practice Invasive procedures Policies and procedures Client communication Interdisciplinary communication Interdisciplinary collaboration Infection control Client equipment
Perform venipuncture for blood draws	<ul style="list-style-type: none"> Client equipment Venipuncture Health care provider's orders Diagnostic test procedures Documentation Infection control Client communication Client education Cultural competency Policies and procedures Client safety Staff safety
Apply and check proper use of compression stockings and/or sequential compression devices (SCD)	<ul style="list-style-type: none"> Compression stockings Sequential compression devices Client education Client communication Policies and procedures Health care provider's orders Client safety Documentation Skin integrity

Linking of Knowledge Statements and Activity Statements	
Assist with care for client before and after surgical procedure	<ul style="list-style-type: none"> Client education Surgical procedure Policies and procedures Documentation Available resources Learning barriers Cultural competency Therapeutic communication Interdisciplinary communication Informed consent
Insert, maintain and remove urinary catheter	<ul style="list-style-type: none"> Client safety Urinary catheter maintenance Sterile technique Infection control Documentation Health care provider's orders Client education Cultural competency Client privacy Policies and procedures Interdisciplinary collaboration
Insert, maintain and remove nasogastric (NG) tube	<ul style="list-style-type: none"> Nasogastric tube maintenance Policies and procedures Health care provider's orders Documentation Nasogastric tube types Client education Client communication Client history Client equipment Client safety

Linking of Knowledge Statements and Activity Statements	
Perform blood glucose monitoring	<ul style="list-style-type: none"> Blood glucose monitoring Client education Documentation Client equipment Health care provider's orders Diagnostic test results Client safety Staff safety Hypoglycemia Hyperglycemia Client communication Aseptic technique
Maintain central venous catheter	<ul style="list-style-type: none"> Infection control Central venous catheter Policies and procedures Health care provider's orders Sterile technique Client education Documentation Central venous catheter management Client communication
Maintain and remove peripheral intravenous (IV) catheter	<ul style="list-style-type: none"> Peripheral intravenous catheter maintenance Peripheral intravenous catheter removal Client education Health care provider's orders Documentation Client safety Staff safety Client communication Scope of practice Infection control Client equipment

Linking of Knowledge Statements and Activity Statements	
Perform focused data collection based on client condition (e.g., neurological checks, circulatory checks)	<ul style="list-style-type: none"> Health care provider's orders Neurological checks Documentation Data collection Client communication Policies and procedures Interdisciplinary collaboration Client education Client baseline data Client safety Client equipment Circulatory checks
Monitor client responses to procedures and treatments	<ul style="list-style-type: none"> Data collection Client communication Medical procedures Staff competency Adverse events Medication Interdisciplinary communication Client education Client safety Pain scales Documentation
Reinforce client education about procedures and treatments	<ul style="list-style-type: none"> Client education Communication barriers Client communication Documentation
8. Physiological Adaptation	
Reinforce education to client regarding care and condition	<ul style="list-style-type: none"> Client education Learning barriers Cultural competency Documentation Interdisciplinary communication Available resources Therapeutic communication Client history Client condition Care plan

Linking of Knowledge Statements and Activity Statements	
Provide care for client drainage device (e.g., wound drain, chest tube)	<ul style="list-style-type: none"> Policies and procedures Client safety Health care provider's orders Client communication Client education Documentation Infection control Cultural competency Drainage device Intake/output Fluid balance
Assist with client wound drainage device removal	<ul style="list-style-type: none"> Client equipment Wound drainage device removal Client education Health care provider's orders Infection control Policies and procedures Client communication Documentation Skin integrity Client history Pain management
Provide cooling/warming measures to restore normal body temperature	<ul style="list-style-type: none"> Cooling measures Warming measures Client equipment Policies and procedures Health care provider's orders Client education Interdisciplinary communication Documentation Data collection Client baseline data Cultural competency Client safety Client communication

Linking of Knowledge Statements and Activity Statements	
Perform wound care and/or dressing change	<ul style="list-style-type: none"> Health care provider's orders Infection control Wound types Policies and procedures Wound dressing change Client safety Client education Cultural competency Documentation Client privacy Skin integrity Client communication Pain management Client equipment
Respond and intervene to a client life-threatening situation (e.g., cardiopulmonary resuscitation)	<ul style="list-style-type: none"> Cardiopulmonary resuscitation Data collection Client baseline data Interdisciplinary communication Interdisciplinary collaboration Policies and procedures Documentation Client history Responses to life-threatening situations Interventions to life-threatening situations Client communication Diagnostic test results
Intervene to improve client respiratory status (e.g., breathing treatment, suctioning, repositioning)	<ul style="list-style-type: none"> Data collection Client baseline data Respiratory disorders Health care provider's orders Client equipment Hypoxia Respiratory interventions Interdisciplinary communication Client education Client communication Documentation Diagnostic test results Client safety

Linking of Knowledge Statements and Activity Statements	
Provide care for a client with a tracheostomy	<ul style="list-style-type: none"> Tracheostomy Policies and procedures Client disease processes and conditions Client equipment Infection control Client education Health care provider's orders Interdisciplinary communication Client communication Client safety Documentation Skin integrity Client baseline data Client history
Remove wound sutures or staples	<ul style="list-style-type: none"> Health care provider's orders Client communication Client education Suture removal Staple removal Documentation Infection control Skin integrity Policies and procedures Client safety Client equipment
Provide care to client on ventilator	<ul style="list-style-type: none"> Health care provider's orders Interdisciplinary communication Interdisciplinary collaboration Client baseline data Client safety Client disease processes and conditions Client education Infection control Documentation Client communication Data collection Policies and procedures Ventilator Cultural competency Client history Medication

Linking of Knowledge Statements and Activity Statements	
Assist in the care of a client with a pacing device	<ul style="list-style-type: none"> Health care provider's orders Pacemaker Client communication Interdisciplinary communication Client education Client safety Documentation Client history Advance directive
Recognize and report basic abnormalities on a client cardiac monitor strip	<ul style="list-style-type: none"> Basic cardiac abnormalities Data collection Client baseline data Policies and procedures Chain of command Interdisciplinary communication Health care provider's orders Client communication Interdisciplinary collaboration
Provide care to client with an ostomy (e.g., colostomy, ileostomy, urostomy)	<ul style="list-style-type: none"> Ostomy types Client education Policies and procedures Health care provider's orders Client equipment Interdisciplinary communication Client communication Cultural competency Skin integrity Available resources Client nutrition Client history Infection control Fluid balance

Linking of Knowledge Statements and Activity Statements	
Identify signs and symptoms related to acute or chronic illness	<ul style="list-style-type: none"> Data collection Documentation Client communication Interdisciplinary communication Acute illness Chronic illness Client disease processes and conditions Client baseline data Client history Client allergies
Provide care for a client receiving peritoneal dialysis or hemodialysis	<ul style="list-style-type: none"> Client disease processes and conditions Data collection Interdisciplinary collaboration
Provide care for a client with fluid and electrolyte imbalance	<ul style="list-style-type: none"> Fluid and electrolyte imbalance Intake/output Laboratory values Vital signs Client history Data collection Medication Client education
Provide care for a client receiving peritoneal dialysis or hemodialysis	<ul style="list-style-type: none"> Peritoneal dialysis Hemodialysis Client vital signs Client weight Laboratory values Documentation Infection control Policies and procedures Adverse reactions Intake/output Client education



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