



COMMISSION ON NURSE CERTIFICATION

**Clinical Nurse Leader  
CNL**

**2016 Job Analysis**

Schroeder Measurement Technologies, Inc.



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## Executive Summary

In the spring of 2016, the Commission on Nurse Certification (CNC) began an exploration of the role of the Clinical Nurse Leader (CNL). To accomplish this, the CNC undertook a research-based job analysis (JA) study to explore the following questions:

- Who is the CNL?
- What are the core competencies that CNLs perform on the job?

Clinical nurse leadership is a diverse profession with practitioners working in over a dozen different nursing specialties, and CNL professionals have equally diverse résumés of education, training, and experience. Despite this diversity, there is a core set of skills that are common among CNLs across the spectrum of experience, training, education, practice setting, and location. Identifying this core set of knowledge, skills, and abilities (KSAs) was the goal of the JA study.

To support these efforts, the CNC partnered with Schroeder Measurement Technologies, Inc. (SMT), a full-service testing company with staff experienced in the performance of JA studies. Together they assembled an Advisory Committee of subject matter experts (SMEs) to provide content-area expertise and professional experience. The Committee comprised CNLs representing the diversity of responsibility, education, experience, ethnicity, practice setting (e.g., acute care inpatient, outpatient clinic, school of nursing), geographic region of practice and more. To begin the study, a comprehensive literature search was conducted which included review of approved texts, periodicals, rules and regulations, practice standards, blogs, and social media information relating to the role of the CNL.

The results – an exhaustive listing of knowledge, skills, and abilities (KSAs) required of CNLs – were presented to the Advisory Committee at a workshop in Clearwater, Florida, April 11–12, 2016. The workshop was led by Dana Anderson-Pancoe, Assistant Director of Assessment & Psychometric Services (APS) at SMT. Using the list as a starting point, the Committee removed, revised, and added KSAs to create a comprehensive list that the SMEs believed represented competent practice; the KSA list became the foundation for the job analysis survey. The Advisory Committee also developed a demographic questionnaire and established a rating scale against which the KSAs could be measured for importance to and frequency of performance in practice. The survey also offered respondents the opportunity to identify KSAs that may have been inadvertently omitted. The KSA list and demographic questionnaire were converted into an invitation-only, online survey.

Invitations to participate in a beta test of the survey were emailed to the Advisory Committee members in May 2016. Participants were asked to review the content and test the functionality of the survey. Minor edits were incorporated based upon the feedback, and the survey was finalized

and made live on the Internet on June 13, with invitations issued to all of the CNLs within the CNC database including active, inactive, retired, and lapsed CNLs. The survey included an incentive of entry into a drawing for one free registration to the 2017 CNL Summit and Research Symposium. There were 4,622 invitations sent. The “bounce-back” or email return rate was approximately 5.8% (n=268).

The survey was taken offline approximately six weeks later on July 31, 2016. During the administration window, 404 individuals logged onto the survey and entered data. Of these entries, there were 289 survey completions (i.e., data sufficient for analysis). This resulted in a return rate of 9.3%, with an adjusted return rate reflecting only complete responses of 6.6%. Both return rates are acceptable for an unsolicited survey. The Cronbach’s alpha reliability coefficient was 0.99. This statistic is bound between 0 and 1, with values closer to 1 indicating higher instrument reliability and coefficients greater than 0.70 deemed acceptable. The 0.99 calculation for this survey therefore indicates that the survey has very high internal consistency. Almost all respondents (98.9%) indicated that the survey either completely or adequately described the critical KSAs required of competent practice of the CNL. This supports near perfect confidence that the survey depth was reflective of practice among various settings, geographic locations, and realms of responsibility.

A second SME Advisory Committee meeting was held on September 16, 2016. Rachael Jin Bee Tan, Ph.D., Director of APS at SMT, facilitated the meeting via webinar. The goals of the meeting were to present, review, and consider the results of the survey and to establish exclusion criteria to differentiate among the important and non-important, performed and not-performed KSAs. Of the original 144 KSAs, 8 were removed from the outline or revised based upon statistically-based decision rules. No KSAs were added based upon open-ended comments from the survey respondents. This resulted in a final listing of 136 KSAs.

The 136 KSAs were reviewed to confirm that all were assessable, and therefore appropriate for inclusion on the CNL competency task outline. The final approved KSA listing was then translated into the CNL content outline, establishing the link between job performance of critical KSAs and successful performance on the *Clinical Nurse Leader Examination*.

The Advisory Committee was asked to consider the three domains represented in the final approved content outline, comprised of six, three, and eight subdomains each. Discussion was held concerning the complexity and number of KSAs included in each of these domains, importance ratings, and time spent by CNLs performing or using the KSAs within each domain. Through this exercise, the Committee established final domain weightings for the examination. Next, the Committee repeated this exercise to determine target subdomain weightings for the examination. The Advisory Committee reached consensus on final content area distributions and weightings (Appendix Q).

# Introduction

## *Survey Overview: The Content Validation Model*

The foundation of a valid, reliable, and legally defensible professional licensing or certification program is a well-constructed job analysis (JA) study. The JA study establishes the link between test scores achieved on certification exams and the competencies being tested, providing evidence that the examination measures the knowledge, skills, and abilities (KSAs) required for competent practice. When evidence of validity based on examination content is presented for a specific professional role, it is critical to consider the importance of the competencies being tested. The Standards for Educational and Psychological Testing, developed jointly by the American Educational Research Association (AERA), American Psychological Association (APA), and National Council on Measurement in Education (NCME), 2014, state:

### *Standard 11.2*

Evidence of validity based on test content requires a thorough and explicit definition of the content domain of interest.

### *Standard 11.7*

When empirical evidence of predictor-criterion relationships is part of the pattern of evidence used to support test use, the criterion measure(s) used should reflect the criterion construct domain of interest to the organization. All criteria used should represent important work behaviors or work outputs, either on the job or in job-relevant training, as indicated by an appropriate review of information about the job.

### *Standard 11.13*

The content domain to be covered by a credentialing test should be defined clearly and justified in terms of the importance of the content for credential-worthy performance in an occupation or profession. A rationale and evidence should be provided to support the claim that the knowledge or skills being assessed are required for credential-worthy performance in that occupation and are consistent with the purpose for which the credentialing program was instituted.

And from the American National Standards Institute (ANSI) 17024:2012 Standards:

### *Standard 8.2*

A certification scheme shall contain the following elements:

- scope of certification;
- job and task description;
- required competence;
- abilities (when applicable);
- prerequisites (when applicable);
- code of conduct (when applicable).

And the National Commission for Certifying Agencies (NCCA) Standards for the Accreditation of Certification Programs state:

*Standard 10*

The certification program must analyze, define, and publish performance domains and tasks related to the purpose of the credential, and the knowledge and/or skill associated with the performance domains and tasks, and use them to develop specifications for the assessment instruments.

*Standard 10.A*

A job/practice analysis must be conducted leading to clearly delineated performance domains and tasks, associated knowledge and/or skills, and sets of content/item specifications to be used as the basis for developing each type of assessment instrument (e.g., multiple-choice, essay, oral examination).

*Standard 10.B*

A report must be published that links the job/practice analysis to specifications for the assessment instruments.

*Standard 11*

The certification program must employ assessment instruments that are derived from the job/practice analysis and that are consistent with generally accepted psychometric principles.

*Standard 11.B*

The content sampling plan for test items or other assessment components must correspond to content as delineated and specified in the job/practice analysis.

*Standard 11.C*

An ongoing process must exist to ensure that linkage between the assessment instruments and the job/practice analysis is maintained, as assessment components are revised and replaced over time. This linkage between assessment content and job/practice analysis must be documented and available for review by stakeholders.

***Purpose of the Job Analysis Study***

In order to meet these standards, it is essential that examination content be evaluated periodically to ensure that existing outlines continue to cover the KSAs required for competent practice in the occupation or profession of interest. To this end, the Commission on Nurse Certification (CNC) worked with Schroeder Measurement Technologies, Inc. (SMT), to conduct a JA for the Clinical Nurse Leader (CNL) certification program.

The CNC and SMT were aided by a subject matter expert (SME) Advisory Committee to consider the current literature, establish an exhaustive task listing, and translate that listing into a survey instrument describing the KSAs required for competent practice as a CNL. All Advisory Committee participants (Appendix A) were considered SMEs actively participating in the nurse

leadership profession in the role of CNL. Throughout the entire JA process, the SMEs were reminded of the importance of keeping the exam content and blueprint information confidential and secure, and that they should not discuss the JA process with anyone outside of the SME panel. All SMEs completed affidavits of nondisclosure, which are kept on file at SMT headquarters in Clearwater, FL.

## **Survey Methodology**

### ***Survey Development***

In support of the development of the survey KSA listing, Dana Anderson-Pancoe, Assistant Director of Assessment & Psychometric Services (APS) at SMT, performed a comprehensive job-related literature search including review of:

- Approved publications, texts, study guides, websites, and social media sites focusing on or including information concerning nurse leadership and the role of the CNL;
- Rules and regulations governing practice;
- Current print documents and online periodicals relating to the CNL.

At the initial Job Analysis SME Advisory Committee meeting held April 11–12, 2016, in Clearwater, Florida, the Committee was provided with training and background information addressing the following concepts:

1. *The Role of the Job Analysis in a Certification Program:* The Committee was provided with an overview of the tasks that comprise the full certification program cycle of research, development, application, examination, psychometric review, and continuing education. The Committee was told exactly how, why, and where the conduct of a job analysis fits into this cycle, and how a properly-executed and applied job analysis supports content validity and legal defensibility for a certification program.
2. *Entry-Level, Minimal Competency:* In order to assess the meaningfulness of the KSA listing, and its inclusiveness of the KSAs describing competent practice, it was first necessary to fully develop the concept of the entry-level, minimally competent CNL. An important preamble to the discussion was an explanation that minimal competence does not mean low or poor levels of competence, but instead a very high level of professionalism and skills representing the point of demarcation between the competent and those who are not. Likewise, entry-level does not mean an entry-level job, but the minimum level of education, training, and experience that represents the competent CNL.

Following this discussion, the Committee agreed that despite the diversity of practitioners across the spectrum of experience, training, education, practice setting, and location, there is a set of skills and competencies that apply to all CNLs.

The Committee went on to describe the education, experience, and training required to be a CNL, which is to be a graduate of a CNL education program or be a student in their last term of a CNL education program. The Committee agreed that this criterion described the depth and breadth of education, training, and experience common among CNLs, and that this definition should be used to describe the minimally-competent, entry-level CNL role in the JA survey.

### **List of Knowledge, Skills, and Abilities (KSAs)**

The Committee next reviewed the assembled KSA listing, identifying all knowledge elements associated with current practice. The Committee felt it was best to be as inclusive as possible of the range of practice, to enable the collection of responses across the importance and frequency scales. Supporting this effort, the Committee eliminated KSAs that might not be readily measured.

### **Survey Rating Scale**

The KSA listing was placed into a survey format that included a welcome, instructions, a demographic questionnaire, and one survey query for each knowledge element that addressed both importance and frequency, along with instructions on how to rate KSAs that were not performed or applied, as follows:

*This survey includes a list of knowledge, skills, and abilities that may be required of a Clinical Nurse Leader (CNL) for competent practice and public protection. This list of competencies was developed by a diverse group of CNLs who are subject matter experts in the field.*

*Use the rating scale below to assess each element.*

*First, please indicate if the competency is NOT performed or applied by the CNL.*

*Next, if the competency is performed or applied, how important is the element to public protection and competent practice of a CNL.*

### **Rating Scale**

*Please select "Not Performed or Applied" if the CNL does NOT perform or apply the competency in their practice. For those competencies performed or applied, provide an importance rating using the scale range from "Not Important" to "Extremely Important"*

to indicate how important the element is to the practice of a competent CNL. If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE	
0	Not Performed or Applied
1	Not Important
2	Low Importance
3	Moderately Important
4	Extremely Important

For purposes of data analysis, the ratings were assigned values of 0 (*Not Performed or Applied*) to 4 (*Extremely Important*). The performance ratings were evaluated separately from the importance ratings; analyses of the performance ratings focused on the percentage of respondents who performed a task. Analyses of importance ratings focused on the relative importance of each KSA among those respondents who indicated they performed or applied the competency in their role as a CNL.

### **Demographic Questions**

After finalizing the KSA list and survey rating scale, the SMEs developed a list of demographic questions in order to provide insight into respondent professional experience levels, education, practice settings, geographic region, gender, age, and ethnicity. The following demographic questions were approved for inclusion on the survey:

1. How many years have you worked in the nursing field?
2. Do you presently hold the CNL certification?
3. How many years have you held the CNL credential?
4. Does your organization have formal CNL role positions?
5. Regardless of your title, are you practicing in a Certified Clinical Nurse Leader (CNL) role? If not, how would you describe your current role?
6. Which of the following best describes your job title?
7. What is your primary work setting?
8. In which U.S. state or territory do you primarily work?
9. In which nursing specialties do you work?
10. Does your employer support/recognize CNL certification by providing any incentives?
11. What is your hourly wage as a CNL?
12. What is your age?
13. What is your gender?
14. What is your racial/ethnic background?

### **Post-Survey Questions and Incentives**

In addition to the demographic questions, which appeared at the beginning of the survey, there were also several post-survey questions included to gather additional information. Respondents were asked to rate the adequacy of the scope of the survey; if respondents felt the scope was inadequate, a text box was provided into which they were encouraged to record comments or reasoning for this judgment. A second open-ended question offered respondents the opportunity to identify any KSAs they believed were missing from the survey.

Finally, respondents were asked to consider the relative importance of each of the three major domains of the CNL role, and assign a weight reflecting the percentage of questions that each domain should contribute to the certifying examination. The survey program dynamically summed the percentages entered in order to assist respondents in achieving a total weight of 100% across all three domains.

Immediately before submitting their responses, participants were offered the opportunity to record their name and email address to be entered into a drawing for one free registration to the 2017 CNL Summit and Research Symposium. Entry into the drawing was voluntary, and no link was established between survey data or demographic responses and drawing participants. The full text of the survey can be found in Appendix B.

### ***Survey Testing***

Before the survey was posted and opened to general participation, a beta test was performed by SME volunteers who logged on and tested all aspects of the survey. The SME responses were checked to ensure the system was coding all data correctly for analysis. Minor edits and changes were made to ensure that the survey was easy to use, the language understandable, and all selection choices and text box collections were functioning properly.

### ***Sampling Methodology and Data Collection***

In June 2016, the CNC made a call for participation for the online survey through their member database. Individuals that at one point held the CNL designation<sup>1</sup> were contacted. Survey invitations were sent to all known practitioners in order to ultimately increase the number of total responses, which helps ensure the reliability and representativeness of the survey results. Of the 4,622 emails sent, 268 were returned for a 5.8% bounce-back rate and a total potential respondent pool of 4,354 individuals. The online survey was made available to respondents from June 13, 2016, through July 31, 2016, a period of approximately six weeks. There were three survey reminders emailed to potential respondents on June 30, July 13, and July 25.

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<sup>1</sup> CNLs identified as active, inactive, retired, and lapsed were included in the survey invitation.

## Survey Results

At the close of the administration window, SMT collected the data and analyzed respondent demographics and frequency and importance ratings. A total of 404 individuals responded to the survey; of these respondents, 115 incomplete entries were removed. These respondents either provided no or very few ratings to the KSA elements. This resulted in a return rate of 9.3%, with an adjusted return rate reflecting only complete responses of 6.6%. Both return rates are acceptable for an unsolicited survey and are adequate to support the data analyses. The following results are based on a sample of 289 respondents.

The CNL survey results are presented as follows:

1. Survey adequacy and reliability information
2. Demographic results
3. KSA ratings
  - a. Frequency of nonperformance. The number and percentage of respondents who indicated CNLs do not perform or apply the competency in practice.
  - b. Mean importance. For those respondents that indicated CNLs perform or apply a competency in their practice, the mean (average) importance rating was calculated along with the associated standard deviation.
  - c. Subgroup analyses. Analyses were conducted on the importance ratings to ensure that no subgroup of respondents rated the KSAs significantly differently than another subgroup of respondents. Subgroups were created based on the demographic variables of years of experience, practice setting, geographic region of practice, and whether the respondent currently works in a CNL role. Mean importance ratings were calculated for the subgroups, including corresponding analysis of variance (ANOVA) with Bonferroni correction.

## *Survey Adequacy and Reliability Information*

### **Survey Adequacy**

At the end of the survey, respondents were asked how well the survey covered the knowledge necessary to practice as a CNL. Of the 273 responses to this question, the majority (n=270, 98.9%) indicated that the survey adequately or completely covered the competencies required of a CNL. See Table 1.

**Table 1**

### *Survey Adequacy*

<b>Adequacy</b>	<b>Frequency</b>	<b>Percentage</b>
Inadequately	3	1.1
Adequately	113	41.4
Completely	157	57.5
<b>Subtotal</b>	<b>273</b>	<b>100.0</b>
No response	16	
<b>Total</b>	<b>289</b>	

### **Missing KSAs**

Respondents were also afforded the opportunity to provide feedback on KSA elements or competencies that they felt were missing from the survey. These free-text responses, without any edits, appear in Appendix C.

### **Reliability Estimate**

The Cronbach's Alpha reliability estimate was calculated to evaluate the internal consistency of the survey ratings; i.e., whether the KSAs measure a single, unidimensional construct – in this case, the competency of a CNL. Reliability estimates are bound between 0 and 1, with higher values indicating higher reliability, meaning that ratings obtained from the survey are reliable and consistent. As a rule of thumb, reliability estimates above 0.70 are considered acceptable. For this survey, Cronbach's Alpha was 0.99 for the importance ratings, demonstrating very high confidence in the reliability of the survey results.

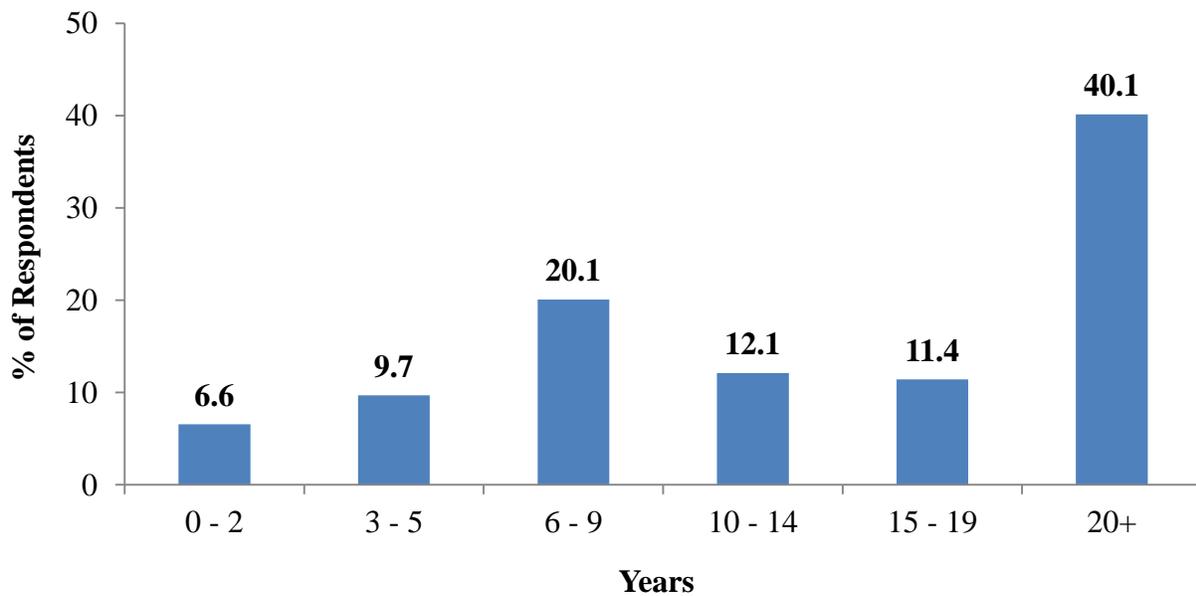
## Demographic Results

### Years of Experience

Respondents were provided with six options and asked to select the one corresponding to the number of years they have been working in the nursing field. There was a good distribution of respondents across the year ranges so that all levels of experience were represented. See Table 2 and Figure 1.

**Table 2**  
*Years Worked in the Nursing Field*

Years	Frequency	Percent
0–2	19	6.6
3–5	28	9.7
6–9	58	20.1
10–14	35	12.1
15–19	33	11.4
20+	116	40.1
<b>Subtotal</b>	<b>289</b>	<b>100.0</b>
No response	0	
<b>Total</b>	<b>289</b>	



**Figure 1.** Years worked in the nursing field.

### **CNL Certification**

Respondents were asked whether they presently hold the CNL certification. Of the 285 individuals that provided responses, 268 (94.0%) held the CNL designation.

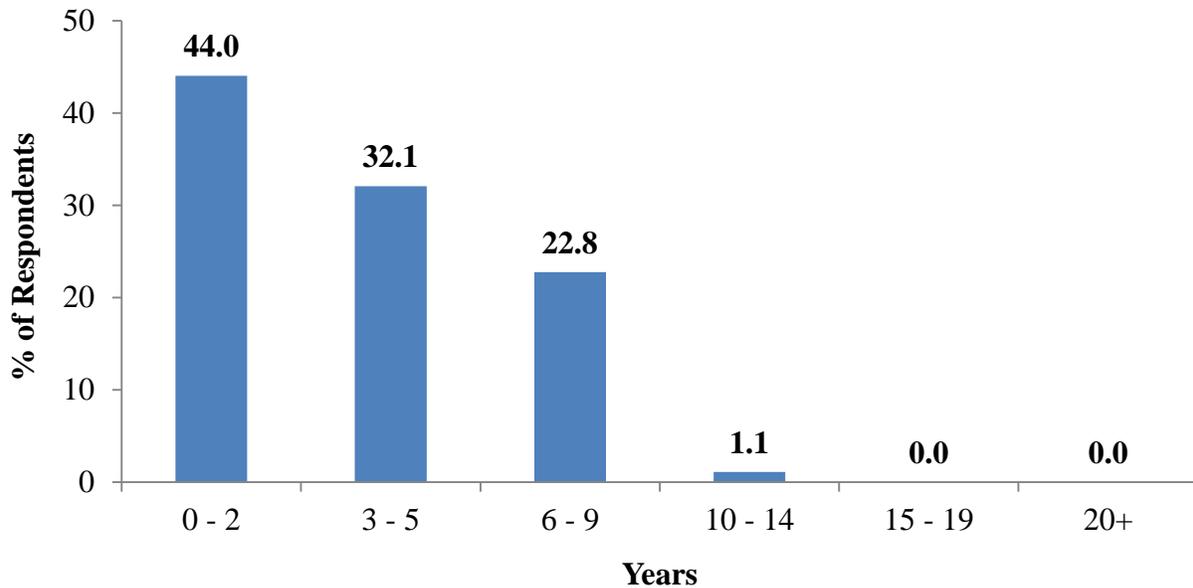
### **Years Certified**

Respondents were asked to indicate the number of years they have been certified as a CNL. There were six options for the question. The 21 respondents that either did not hold CNL certification or did not respond to the question were not counted in the total. See Table 3 and Figure 2.

**Table 3**

*Years Certified as a CNL*

<b>Years</b>	<b>Frequency</b>	<b>Percent</b>
0–2	118	44.0
3–5	86	32.1
6–9	61	22.8
10–14	3	1.1
15–19	0	0.0
20+	0	0.0
<b>Subtotal</b>	<b>268</b>	<b>100.0</b>
No response	0	
<b>Total</b>	<b>268</b>	



**Figure 2.** Years certified as a CNL.

**CNL Role within Organization**

Respondents were asked whether their organization has formal CNL role positions. Of the 288 responses to this question, 134 indicated Yes (46.5%).

**Practicing as a CNL**

Respondents were also asked whether they are currently practicing in a CNL role, regardless of their job title. Of the 287 responses to this question, 153 indicated Yes (53.3%).

### Current Role

The 134 respondents who indicated they were not currently practicing as a CNL were presented with a list of eleven roles and asked to indicate which one best describes their current position. Table 4 contains the results. Appendix D contains the free-text responses of the 15 individuals who selected “Other.”

**Table 4**  
*Current Role*

<b>Current Role</b>	<b>Frequency</b>	<b>Percent</b>
Not currently employed in nursing	2	1.5
Staff Nurse	42	31.6
Academic Faculty	22	16.5
Consulting	0	0.0
Nursing Administrator	4	3.0
Clinical Research	0	0.0
Manager/Director	14	10.5
Quality Improvement/Risk Management	10	7.5
Patient Navigator/Care Coordinator	10	7.5
Clinical Educator	14	10.5
Other	15	11.3
<b>Subtotal</b>	<b>133</b>	<b>100.0</b>
No response	1	
<b>Total</b>	<b>134</b>	

## Job Title

Table 5 shows the distribution of survey respondents according to their job title. Appendix E contains the free-text responses of the 31 individuals who selected “Other.”

**Table 5**  
**Job Title**

<b>Job Title</b>	<b>Frequency</b>	<b>Percent</b>
Clinical Nurse Leader	98	34.4
Clinical Educator	19	6.7
Staff Nurse	44	15.4
Quality Care Coordinator	9	3.2
Care Coordinator	10	3.5
Case Manager	8	2.8
School Nurse	2	0.7
Clinical Director	5	1.8
Unit Coordinator	3	1.1
Patient and Care Facilitator	6	2.1
CNL Faculty	3	1.1
Manager/Director	26	9.1
Academic Faculty without CNL program	9	3.2
Academic Faculty with CNL Program	12	4.2
Other	31	10.9
<b>Subtotal</b>	<b>285</b>	<b>100.0</b>
No response	4	
<b>Total</b>	<b>289</b>	

## Work Setting

Table 6 shows the distribution of survey respondents according to their primary work setting. Appendix F contains the free-text responses of the 21 individuals who selected “Other.” The majority of respondents (n=178, 62.0%) worked in an acute care inpatient setting.

**Table 6**  
*Work Setting*

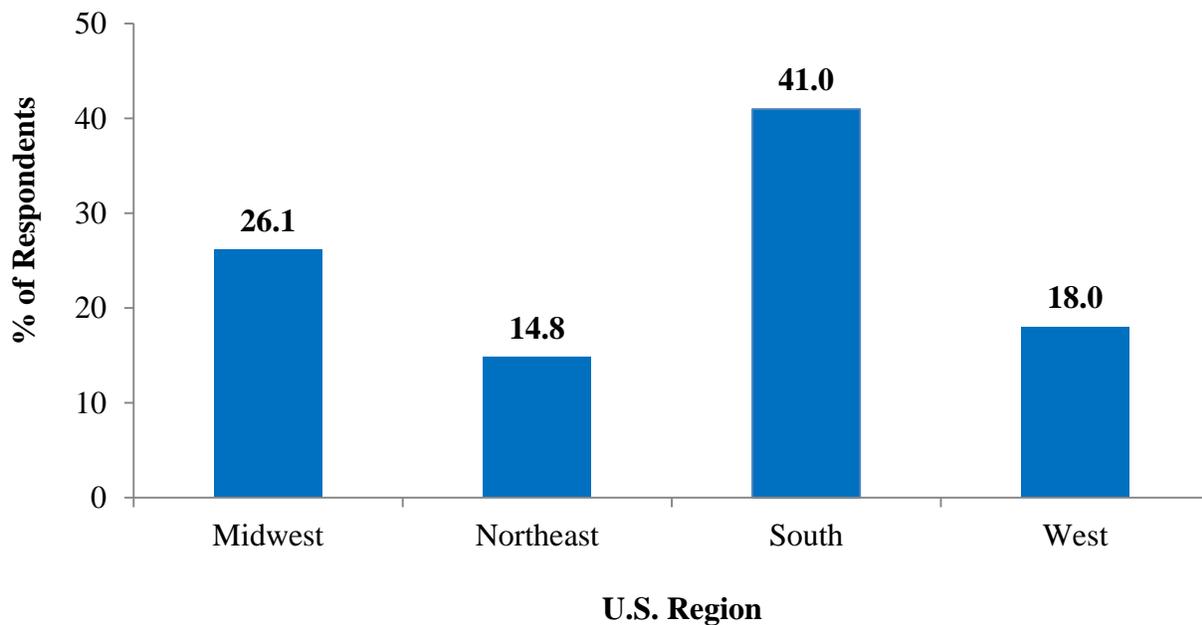
<b>Work Setting</b>	<b>Frequency</b>	<b>Percent</b>
Acute Care Inpatient	178	62.0
Outpatient Clinic or Surgery Center	33	11.5
Home Health	2	0.7
Community/Public Health	9	3.1
School/University Health	5	1.7
Nursing Home/Long-Term Care/Sub-Acute Care	11	3.8
Hospice	1	0.3
Physician Practices (solo or group)	2	0.7
Nurse-Managed Practice	1	0.3
School of Nursing	24	8.4
Other	21	7.3
<b>Subtotal</b>	<b>287</b>	<b>100.0</b>
No response	2	
<b>Total</b>	<b>289</b>	

## Geographic Region of Practice

Respondents were asked to indicate the U.S. state or geographic region in which they primarily practice. Six individuals did not provide a response to this question. The breakdown of remaining respondents (n=283) by U.S. state appears in Appendix G. Figure 3 shows the distribution of respondents by U.S. census region, which are defined in Table 7.

**Table 7**  
*Geographic Region of Practice*

<b>Region</b>	<b>States</b>	<b>Frequency</b>	<b>Percent</b>
<b>Northeast</b>	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, and Pennsylvania	42	14.8
<b>Midwest</b>	Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota	74	26.1
<b>South</b>	Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington D.C., West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas	116	41.0
<b>West</b>	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, and Washington	51	18.0
<b>Subtotal</b>		<b>283</b>	<b>100.0</b>
Outside U.S.		0	
No response		6	
<b>Total</b>		<b>289</b>	



**Figure 3.** Geographic region of practice.

## Specialty Areas

Respondents were asked in which specialty areas of nursing they work. Table 8 contains a list of the 18 specialty areas presented in the survey for respondents to select all that apply. Appendix H contains the free-text responses of the 49 individuals who selected “Other.”

**Table 8**  
*Specialty Areas*

<b>Nursing Specialty</b>	<b>Frequency</b>	<b>Percent</b>
Acute Care	95	32.9
Adult Health	50	17.3
Ambulatory Care	30	10.4
Cardiovascular	34	11.8
Critical Care	43	14.9
Diabetes Management	16	5.5
Emergency	21	7.3
Gerontology	31	10.7
Informatics	8	2.8
Medical-Surgical	88	30.4
Neuroscience	26	9.0
Oncology	39	13.5
Pediatrics	32	11.1
Perioperative	14	4.8
Psychiatric & Mental Health	16	5.5
Public Health	16	5.5
Neonatology	11	3.8
Women's Health	22	7.6
Other	49	17.0

### **Incentives for Certification Offered by Employers**

Respondents were asked whether their employer supports and/or recognizes CNL certification by providing any incentives. Table 9 contains the options provided for respondents to select all that apply. Less than a third of employers provided incentives (30.4%), and fewer than one in four employers (22.8%) reimburse the CNL exam fee or fund continuing education (23.2%). See Table 9. Appendix I contains the free-text responses of the 15 individuals who selected “Other.”

**Table 9**  
*Incentives for Certification*

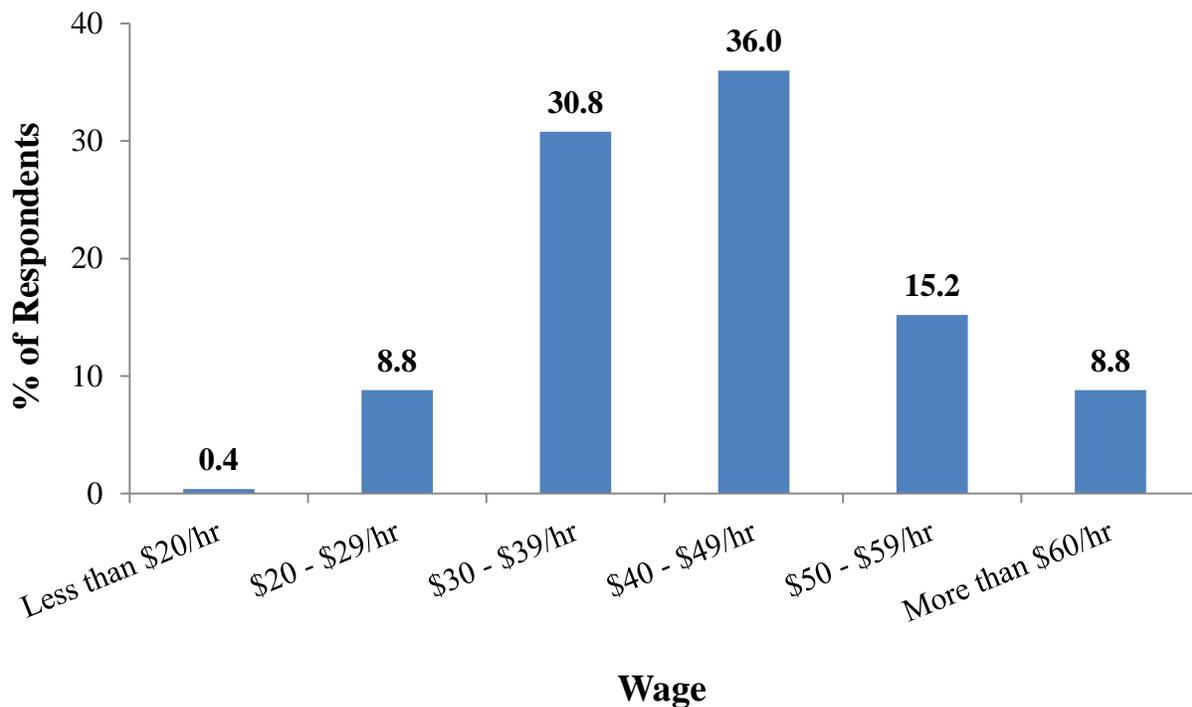
<b>Incentives</b>	<b>Frequency</b>	<b>Percent</b>
None	88	30.4
Employment as CNL	113	39.1
One-time bonus	18	6.2
Reimburses exam fee	66	22.8
Reimburses recertification fee	51	17.6
Increase in hourly wage or salary	59	20.4
Provides continuing education funding	67	23.2
Other	15	5.2

### Wage as a CNL

Respondents were asked to select their wage from a list of hourly rates. Table 10 and Figure 4 contain the distribution of responses (n=250). A total of 39 respondents preferred not to answer this question or did not provide a response.

**Table 10**  
*Wage as a CNL*

Wage	Frequency	Percent
Less than \$20/hr	1	0.4
\$20 - \$29/hr	22	8.8
\$30 - \$39/hr	77	30.8
\$40 - \$49/hr	90	36.0
\$50 - \$59/hr	38	15.2
More than \$60/hr	22	8.8
<b>Subtotal</b>	<b>250</b>	<b>100.0</b>
Prefer not to answer	30	
No response	9	
<b>Total</b>	<b>289</b>	



**Figure 4.** Wage as a CNL.

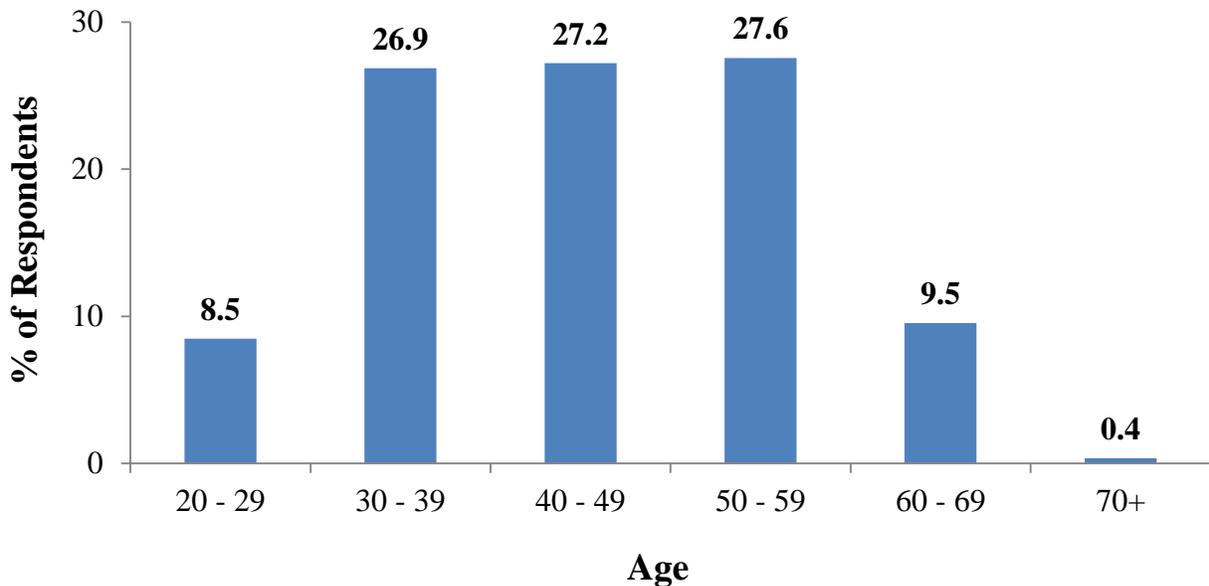
## Age

Respondents were asked to indicate their age. Table 11 and Figure 5 contain the distribution of survey respondents (n=283). A total of six respondents preferred not to answer this question or did not provide a response.

**Table 11**

### Age

Age Range	Frequency	Percent
20–29 years	24	8.5
30–39 years	76	26.9
40–49 years	77	27.2
50–59 years	78	27.6
60–69 years	27	9.5
70 years or older	1	0.4
<b>Subtotal</b>	<b>283</b>	<b>100.0</b>
Prefer not to answer	3	
No response	3	
<b>Total</b>	<b>289</b>	



*Figure 5.* Age.

## Gender

The majority of respondents (n=267, 93.0%) were female. Two individuals did not provide a response and an additional four indicated that they preferred not to answer the question.

## Race or Ethnicity

Table 12 contains the distribution of survey respondents (n=280) according to their race or ethnic background. The majority of respondents (n=215, 77.3%) indicated that their ethnic background was “White, Non-Hispanic.” The two “Other” respondents identified themselves as mixed race.

**Table 12**

### *Race or Ethnicity*

<b>Racial/Ethnic Background</b>	<b>Frequency</b>	<b>Percent</b>
American Indian or Alaska Native	0	0.0
Asian	20	7.2
Black or African American	27	9.7
Native Hawaiian or other Pacific Islander	2	0.7
White, Non-Hispanic	215	77.3
Hispanic or Latino	12	4.3
Other	2	0.7
<b>Subtotal</b>	<b>278</b>	<b>100.0</b>
Prefer not to answer	10	
No Response	1	
<b>Total</b>	<b>289</b>	

## ***Frequency and Importance Ratings***

After answering the demographic questions, respondents were asked to provide a single rating indicating whether they think that the competency is performed or applied by a CNL, and how important a given competency is, if performed. If respondents believed they did not perform or apply a competency in their practice, they were asked to rate it as *Not Performed or Applied* which was valued at zero on the importance scale. Respondents who did perform or apply the competency were asked to rate it on a 1–4 importance/criticality scale with “1” representing a KSA that was *Not Important*, “2” representing a KSA of *Low Importance*, “3” representing a KSA deemed *Moderately Important*, and “4” representing a KSA that was *Extremely Important*.

Appendices J, K, and L contain data describing the number of respondents who provided a frequency or importance rating for each KSA (n=144), the percentage of respondents who indicated that the competency is *Not Performed or Applied* in the CNL role, and the mean importance rating and associated standard deviation.

Appendix J presents the KSAs in survey order, and provides both the rate of nonperformance and mean importance rating for each KSA. Each KSA has an identifier (Element) based on its domain and subdomain assignment at the end of the in-person meeting.

Appendix K presents the KSAs sorted by highest to lowest rate of nonperformance.

Appendix L presents the KSAs sorted by lowest to highest mean importance rating. Importance ratings were calculated using only the 1–4 ratings; all *Not Performed or Applied* ratings were eliminated from the calculations.

## Frequency Ratings

Table 13 lists the three least and most performed KSAs according to the survey results. The N and % columns reflect how many and the percentage of respondents that indicated CNLs do not perform or apply the competency in their work. The KSA with the highest nonperformance rating was “Clinical Outcomes Management: Healthcare Policy: Apply strategies to influence regulatory, legislative, and public policy in private and public sectors to promote healthy communities.” This KSA had a nonperformance rating of 23.9%. The three Least Performed KSAs in Table 13 are the only KSAs with nonperformance ratings exceeding 20%.

**Table 13**  
*The Three Least and Most Used or Applied KSAs*

<i>Least Performed</i>				
<b>Element</b>	<b>Domain &amp; Subdomain</b>	<b>KSA</b>	<b>N</b>	<b>%</b>
IID3	Clinical Outcomes Management: Healthcare Policy	Apply strategies to influence regulatory, legislative, and public policy in private and public sectors to promote healthy communities	68	23.9
IIIB8	Care Environment Management: Healthcare Finance and Economics	Analyze and disseminate cost effective outcomes related to CNL practice to policy makers, healthcare providers, and patients	59	21.3
IIIB5	Care Environment Management: Healthcare Finance and Economics	Apply basic business and economic principles and practices, including but not limited to: budgeting, product testing, marketing, and organizational theory to the delivery of healthcare at the microsystem level	57	20.6
<i>Most Performed</i>				
<b>Element</b>	<b>Domain &amp; Subdomain</b>	<b>KSA</b>	<b>N</b>	<b>%</b>
IB11	Nursing Leadership: Interprofessional Communication and Collaboration Skills	Recognize and utilize the roles and responsibilities of the interprofessional team	6	2.1
IB8	Nursing Leadership: Interprofessional Communication and Collaboration Skills	Construct relationships with interprofessional team including management and administration	5	1.7
IA12	Nursing Leadership: Horizontal Leadership	Demonstrate higher order critical thinking and problem solving skills	4	1.4

## Mean Importance

The mean importance ratings for the KSAs ranged from 3.03 to 3.82 (out of 4). All KSAs had at least a mean importance rating of 3.0 (*Moderately Important*). “Clinical Outcomes Management: Healthcare Policy: Apply strategies to influence regulatory, legislative, and public policy in private and public sectors to promote healthy communities,” the KSA with the highest rate of nonperformance, was also among the top three Least Important KSAs with a mean importance rating of 3.17. See Table 14.

**Table 14**  
*The Three Least and Most Important KSAs*

<i>Least Important</i>				
Element	Domain & Subdomain	KSA	N	Mean
IC1	Nursing Leadership: Healthcare Advocacy	Develop a political voice as a member of the nursing profession to influence access to care and provision of quality services to all	243	3.03
IIB2	Clinical Outcomes Management: Knowledge Management	Participate in disease surveillance and investigation	241	3.15
IID3	Clinical Outcomes Management: Healthcare Policy	Apply strategies to influence regulatory, legislative, and public policy in private and public sectors to promote healthy communities	217	3.17
<i>Most Important</i>				
Element	Domain & Subdomain	KSA	N	Mean
IC10	Nursing Leadership: Healthcare Advocacy	Advocate for patients, particularly the most vulnerable	277	3.78
IIID5	Care Environment Management: Evidence-Based Practice	Use current evidence to improve patient care	266	3.78
IA12	Nursing Leadership: Horizontal Leadership	Demonstrate higher order critical thinking and problem solving skills	283	3.82

## ***Subgroup Analyses***

In addition to importance ratings for the entire respondent sample, averages were also calculated for various respondent subgroups, which provides for statistical comparisons among subgroups. This was of particular interest because an important focus of the research is the commonality of critical KSAs across the demographics of the CNL. To this end, subgroup analyses were performed on the following demographic questions:

- Years of experience in nursing
- Practice setting
- Geographic region of practice
- CNL Role

Analysis of Variance (ANOVA) is a statistical method used to test for differences among three or more means<sup>2</sup>. ANOVA was conducted to compare the mean importance ratings across the subgroups to ensure that results were not being swayed by respondents from a particular demographic.

The SME Committee evaluated these subgroup analyses when determining the final content outline. Appendices M, N, O, and P contain the average importance ratings of the KSAs by the various subgroups of respondents, with statistical differences among the groups calculated: significant differences at the  $p=0.05$  and  $p=0.01$  levels are noted with an asterisk (\*) and double-asterisks (\*\*), respectively. All KSAs that had significant differences appear at the beginning of each table, followed by the remaining KSAs in survey order.

### **Average Importance Ratings by Years of Experience**

Appendix M (Table M-1) compares the average importance ratings of the KSAs by respondents grouped according to years of nursing experience. The groups compared are Group 1 representing respondents with experience of 0–5 years of experience ( $n=47$ ), Group 2 representing respondents with 6–9 years of experience ( $n=58$ ), Group 3 representing respondents with 10–19 years of experience ( $n=68$ ), and Group 4 representing respondents with 20 or more years of experience ( $n=116$ ).

There were 48 significant differences among the subgroups; these differences occurred across 27 KSAs. The findings can be characterized as respondents with the highest level of experience (Group 3 and 4) assigning higher importance ratings to KSAs, as compared with the less experienced groups (Groups 1 and 2). The largest mean importance difference was 0.50, on KSA ID6: *Nursing Leadership: Implementation of the CNL Role: Collaborate with a network of CNL*

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<sup>2</sup> *t*-tests were performed for the CNL role which only had two subgroups.

professionals at the system, regional, national, or international level. This KSA had a mean importance rating of 3.06 for respondents with 0–5 years of experience (Group 1) and a mean importance rating of 3.56 for respondents with 10–19 years of experience (Group 3). Although this is a half point difference, both groups rated the KSA higher than *Moderately Important* which indicates a significant but not important difference.

### **Average Importance Ratings by Practice Setting**

Appendix N (Table N-1) compares the average importance ratings of the KSAs by respondents grouped according to practice setting. There were only a sufficient number of respondents in three groups to run ANOVA: Acute care inpatient (n=178), outpatient clinic/surgery center (n=33), and school of nursing (n=24).

There were 51 significant differences among the subgroups; these differences occurred across 30 KSAs. All differences were between respondents working in acute care inpatient or a school of nursing and respondents working in an outpatient clinic or surgery center. Respondents working in the latter group (O) assigned lower importance ratings to KSAs, as compared with respondents working in acute care inpatient (Group A) or a school of nursing (Group S). The largest mean importance difference was 0.87, on KSA IIIB3: *Care Environment Management: Healthcare Finance and Economics: Evaluate the fiscal context in which practice occurs*. This KSA had a mean importance rating of 2.72 for respondents working in Group O and a mean importance rating of 3.59 for respondents working in Group S.

### **Average Importance Ratings by Geographic Region of Practice**

Appendix O (Table O-1) compares the average importance ratings of the KSAs by respondents grouped according to geographic region of practice within the U.S. The groups compared are Group M representing respondents from the Midwest (n=74), Group N representing respondents from the Northeast (n=42), Group S representing respondents from the South (n=116), and Group W representing respondents from the West (n=51).

There were 22 significant differences among the subgroups; these differences occurred across 12 KSAs. The findings can be characterized as respondents from the West (Group W) assigning higher importance ratings to KSAs, as compared with respondents from the other regions. The largest mean importance difference was 0.53, on KSA IIB1: *Clinical Outcomes Management: Knowledge Management: Collect data that documents the characteristics, conditions, and outcomes for various patient groups*. This KSA had a mean importance rating of 3.11 for respondents from Group W and a mean importance rating of 3.64 for respondents from Group N. Although this is a half point difference, both groups rated the KSA higher than *Moderately Important* which indicates a significant but not important difference.

### **Average Importance Ratings by CNL Role Status**

Appendix P (Table P-1) compares the average importance ratings of the KSAs by respondents grouped according to whether they are currently practicing in a CNL role, Yes or No. The two groups were close in size with the Yes group containing 153 respondents while there were 134 respondents in the No group. There were only two significant differences between the two groups; and they were both very small (0.18 and 0.23) and therefore not important.

## *Domain Weights*

Survey respondents were asked to assign a percentage to each domain in the survey, reflecting the proportion of questions (items) that should appear on the exam from each content area. Table 15 contains descriptive statistics of respondents' average domain weights for the three content areas on the survey.

**Table 15**  
*Descriptive Statistics of Respondent Domain Weights*

<b>Domain</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Standard Deviation</b>
Nursing Leadership	0.0	100.0	35.2	12.6
Clinical Outcomes Management	0.0	80.0	35.9	11.5
Care Environment Management	0.0	75.0	28.9	10.0

## **Finalizing the Examination Blueprint**

SMT conducted a second job analysis meeting on September 16, 2016, via webinar with an SME panel (Appendix A). The meeting was facilitated by Rachael Jin Bee Tan, Ph.D., the Director of Assessment & Psychometric Services at SMT. The goals of the meeting were to:

1. Review and consider the results of the survey and to establish exclusion criteria to differentiate among the important and non-important, performed and nonperformed KSAs.
2. Finalize the CNL content outline and domain and subdomain weights.
3. Determine the number of scored and pretest questions on the examination.
4. Determine test administration details such as use of scratch paper, open/closed book exam, and administration time.
5. Confirm the minimum eligibility and recertification requirements.

After participant introductions, Dr. Tan provided an overview of the test development cycle, the job analysis process and steps completed to-date, the meeting goals, and summary information about the survey (e.g., adequacy, response rate, reliability).

The Committee was presented with the demographic results and the total sample and subgroup analyses of the survey data. As a group they reviewed the data presented in appendices J-P, and determined whether findings warranted the deletion of any KSAs from the content outline.

### ***Finalizing the Content Outline***

#### **Removal of KSAs**

The SMEs reviewed all KSAs that had a nonperformance rating greater than 15% or a mean importance rating less than 3.25 (between *Moderately Important* and *Extremely Important*). These criteria resulted in a review of 25 KSAs. After extensive discussion, the group decided that eight KSAs should be removed from the content outline. Five of the KSAs were removed and the other three were combined with or already covered by other KSAs. See Table 16 for more information about these KSAs.

**Table 16**  
***KSAs Removed from the Content Outline***

<b>Element</b>	<b>Domain &amp; Subdomain</b>	<b>Original KSA</b>	<b>Revised KSA</b>	<b>% NP</b>	<b>Mean</b>
IC1	Nursing Leadership: Healthcare Advocacy	Develop a political voice as a member of the nursing profession to influence access to care and provision of quality services to all	NA – Removed due to low importance rating	15.6%	3.03
IIB2	Clinical Outcomes Management: Knowledge Management	Participate in disease surveillance and investigation	NA – Removed due to low importance rating	16.3%	3.15
IID1	Clinical Outcomes Management: Healthcare Policy	Apply micro-, meso-, and macrosystems perspectives when analyzing healthcare policy	IID5: Analyze the effect of local, state, and/or national healthcare policy as they apply to the standards of care and scope of practice in the microsystem	15.3%	3.35
IID3	Clinical Outcomes Management: Healthcare Policy	Apply strategies to influence regulatory, legislative, and public policy in private and public sectors to promote healthy communities	NA – Removed due to high rate of nonperformance	23.9%	3.17
IID6	Clinical Outcomes Management: Healthcare Policy	Differentiate between legislative and regulatory processes and how they impact nursing practice and healthcare delivery	IID7: Identify the influence of regulatory guidelines and quality controls within the healthcare delivery system	16.2%	3.20
IID8	Clinical Outcomes Management: Healthcare Policy	Evaluate local, state, and national socioeconomic and health policy issues and trends as they relate to the delivery of healthcare	IID5: Analyze the effect of local, state, and/or national healthcare policy as they apply to the standards of care and scope of practice in the microsystem	18.7%	3.18

<b>Element</b>	<b>Domain &amp; Subdomain</b>	<b>Original KSA</b>	<b>Revised KSA</b>	<b>% NP</b>	<b>Mean</b>
IIIB5	Care Environment Management: Healthcare Finance and Economics	Apply basic business and economic principles and practices, including but not limited to: budgeting, product testing, marketing, and organizational theory to the delivery of healthcare at the microsystem level	NA – Removed due to high rate of nonperformance	20.6%	3.22
IIIB8	Care Environment Management: Healthcare Finance and Economics	Analyze and disseminate cost effective outcomes related to CNL practice to policy makers, healthcare providers, and patients	NA – Removed due to high rate of nonperformance	21.3%	3.42

The Committee also reviewed the results of the subgroup analyses, but agreed that no additional KSAs needed to be removed from the content outline.

### **Addition of KSAs**

After determining that no KSAs should be removed from the content outline, the SMEs reviewed the respondent suggestions for knowledge elements that were missing from the survey to determine whether any KSAs should be added to the content outline. After reviewing the comments and feedback from survey respondents (Appendix C), the SME panel was in agreement that no KSAs should be added to the content outline.

### ***Domain Weighting***

Based on the above inclusion criteria and decisions of the SME panel, the CNL content outline was finalized. The next step was for the SMEs to determine the domain weights, or the percentage of questions each of the three content areas will contribute to the examination.

The SMEs used the average domain weights suggested by the respondents, along with consideration of the number of KSAs in a given domain, to assign their own individual weights to the three content areas. After the SMEs made their decisions, each verbalized their weights for Dr. Tan to record on a spreadsheet presented for the entire group to see via the webinar software. Table 17 contains the SME-suggested domain weights. As can be seen by the small standard deviations of the ratings, the SMEs had very similar opinions on the appropriate domain weights for the exam.

**Table 17**  
***Results of Domain Weighting Exercise***

<b>Domain</b>	<b>SME</b>					<b>Average</b>	<b>Standard Deviation</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>		
Nursing Leadership	33	35	33	33	35	33.8	1.1
Clinical Outcomes Management	35	35	33	34	35	34.4	0.9
Care Environment Management	32	30	34	33	30	31.8	1.8

After reviewing all data, the SMEs finalized the domain weights, which were the rounded SME-proposed values. The SMEs also suggested subdomain weights for the exam, but, unlike the domain weights, the subdomain weights are targets that can vary somewhat across exam forms.

After the webinar, the SMEs discussed via email the final exam blueprint and unanimously decided to move a few subdomains into different domains within the outline, transferring all KSAs to the new domain. Because all subdomains were weighted by the SMEs during the meeting, the new domain weights were calculated based on the final subdomain composition. Table 18 contains the final domain and subdomain weights for the CNL exam.

**Table 18**

*Final Content Outline and Domain and Subdomain Weights for the CNL Exam*

<b>Domain</b>	<b>Weight (%)</b>
<b>I. Nursing Leadership</b>	<b>32</b>
A. Horizontal Leadership	7
B. Healthcare Advocacy	6
C. Implementation of the CNL Role	7
D. Lateral Integration of Care Services	7
E. Patient Assessment	3
F. Ethics	2
<b>II. Clinical Outcomes Management</b>	<b>23</b>
A. Illness/Disease Management	9
B. Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	9
C. Healthcare Policy	5
<b>III. Care Environment Management</b>	<b>45</b>
A. Knowledge Management	11
B. Healthcare Systems/Organizations	5
C. Interprofessional Communication and Collaboration Skills	7
D. Team Coordination	6
E. Quality Improvement and Safety	6
F. Evidence-Based Practice	5
G. Healthcare Finance and Economics	3
H. Healthcare Informatics	3

## ***Exam Format and Length***

Another meeting task was to determine the format and total length of the examination that should be developed based on the newly-approved blueprint.

The group reviewed the final content outline and agreed that all KSAs could be tested using the current exam format of four-option multiple-choice questions. As the number of domains stayed the same from the old to new content outline, the group agreed that the current exam length of 140 items, including 130 scored and 10 pretest items, was appropriate. The SMEs also agreed that the current test administration time of three hours was sufficient to complete the 140-item exam.

Appendix Q contains the final detailed content outline (examination blueprint) for the CNL certifying examination.

## **Conclusion**

The job analysis research answered the two critical questions posed in the introduction to the report: The first asked *Who is the CNL?* The second asked *What are the core competencies that CNLs perform on the job?* The results of the demographic questionnaire provided a comprehensive profile of the typical CNL, and the survey data analyses provided job-related information concerning a core set of KSA statements that describe what competencies the CNL performs and applies in practice. Analyses ensured that there was no undue influence by one demographic subgroup over another, with agreement among subgroups constant and uniform. Adoption of the results of this job analysis study establishes the link between job performance and application of critical KSAs and successful examination performance.

The final approved task listing was translated into the examination content outline for the CNL examination, which will serve as the blueprint for development of the multiple-choice examination. This information will be published and made available to educators, candidates, regulators, and the general public, establishing the openness and transparency of the AACN CNL examination program. The next CNL exam developed (expected in 2017) will be based on this new exam blueprint.

## Appendix A: Job Analysis Advisory Committee

**Table A-1**  
*JA SME Participants*

<b>Name</b>	<b>Location</b>	<b>Years of Experience</b>	<b>Meeting Attended</b>
Patricia Baker, MSN, RN-BC, CNL	Houston, TX	6	1
Luis Enrique Barberia, DNP, RN, CNL	Watsonville, CA	18	1 & 2
Melchora Bartley, MSN, RN, CNL, CCRN	Okemos, MI	29	1 & 2
Ann Deerhake, MS, RN, CNL, CCRN	Eloy, AZ	5	1
Karen S. DeLong, MSN, RN, CPN, CNL	Bloomington, IL	29	1 & 2
Tammy Lee, MSN, RN, CNL	Chunchula, AL	24	1
Joletta Phillips, RN, MSN, CNL	Killeen, TX	20	2
Veronica Rankin, MSN, RN-BC, NP-C, CMSRN, CNL	Charlotte, NC	4	1 & 2
Lois Stauffer, MSN, RN, CNL	Edison, OH	27	1 & 2
Miriam Bender, PhD, RN, CNL	Irvine, CA	5	1 & 2
Kristine L'Ecuyer, PhD, RN, CNL	St Louis, MO	29	1 & 2

*Note:* Demographic worksheets and affidavits for the CNL SMEs were not provided in this report due to the confidential and private nature of these materials. This information is on file at Schroeder Measurement Technologies, Inc.

### **SMT Facilitators:**

Meeting 1: Dana Anderson-Pancoe, Assistant Director of Assessment & Psychometric Services

Meeting 2: Rachael Jin Bee Tan, Ph.D., Director of Assessment & Psychometric Services

## Appendix B: CNC CNL JA Survey



**COMMISSION ON  
NURSE  
CERTIFICATION**

**Welcome to the American Association of Colleges of Nursing (AACN)  
Commission on Nurse Certification (CNC) Clinical Nurse Leader (CNL) Job Analysis Survey**

The purpose of this survey is to update the content specifications of the CNC CNL certification examination.  
Respondents must be certified CNLs currently working in the care continuum.

If you know of one or more CNLs who are currently working in the field, please forward the link to this survey so they may have an opportunity to provide their feedback.

Have questions? [Click here for our Frequently Asked Questions page.](#)

 **Schroeder Measurement Technologies**  
Solutions through Innovation



You may revisit your survey record at any time before the **survey closes on July 24, 2016**.

There are three sections in this survey:

**Section 1: Demographic Questions.** Demographic questions help us develop a profile of the CNL and the environment in which you practice.

**Section 2: Job Domains.** This section lists essential elements of knowledge, skills, and abilities required of a competent CNL in his or her work. This list of knowledge elements is organized by job domain and was developed by a diverse group of CNLs. You are asked to indicate whether you perform or supervise the activity and the importance of each activity to public protection and competent practice.

**Section 3: Post-Survey Questionnaire.** In this section, you are asked to assign weights to each of the three job domains. This data will be analyzed to determine the distribution of content for the CNL certification exam. You will also have the opportunity to specify any knowledge elements you feel may have been overlooked in this survey.

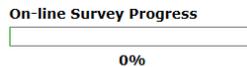
All responses are strictly confidential. Email addresses will not be used for any reason other than those clearly expressed in this survey. Please answer **ALL** items and sections completely. If you have any technical problems associated with taking the survey, please contact Schroeder Measurement Technologies (SMT) at (800) 556-0484 extension 2104 from 8:00 AM to 4:30 PM (EST), Monday - Friday, or by e-mail at [jceleste@smttest.com](mailto:jceleste@smttest.com).

Before starting the survey, you will be assigned an Access Code. You will need this Access Code if you wish to return to the survey in the future. If this is your first time accessing the survey, enter your e-mail address in the box provided for "New Users," then click the "Submit" button. Your access code will then be displayed to you; write it down for future reference in the event that you are interrupted before completing the survey, or if you wish to reenter at any time. Once you record your Access Code, you can use the fields designated for "Returning Users". **Email addresses are used for the sole purpose of allowing a means of access to the survey.**

 <b>New User</b>	Email Address:	<input type="text"/>	<input type="button" value="Submit"/>
 <b>Returning User</b>	Email Address:	<input type="text"/>	<input type="button" value="Submit"/>
	Access Code:	<input type="text"/>	<input type="button" value="Submit"/>

[Forgot your access code?](#)

Have any questions? [Click here for our Frequently Asked Questions page.](#)



**Access Code:**

Your Access Code is listed below. If you do not complete this survey and wish to return, you will be prompted for this Access Code. Please save this code for your future use.

Access Code:	<b>BR55DBXGRP</b>
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[Continue to the survey . . .](#)





**Section 1: Demographic Questions.** Presented below are general demographic questions used to help us understand the role of a CNL. This basic demographic information is standard for the survey procedure. Factors such as age, years of experience, geographic region, and job setting are regularly grouped and analyzed as a part of a rigorous sample validation process.

Please select the most appropriate response for each of the following background questions. These questions are used to establish a profile of the survey respondent group. As a result, some questions will be cross-tabulated and statistically analyzed. **ALL demographic information is held in confidence.** Please select only one option for each question unless otherwise noted.

1. Do you presently hold the CNL certification?

- Yes
- No

2. How many years have you worked in the nursing field?

< select > ▼

3. How many years have you held the CNL credential?

< select > ▼

4. Does your organization have formal CNL role positions?

< select > ▼

5. Regardless of your title, are you practicing in a Certified Clinical Nurse Leader (CNL) role?

< select > ▼

6. If no, how would you describe your current role?

< select > ▼

7. Which of the following best describes your job title?

< select > ▼

8. What is your primary work setting?

< select > ▼

9. In which U.S. state or territory do you primarily work?

< select > ▼

10. In which nursing specialties do you work? (Select all that apply)

- Acute Care
- Adult Health
- Ambulatory Care
- Cardiovascular
- Critical Care
- Diabetes Management
- Emergency
- Gerontology
- Informatics
- Medical-Surgical
- Neuroscience
- Oncology
- Pediatrics
- Perioperative
- Psychiatric & Mental Health
- Public Health
- Neonatology
- Women's Health
- Other (please specify)

11. Does your employer support/recognize CNL certification by providing any of the following incentives?

- None
- Employment as CNL
- One-time bonus
- Reimburses exam fee
- Reimburses recertification fee
- Increase in hourly wage or salary
- Provides continuing education funding
- Other (please specify)

12. Which of the following best represents your wage as a CNL?

< select >

13. What is your age?

< select >

14. What is your gender?

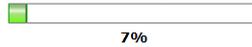
< select >

15. Which of the following best describes your racial/ethnic background?

< select >

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**Section 2: Job Domains.**

This survey includes a list of knowledge, skills, and abilities that may be required of a Clinical Nurse Leader (CNL) for competent practice and public protection. This list of competencies was developed by a diverse group of CNLs who are subject matter experts in the field.

Use the rating scale below to assess each element.

First, please indicate if the competency is NOT performed or applied by the CNL ("Not Performed or Applied").

Next, if the competency is performed or applied, how important is the element to public protection and competent practice of a CNL.

**Rating Scale**

Please select "Not Performed or Applied" if the CNL does NOT perform or apply the competency in their practice. For those competencies performed or applied, provide an importance rating using the scale range from "Not Important" to "Extremely Important" to indicate how important the element is to the practice of a competent CNL. If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

There is space provided at the end of the survey to note any elements that are missing or any errors you may find.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>Domain I: Nursing Leadership</b>					
<b>A. Horizontal Leadership</b>					
1. Apply leadership change and complexity theories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Apply strategies to guide the collaborative team to use clinical judgement to make safe patient care decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Facilitate delegation of patient care coordination activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Appraise and evaluate coordinated care activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Demonstrate accountability for microsystems healthcare outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Practice as a role model for other healthcare providers, including coaching and mentoring the healthcare team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Coordinate evaluation and update plans of care at an advanced level collaboratively with the interprofessional team and the patient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
8. Organize a framework for systematic collaborative team practices to address the complexity of patient care issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
9. Serve as a partner and leader in the interprofessional health team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
10. Manage and lead group processes to meet care objectives and complete healthcare team responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
11. Develop effective working relationships within an interprofessional team to influence microsystem outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
12. Demonstrate higher order critical thinking and problem solving skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

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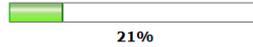


**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE	
0	Not Performed or Applied
1	Not Important
2	Low Importance
3	Moderately Important
4	Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>B. Interprofessional Communication and Collaboration Skills</b>					
1. Analyze patterns of communication and chain of command that impact care within the interprofessional team and across settings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Apply concepts of communication skills including critical listening during assessment, intervention, evaluation, and education of patients, families, and the healthcare team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Employ effective negotiation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Employ appropriate communication techniques and strategies that address social, political, economic, environmental, technological, and historical issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Utilize interprofessional communication, collaboration, and group process concepts to meet care objectives and complete healthcare responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Translate and interpret data for the patients, families, and the healthcare team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Communicate effectively in a variety of written and spoken formats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
8. Construct relationships with interprofessional team including management and administration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
9. Incorporate knowledge of cultural differences to bridge cultural and linguistic barriers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
10. Integrate emotional intelligence in communication and collaboration with patients, families, and the healthcare team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
11. Recognize and utilize the roles and responsibilities of the interprofessional team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important



**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>C. Healthcare Advocacy</b>					
1. Develop a political voice as a member of the nursing profession to influence access to care and provision of quality services to all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Initiate partnerships to identify health disparities, establish health promotion goals, and implement strategies to address those concerns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Interface between the patient and the healthcare delivery system to protect the rights of patients and to effect quality outcomes; knowledge of patient rights and responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Ensure that patients, families, and communities are well informed in creating a patient-centered plan of care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Negotiate and advocate for the nursing profession, the CNL role, and the interprofessional team to healthcare providers, policy makers, and consumers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Identify and propose microsystem resources to meet the needs of target populations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Explain healthcare issues and concerns to key stakeholders including elected and appointed officials, policy organizations, and to healthcare consumers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
8. Translate appropriate healthcare information to advocate for informed healthcare decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
9. Recommend improvements in the institution or health care system and the nursing profession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
10. Advocate for patients, particularly the most vulnerable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

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**Section 2: Job Domains (continued).**

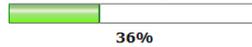
How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>D. Implementation of the CNL Role</b>					
1. Demonstrate professional identity and practice in developing the CNL role	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Explain the capacity of CNL practice to improve healthcare processes and outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Exhibit qualities of a microsystem leader within and across interprofessional teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Appraise and apply current and new CNL evidence, competence, and practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Synthesize CNL practice outcomes for dissemination at system, regional, national, or international level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Collaborate with a network of CNL professionals at the system, regional, national, or international level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<b>E. Lateral Integration of Care Services</b>					
1. Coordinate the healthcare of patients across the care continuum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Integrate an interprofessional approach to discuss strategies to identify and acquire resources for patient populations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Coordinate and perform risk analysis using appropriate evidence-based tools to predict patient risk and safety issues within and across microsystems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Apply care management skills and principles to provide and coordinate patient care within and across specific episodes of illness and throughout the care continuum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Manage, monitor, and influence the microsystem environment to foster health and quality of care across the care continuum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Apply systems and organization theory in the design, delivery, and evaluation of healthcare delivery across the care continuum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

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**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>Domain II: Clinical Outcomes Management</b>					
<b>A. Illness/Disease Management</b>					
1. Coordinate the provision and management of care at the microsystem level and across the care continuum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Evaluate care for patients across the lifespan with particular emphasis on health promotion and risk reduction services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Identify patient problems that require intervention, with special focus on those problems amenable to nursing intervention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Evaluate and determine readiness, needs, and interventions for safe transition of care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Design and modify patient care based on analysis of outcomes, evidence-based knowledge, and patient's goals of care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Analyze microsystems of care and outcome datasets to anticipate patient risk and improve quality of care delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Apply theories of chronic illness care and population health management to patient and families	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
8. Integrate community resources, social networks, and decision support mechanisms into care management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
9. Recognize differences in responses to illness and therapies based on patient's cultural, ethnic, socioeconomic, linguistic, religious, and lifestyle preferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
10. Identify disease patterns and their implications on patient's activation for self-care and on-going care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
11. Use advanced knowledge of pathophysiology, assessment, and pharmacology to anticipate illness progression, response to therapy and to guide, teach, and engage patients and families regarding care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
12. Use knowledge of cost and affordability issues in managing patient illness/disease across the care continuum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
13. Synthesize literature and research findings as the foundation for the design of interventions for illness and disease management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
14. Coordinate and implement education programs for patients and health professionals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
15. Identify and interpret epidemiological patterns in order to manage illness and disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

Previous      Next



**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE	
0	Not Performed or Applied
1	Not Important
2	Low Importance
3	Moderately Important
4	Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>B. Knowledge Management</b>					
1. Collect data that documents the characteristics, conditions, and outcomes for various patient groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Participate in disease surveillance and investigation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Apply knowledge of technology, equipment, treatment regimens, or medication therapies to anticipate risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Compare and evaluate trends of institutional and unit data to national benchmarks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Identify variations in clinical outcomes among various groups to determine where nurses have the greatest impact at the microsystem level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Synthesize data, information, and knowledge to evaluate and achieve optimal patient outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Integrate assessment data into information management systems for decision support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
8. Analyze and disseminate microsystem data that impacts health outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
9. Employ strategies to engage the interprofessional team to impact healthcare outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
10. Distinguish the impact of health literacy of patient engagement and activation for self-care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

Previous

Next



**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>C. Health Promotion and Disease Prevention &amp; Injury Reduction/Prevention Management</b>					
1. Collaborate with interprofessional team members to promote health and/or prevent disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Employ strategies to engage patients in therapeutic partnerships with interprofessional team members for disease management and self-care activation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Identify and/or modify interventions based on evidence to meet specific patient needs for health promotion and disease prevention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Design and implement interventions to modify risk factors and promote engagement in healthy lifestyles for diverse populations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Assess protective, predictive, and genetic factors that influence the health of patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Develop clinical and health promotion programs for patient populations to reduce risk, prevent disease, and prevent disease sequelae, particularly related to chronic illness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Recognize the need for and develop community partnerships to establish risk reduction strategies to address social and public health issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
8. Incorporate cultural definitions of health into health promotion and disease prevention strategies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
9. Incorporate theories and research in creating patient engagement strategies to promote and preserve health and healthy lifestyles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important
<b>D. Healthcare Policy</b>					
1. Apply micro-, meso-, and macrosystems perspectives when analyzing healthcare policy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Recognize the effect of healthcare policy on health promotion, risk reduction, and disease and injury prevention with emphasis on vulnerable populations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Apply strategies to influence regulatory, legislative, and public policy in private and public sectors to promote healthy communities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Recognize the interactive effect of economics on national/global health policy related to health outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Analyze the effect of healthcare policy on standards of care and scope of practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Differentiate between legislative and regulatory processes and how they impact nursing practice and healthcare delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Explore the interaction between regulatory and quality controls within the healthcare delivery system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
8. Evaluate local, state, and national socioeconomic and health policy issues and trends as they relate to the delivery of healthcare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

Previous      Next



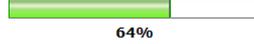
**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>Domain III: Care Environment Management</b>					
<b>A. Team Coordination</b>					
1. Perform, teach, delegate, and manage skilled nursing procedures in the context of safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Demonstrate effectiveness in group interactions, particularly in skills necessary to interact and collaborate with other members of the interprofessional team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Evaluate underlying assumptions and relevant evidence that influence patient and interprofessional team behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Establish and maintain effective working relationships within an interprofessional, multicultural team to make ethical decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Facilitate group processes to meet care objectives to ensure completion of interprofessional team responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Identify areas in which a conflict of interest may arise and propose resolutions or actions to resolve/prevent the conflict	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Promote a positive and healthy work environment and a culture of retention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
8. Incorporate patient/family/interprofessional team input to design, coordinate, and evaluate plans of care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

Previous Next



**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>B. Healthcare Finance and Economics</b>					
1. Propose cost effective strategies and/or interventions to the interprofessional team that improve efficiency and patient care outcomes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Serve as a steward for the environmental, human, and material resources while coordinating patient care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Evaluate the fiscal context in which practice occurs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Identify high cost /high volume activities, to benchmark costs nationally and across care settings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Apply basic business and economic principles and practices, including but not limited to: budgeting, product testing, marketing, and organizational theory to the delivery of healthcare at the microsystem level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Apply ethical principles in regard to healthcare delivery relating to healthcare financing and economics.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Identify the impact of financial policies on healthcare delivery and patient outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
8. Analyze and disseminate cost effective outcomes related to CNL practice to policy makers, healthcare providers, and patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
9. Interpret the impact of both public and private reimbursement policies that may affect patient care decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
10. Evaluate the effect of healthcare financing on access to care and patient outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
11. Examine current healthcare economic concepts including but not limited to: Return on Investment (ROI), Value-Based Purchasing (VBP), bundled payments, and basic marketing strategies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important
<b>C. Healthcare Systems/Organizations</b>					
1. Apply knowledge of teamwork to manage change and disseminate information at the systems level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Critique and/or modify existing policies and procedures based on current evidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Implement system-based strategies that decrease healthcare disparities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Apply theories of systems thinking to address problems and develop solutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Distinguish how health care delivery systems are organized and their effect on patient care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Identify the economic, legal, and political factors that influence health care delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

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**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>D. Evidence-Based Practice</b>					
1. Create framework within the microsystem to integrate patient and family preferences, interprofessional clinical expertise, and best evidence into clinical decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Develop foundations for assessment and clinical decisions by applying evidence-based practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Synthesize quantitative or qualitative evidence for critical thinking and decision making to achieve optimal patient outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Select relevant sources of evidence to meet specific needs of patients, microsystems, or communities when planning care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Use current evidence to improve patient care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Identify relevant outcomes and measurement strategies that will improve patient outcomes and promote cost effective care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important
<b>E. Quality Improvement and Safety</b>					
1. Employ quality improvement methods in evaluating individual and aggregate patient care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Evaluate healthcare outcomes through the acquisition of data and the questioning of inconsistencies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Develop and implement the redesign of patient care utilizing assessment methodologies including but not limited to: gap analysis, Failure Modes Effect Analysis (FMEA), Root Cause Analysis (RCA), Plan-Do-Study-Act (PDSA) Cycles, and microsystem assessment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Gather, analyze and synthesize data related to risk anticipation to reduce risk and maintain patient safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Employ strategies to guide the interprofessional team in quality improvement activities within the microsystem to impact the meso- and macrosystems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

Previous Next



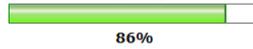
**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>F. Healthcare Informatics</b>					
1. Assess, critique, and analyze information sources	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Design care utilizing informatics and patient care technology	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Apply multiple sources of systems data in designing processes for care delivery	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Evaluate clinical information systems in order to provide feedback related to efficient and accurate documentation.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Apply ethical principles in the use of information systems	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Evaluate the impact of new technologies on patients, families and healthcare delivery	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Identify and assess the relationships between information systems, accurate communication, error reduction, and healthcare system operation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Analyze and disseminate healthcare information among the interprofessional team and across the care continuum	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Validate accuracy of consumer-provided information regarding culturally relevant health issues from multiple sources	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Utilize technology for health promotion and disease prevention	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Collaborate with quality improvement and information technology teams to design and implement processes for improving patient outcomes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Utilize current technology to anticipate patient risk	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Demonstrate to other healthcare providers the efficient and appropriate use of healthcare technologies to maximize healthcare outcomes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Access, critique, and analyze information from multiple sources	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

Previous Next



**Section 2: Job Domains (continued).**

How important is this knowledge to the practice of a competent CNL? Please select "Not Performed or Applied" if you do NOT perform or apply the competency in your role as a CNL. For those activities you perform or supervise, provide an importance rating using the scale range from "Not Important" to "Extremely Important." If you are unable to see the header row for the rating scale, hovering over the button in the cell will display the rating that is associated with that button.

IMPORTANCE
0 Not Performed or Applied
1 Not Important
2 Low Importance
3 Moderately Important
4 Extremely Important

	0 Not Performed or Applied	1 Not Important	2 Low Importance	3 Moderately Important	4 Extremely Important
<b>G. Patient Assessment</b>					
1. Perform an advanced comprehensive assessment of the patient across the lifespan (e.g.: health history, culture, socioeconomic status, spirituality, health literacy)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Perform an advanced assessment of microsystems across the care continuum to determine patient population care needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<b>H. Ethics</b>					
1. Apply patient-centered ethical decision-making framework to clinical situations that incorporates moral concepts, professional ethics, and law	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. Apply legal and ethical guidelines to advocate for patient well-being and preferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Identify and analyze common ethical dilemmas including the impact on patient care and outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Evaluate ethical decision making from both a personal and organizational perspective and analyze how these two perspectives may create conflicts of interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Collaborate with the ethics committee and recognize their role in health care delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	Not Performed or Applied	Not Important	Low Importance	Moderately Important	Extremely Important

Previous      Next



**Section 3: Post Survey Questionnaire.** In this section, you are asked to assign a percentage to each domain according to its importance to the job of a Clinical Nurse Leader (CNL). These percentages represent the weights each domain would receive on the CNC CNL certification examination. In addition, you also have the opportunity to specify any knowledge elements you feel may have been overlooked in this survey.

Considering the relative importance of the three major domains of the CNLs job, what percentage of examination questions would you assign to each domain? **Please note that you are required to provide percentage values that sum to 100 BEFORE moving to another page of the survey.**

**1. Nursing Leadership** (A. Horizontal Leadership, B. Interprofessional Communication and Collaboration Skills, C. Healthcare Advocacy , D. Implementation of the CNL Role, E. Lateral Integration of Care Services )

**2. Clinical Outcomes Management** (A. Illness/Disease Management, B. Knowledge Management, C. Health Promotion and Disease Prevention & Injury Reduction/Prevention Management, D. Evidence-Based Practice)

**3. Care Environment Management** (A. Team Coordination , B. Healthcare Finance and Economics, C. Healthcare Systems/Organizations, D. Healthcare Policy, E. Quality Improvement and Safety , F. Healthcare Informatics, G. Patient Assessment, H. Ethics)

Total: Must sum to 100%

How well did this survey cover the cognitive knowledge necessary to practice as a CNL? **(RESPONSE REQUIRED)**

< select >

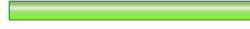
In the space provided below, please specify any knowledge elements that are important for a CNL to perform that you feel were not covered in this survey. Your response is limited to 1000 characters.

**Thank you for your time and participation!**

As a thank you for completing this survey, we will be holding a drawing for a free conference registration to attend the 2017 CNL Summit and Research Symposium, which will be held February 22-24 in Atlanta, GA. The winner will also receive a CNL totebag and keychain. **Your name and contact e-mail will remain separate from your survey responses.**

Please enter your first and last name:

Contact email address:



The American Association of Colleges of Nursing (AACN) and The Commission on Nurse Certification (CNC) thank you for completing the survey.

*Your participation in this survey has been essential for determining a complete and accurate list of knowledge elements required of a Clinical Nurse Leader (CNL).*

(You will be redirected to the AACN CNC CNL Certification website in 15 seconds).



## Appendix C: Missing KSAs

**Table C-1**  
*Missing KSAs*

Respondent Suggestions
Practice focus is only subset of all areas Teach options, not expert in everything
I am in the process of doing a PI project It is easy to come up with an idea It is time consuming doing it as a group However, you need people on board for it to work though I would like to win the opportunity to go to the conference in Atlanta next year to network suggestions
My "not at all" responses are because I felt the item was either :too vague, repetitive, or part of general RN scope of practice and not specific to the CNL (ie of course we are doing it, but not because we are CNLs, but because we are RNs) The other items I feel capture CNL practice very well comprehensively
identify patterns of nursing staff strengths, deficits, turnover and retention
CNLs often provide staff education, either formally or at the bedside via mentor ship This is a key role of the CNL that is often overlooked in CNL educational programs & as an essential competency ; Another key component of the CNL is providing guidance & mentorship for nursing staff in their professional development Instead of just "solving" care issues, I facilitate & empower the staff in identifying the issue, measuring the scope of the problem, appraising the evidence, developing interve
Knowledge about different personality types-- there are several models available like the True Colors and What is the color of your brain
Where is the question that states I have to watch what I ask about when I am advocating for a paralyzed veteran because when I do ask what needs to be asked, I become at risk to lose MY OWN LIFE? Because my role is under attack by a verbally abusive physician which results in me having a Takatsubo Heart Attack at work?
I felt that some was above the competent expectation of a prudent new CNL and delved into a more expert CNL Which can take years to become and also fully comprehend And sometimes not all reach this level Not all do Overall i believe it covers what a cnl would or may become involved in during their overall career For a new CNL just knowing what each domain is and has knowledge and knows where to locate answers and resources it quite in itself an undertaking I would have like to ha
I dont recall seeing any statements related to advanced knowledge of pharmacology
strong clinical skills and confidence on the floor

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## Respondent Suggestions

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I have found that the CNL role is not well understood or received in acute and community care  
There are few positions available at my workplace, they go unfilled, and are treated dismissively  
Most of the positions have been converted into assistant nurse manager positions with the primary goal of that job to be 50% admin, and 50% staff nurse I have found a limited number of RNs and APRNs that know what a CNL is That being said, it is difficult to specify what additional elements are needed

Overcoming barriers to CNL role; dealing with problem behavior; accreditation and JC readiness; etc

Issues of prevention, integration of Healthy People principles and directives

I think nursing experience is an important pre-requisite to the CNL role

How to implement the role without preceptorship/mentorship More information is needed to implement the role in systems that want, yet dont understand, the role

I have only ever worked as a staff nurse, so I honestly would not know

Strategies for CNL acceptance by hospital/human resources organizations

Freedom to perform independently and dependent of micromanagement; I currently function as 80% operating room educator 20% CNL in defining the and promoting the CNL role for the operating room

Culture, Diversity, Bias, Hobelets Human Development Theory

Preparing the environment for the introduction of the CNL role

We can do a better job publishing our work and showcasing the value of the CNL role

project management, research, grant writing

Care transitions, early detection of clinical change, inter-professional communication, modeling and mentoring best practice Care coordination was only touched on briefly, and I did not see anything on lateral integration I would also request that you create a demographic category for educators with CNL practice experience

CNLs are still pioneers in many places - they MUST be prepared to promote their role as being a vital part of the healthcare team - both to leadership and to microsystem peers Many nurses lack skills to sell their role

Most of the CNLs that apply to our facility have very little clinical experience It is a shame that they have a Masters Degree and are only able to function as a new graduate That means that they must work for at least 2 yrs to dvlp the background to make the higher level decisions that a CNL needs to make Our leaders dont understand that higher level of functioning because they see new grads in the role I moved to the Pt Safety/Quality Mgmt role because CNLs were being used as staff nur

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## Respondent Suggestions

Knowledge of of a patient population, meaning direct care experience with the patient population to support delegation and leadership within the team Emphasis on patient safety, patient education and analyzing care to reduce readmission risk Examples, ensure a post operative patient has a good bowel regiment to prevent readmission for constipation or provide education on home wound care to prevent readmission for wound infection Ensure staff are properly educated to care for a particular pat

It would be valuable to include elements of designing a job description for a facility that does not use nurses in the CNL role The CNL role is so valuable and varied, it can fit into any place nurses work to improve the quality and efficiency of patient care

Some of CNLs are in education and not at the clinical sites Some of the questions did relate to the education arena Otherwise, It was fine

Promoting professional development of staff nurses within the CNLs microsystem

How to prepare and "shine" for an interview when there are no or very few CNL Positions How to implement the CNL role in their healthcare system

Elements were adequately represented

The relationship and trust building of teams at the unit level is a part of the leadership that creates successful outcomes for both care teams and patient outcomes

Continuity of care, evidence based research, whole health approach

Serving as a mentor and preceptor, especially to other CNL students, new graduate/novice nurses is important role for the CNL and improves recruitment and retention Also quite often I worked as an adjunct to nurse educator I often found my self assisting with training and continuing education amongst staff nurses, including constant support at the micro-systems level and at the bedside I was often the resource person

I believe the CNL is the synthesizer We integrate all our skills in whatever role is our focus at that time I find myself always thinking how the Microsystems are connected and assessing areas of improvement But when expressing the needs and concerns our skills of diplomacy and leadership and communication are necessary to overcome barriers to solutions

Political Caucus Involvement

Survey was very comprehensive Very difficult to scale, as all are important aspects of a CNL role The "expert" CNL or nursing leader would embody all of these characteristics, but anyone still learning in his/her role would likely be developing -- rather than having mastered -- most of these skills

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## Respondent Suggestions

The survey covers the roles of the CNL if they practice in a clinical, or healthcare setting and does not allow for how the competencies adapt to other areas of practice In my role as Professor, and Director of a Nursing Department I utilize all of the CNL competencies which have broadened my viewpoint within every position I have acquired since graduation Most of these questions apply to my clinical roles however, if worded differently without the verbiage "healthcare" and "healthcare systems",

Research dissemination and research expertise, health care policy

I believe research is a large portion of my role Some of the domains items touch on this but dont directly state conducting research

I work a lot with transitions of care from inpatient to ambulatory collaboratively to impact the improving readmission rates This is a huge area of health care change that CNLs can greatly impact Educational theory how to teach patients, staff and write good material

This was a very comprehensive survey The only thing Ive experienced in my CQNL position is being supported by the unit Manager Instead of working as a leadership team in the NICU with the educator, she wants to have "control"

Mentoring, life long learner

This survey could be greatly improved Please consult a professional survey company or have someone do research on improving response rates The data will be invalid because the survey is hard to access and extremely long I said I was not working as a CNL and then answered 15 hours of questions about my CNL role Simplifying the CNL role and this survey will improve the use of the role It was comically complicated I would volunteer my time to consult but you should find an expert or offer co

I work with a CNL certification, but not in a capacity as a CNL Most of my responses reflect that I dont use this skill much in everyday care

Delegation and policy implementation could have been stressed more

conflict and barriers

More detailed assessment on clinical outcomes management and translation of research finding into practice guidelines (EBP)

One element that was not covered was if the CNL role was supported by the CNLs direct manager or supervisor I left my role as a CNL because of the lack of support and lack of ability of performing the CNL role to its fullest extent This began after I started working on my doctorate This is a common issue within the Veterans Health Administration Another important factor to include is the impact of the CNL with regards to preventing failure to rescue My failure to rescue rates went down

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### **Respondent Suggestions**

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I did not remember a question referring to the CNL involvement in nurse led research and publications I do not remember a question regarding the support of CNLs during their microsystem projects in their graduate programs We also have to look at us forming local area groups/organizations which will highlight our work in a local geographical location to support our specialty area We can then approach our organizations on behalf of our clinical relevance and importance in todays healthcare environment

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## Appendix D: Other Job Role

**Table D-1**  
*Other Job Role*

<b>Other Role</b>	<b>Frequency</b>
Case Manager	2
Certified Wound Ostomy Nurse	1
Clinic Nurse Supervisor	1
Clinical informatics specialist	2
Clinical Nurse Coordinator	1
clinical resource nurse	1
Infection Prevention/Quality Management	1
Mental Health Intensive Case Manager	1
professional development specialist-- create design education for ambulatory nursing staff	1
Public Health Nurse	1
School nurse	1
Split between staffing and CNL CNL when staffing permits	1
Titled CNL do quality education mgmt risk duties for 48 beds	1
<b>Total</b>	<b>15</b>

## Appendix E: Other Job Title

**Table E-1**  
*Other Job Title*

Other Title	Frequency
Advanced Nursing Coordinator	1
Allied Health Program Director	1
Case Manager	1
Clinical Educator, Quality improvement, CNL	1
Clinical Informatics Education Coordinator	1
Clinical informatics specialist	1
Clinical Project Manager	1
Clinician	2
Clinician/Case Manager	1
CVOR Supervisor	1
Infection Preventionist / Infection Control Practitioner	1
Interim Dean	1
magnet Program Director	1
Middle management. In between charge nurse and manager	1
Nursing Program Manager	1
Patient Care Facilitator	1
Patient Safety Manager	1
Patient Safety Nurse	1
Patient Safety Specialist	1
Postdoctoral Research Fellow	1
Quality and Regulatory Affairs Specialist	1
registered nurse	1
resource nurse	1
Restorative Nurse half time and CNL the other half	1
Retention Officer for Nursing Practice	1
Retired	1
RN- Risk and Quality	1

<b>Other Title</b>	<b>Frequency</b>
Senior Clinical Nurse - both bedside nurse responsibilities and administrative work	1
Specialty Role	1
VP Clinical Quality & Transformation/CNO	1
<b>Total</b>	<b>31</b>

## Appendix F: Other Work Setting

**Table F-1**  
*Other Work Setting*

<b>Other Setting</b>	<b>Frequency</b>
11 hospital system	1
Acute Rehabilitation TBI Polytrauma	1
Administration Risk Management	1
Ambulatory Care	1
Appointment and Avice Call Center	1
Blood center	1
Community College center for workforce development	1
Convener	1
Division of Research	1
Emergency Department	1
Healthcare system	1
Hospital Based Care coordinator	1
Hospital and outpatient	1
Hospital Surgery	1
Operating Room	2
organizational learning	1
Outpatient hospital based department	1
System wide scope, which includes Inpt, Outpt, clinics, OR, procedural areas, long term care	1
TeleICU	1
University Health Correctional Care Setting	1
<b>Total</b>	<b>21</b>

## Appendix G: Geographic Region of Practice

**Table G-1**  
*U.S. State of Practice*

U.S. State	Frequency	Percent
Alabama	12	4.2%
Alaska	0	0.0%
Arizona	1	0.4%
Arkansas	1	0.4%
California	33	11.7%
Colorado	3	1.1%
Connecticut	7	2.5%
Delaware	0	0.0%
District of Columbia	1	0.4%
Florida	21	7.4%
Georgia	10	3.5%
Hawaii	0	0.0%
Idaho	1	0.4%
Illinois	11	3.9%
Indiana	0	0.0%
Iowa	1	0.4%
Kansas	2	0.7%
Kentucky	0	0.0%
Louisiana	0	0.0%
Maine	3	1.1%
Maryland	6	2.1%
Massachusetts	5	1.8%
Michigan	11	3.9%
Minnesota	2	0.7%
Mississippi	1	0.4%
Missouri	9	3.2%
Montana	1	0.4%
Nebraska	0	0.0%

<b>U.S. State</b>	<b>Frequency</b>	<b>Percent</b>
Nevada	0	0.0%
North Carolina	13	4.6%
North Dakota	1	0.4%
New Hampshire	2	0.7%
New Jersey	10	3.5%
New Mexico	1	0.4%
New York	10	3.5%
Ohio	21	7.4%
Oklahoma	3	1.1%
Oregon	4	1.4%
Pennsylvania	4	1.4%
Rhode Island	0	0.0%
South Carolina	2	0.7%
South Dakota	1	0.4%
Tennessee	3	1.1%
Texas	38	13.4%
Utah	1	0.4%
Vermont	1	0.4%
Virginia	4	1.4%
Washington	6	2.1%
Wisconsin	15	5.3%
West Virginia	1	0.4%
Wyoming	0	0.0%
<b>Subtotal</b>	<b>283</b>	<b>100.0%</b>

## Appendix H: Other Specialty Area

**Table H-1**  
*Other Specialty Area*

Other Nursing Specialties	Frequency
Academia	2
Acute Rehabilitation	1
Administration	1
Administration Risk Management	1
Administration/Finance	1
Anesthesia	1
Any Pt Safety events that occur throughtout my hospital system are my responsibility to follow up. I am working as a Pt. Safety Mgr, under Quality Mgmt.	1
Blood center Quality	1
Case Management	1
Community Health	1
community living center	1
Correctional health	1
Education	3
Education, Nursing Simulations	1
Family practice, urgent care, specialty ambulatory care	1
Graduate Education	1
Hematology/Bone Marrow Transplantation	1
Home Care and Hospice	1
Home Infusion	1
Hospital education	1
Medical Cardiology/ Oncology	1
Medical Management -- Utilization Review	1
Nursing education	1
Nursing Practice Department ( Support Services)	1
Orthopedics	3
pediatric oncology	1

<b>Other Nursing Specialties</b>	<b>Frequency</b>
Perianesthesia	1
Perioperative	1
Primary Care	1
Quality and patient safety	1
Regional education	1
Rehabilitation	1
Responsible for standardization of large 8 hospital projects affecting all specialties	1
summer camp nursing/amusement park nursing and also the special needs population	1
TB, STD, and Immunizations.	1
teach pediatric content	1
telehealth	2
Transitional Care Services	1
Transplant	1
Trauma Services	1
University	1
Veterans Health	1
WOCN	1
<b>Total</b>	<b>49</b>

## Appendix I: Other Incentives for CNL Certification

**Table I-1**  
*Other Incentives*

<b>Incentives</b>	<b>Frequency</b>
annual bonus	3
bonus initial and recertification	1
cohort with a university (campus branch) not sure but UWF	1
Funding/tuition reimbursement for MSN in CNL program	1
I was promoted from Informatics Nurse to Director of Quality	1
ladder	1
NNEI	1
Paid for my education	1
they are still reviewing my certification to see if it qualifies for recognition (pay bonus)	1
Tuition assistance	1
When working as a CNL, you are able to apply for a raise from Nurse 2 to Nurse 3, and subsequent steps within that designation.	1
<b>Total</b>	<b>13</b>

## Appendix J: KSAs in Survey Order

**Table J-1**  
*KSAs in Survey Order*

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
1	IA1	Nursing Leadership	Horizontal Leadership	Apply leadership change and complexity theories	6.6%	3.44
2	IA2	Nursing Leadership	Horizontal Leadership	Apply strategies to guide the collaborative team to use clinical judgement to make safe patient care decisions	4.5%	3.77
3	IA3	Nursing Leadership	Horizontal Leadership	Facilitate delegation of patient care coordination activities	8.0%	3.42
4	IA4	Nursing Leadership	Horizontal Leadership	Appraise and evaluate coordinated care activities	7.0%	3.45
5	IA5	Nursing Leadership	Horizontal Leadership	Demonstrate accountability for microsystems healthcare outcomes	5.6%	3.58
6	IA6	Nursing Leadership	Horizontal Leadership	Practice as a role model for other healthcare providers, including coaching and mentoring the healthcare team	2.4%	3.66
7	IA7	Nursing Leadership	Horizontal Leadership	Coordinate evaluation and update plans of care at an advanced level collaboratively with the interprofessional team and the patient	6.9%	3.53

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
8	IA8	Nursing Leadership	Horizontal Leadership	Organize a framework for systematic collaborative team practices to address the complexity of patient care issues	7.6%	3.50
9	IA9	Nursing Leadership	Horizontal Leadership	Serve as a partner and leader in the interprofessional health team	3.1%	3.72
10	IA10	Nursing Leadership	Horizontal Leadership	Manage and lead group processes to meet care objectives and complete healthcare team responsibilities	6.9%	3.56
11	IA11	Nursing Leadership	Horizontal Leadership	Develop effective working relationships within an interprofessional team to influence microsystem outcomes	2.8%	3.72
12	IA12	Nursing Leadership	Horizontal Leadership	Demonstrate higher order critical thinking and problem solving skills	1.4%	3.82
13	IB1	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Analyze patterns of communication and chain of command that impact care within the interprofessional team and across settings	4.2%	3.45
14	IB2	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Apply concepts of communication skills including critical listening during assessment, intervention, evaluation, and education of patients, families, and the healthcare team	4.6%	3.72
15	IB3	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Employ effective negotiation skills	4.8%	3.42

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
16	IB4	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Employ appropriate communication techniques and strategies that address social, political, economic, environmental, technological, and historical issues	5.5%	3.40
17	IB5	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Utilize interprofessional communication, collaboration, and group process concepts to meet care objectives and complete healthcare responsibilities	4.2%	3.72
18	IB6	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Translate and interpret data for the patients, families, and the healthcare team	4.2%	3.57
19	IB7	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Communicate effectively in a variety of written and spoken formats	2.1%	3.76
20	IB8	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Construct relationships with interprofessional team including management and administration	1.7%	3.70
21	IB9	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Incorporate knowledge of cultural differences to bridge cultural and linguistic barriers	3.5%	3.43
22	IB10	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Integrate emotional intelligence in communication and collaboration with patients, families, and the healthcare team	2.1%	3.65

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
23	IB11	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Recognize and utilize the roles and responsibilities of the interprofessional team	2.1%	3.70
24	IC1	Nursing Leadership	Healthcare Advocacy	Develop a political voice as a member of the nursing profession to influence access to care and provision of quality services to all	15.6%	3.03
25	IC2	Nursing Leadership	Healthcare Advocacy	Initiate partnerships to identify health disparities, establish health promotion goals, and implement strategies to address those concerns	10.1%	3.23
26	IC3	Nursing Leadership	Healthcare Advocacy	Interface between the patient and the healthcare delivery system to protect the rights of patients and to effect quality outcomes; knowledge of patient rights and responsibilities	6.3%	3.52
27	IC4	Nursing Leadership	Healthcare Advocacy	Ensure that patients, families, and communities are well informed in creating a patient-centered plan of care	5.2%	3.62
28	IC5	Nursing Leadership	Healthcare Advocacy	Negotiate and advocate for the nursing profession, the CNL role, and the interprofessional team to healthcare providers, policy makers, and consumers	8.7%	3.41

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
29	IC6	Nursing Leadership	Healthcare Advocacy	Identify and propose microsystem resources to meet the needs of target populations	6.9%	3.50
30	IC7	Nursing Leadership	Healthcare Advocacy	Explain healthcare issues and concerns to key stakeholders including elected and appointed officials, policy organizations, and to healthcare consumers	16.4%	3.20
31	IC8	Nursing Leadership	Healthcare Advocacy	Translate appropriate healthcare information to advocate for informed healthcare decision making	6.3%	3.48
32	IC9	Nursing Leadership	Healthcare Advocacy	Recommend improvements in the institution or health care system and the nursing profession	3.9%	3.56
33	IC10	Nursing Leadership	Healthcare Advocacy	Advocate for patients, particularly the most vulnerable	2.8%	3.78
34	ID1	Nursing Leadership	Implementation of the CNL Role	Demonstrate professional identity and practice in developing the CNL role	11.1%	3.56
35	ID2	Nursing Leadership	Implementation of the CNL Role	Explain the capacity of CNL practice to improve healthcare processes and outcomes	9.0%	3.63
36	ID3	Nursing Leadership	Implementation of the CNL Role	Exhibit qualities of a microsystem leader within and across interprofessional teams	6.9%	3.69

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
37	ID4	Nursing Leadership	Implementation of the CNL Role	Appraise and apply current and new CNL evidence, competence, and practice	11.2%	3.62
38	ID5	Nursing Leadership	Implementation of the CNL Role	Synthesize CNL practice outcomes for dissemination at system, regional, national, or international level	15.4%	3.42
39	ID6	Nursing Leadership	Implementation of the CNL Role	Collaborate with a network of CNL professionals at the system, regional, national, or international level	16.5%	3.45
40	IE1	Nursing Leadership	Lateral Integration of Care Services	Coordinate the healthcare of patients across the care continuum	8.4%	3.63
41	IE2	Nursing Leadership	Lateral Integration of Care Services	Integrate an interprofessional approach to discuss strategies to identify and acquire resources for patient populations	6.3%	3.60
42	IE3	Nursing Leadership	Lateral Integration of Care Services	Coordinate and perform risk analysis using appropriate evidence-based tools to predict patient risk and safety issues within and across microsystems	7.3%	3.46
43	IE4	Nursing Leadership	Lateral Integration of Care Services	Apply care management skills and principles to provide and coordinate patient care within and across specific episodes of illness and throughout the care continuum	9.4%	3.57

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
44	IE5	Nursing Leadership	Lateral Integration of Care Services	Manage, monitor, and influence the microsystem environment to foster health and quality of care across the care continuum	7.8%	3.60
45	IE6	Nursing Leadership	Lateral Integration of Care Services	Apply systems and organization theory in the design, delivery, and evaluation of healthcare delivery across the care continuum	9.4%	3.46
46	IIA1	Clinical Outcomes Management	Illness/Disease Management	Coordinate the provision and management of care at the microsystem level and across the care continuum	9.3%	3.61
47	IIA2	Clinical Outcomes Management	Illness/Disease Management	Evaluate care for patients across the lifespan with particular emphasis on health promotion and risk reduction services	11.1%	3.46
48	IIA3	Clinical Outcomes Management	Illness/Disease Management	Identify patient problems that require intervention, with special focus on those problems amenable to nursing intervention	5.5%	3.72
49	IIA4	Clinical Outcomes Management	Illness/Disease Management	Evaluate and determine readiness, needs, and interventions for safe transition of care	8.0%	3.63

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
50	IIA5	Clinical Outcomes Management	Illness/Disease Management	Design and modify patient care based on analysis of outcomes, evidence-based knowledge, and patient's goals of care	7.7%	3.68
51	IIA6	Clinical Outcomes Management	Illness/Disease Management	Analyze microsystems of care and outcome datasets to anticipate patient risk and improve quality of care delivery	8.0%	3.55
52	IIA7	Clinical Outcomes Management	Illness/Disease Management	Apply theories of chronic illness care and population health management to patient and families	11.2%	3.40
53	IIA8	Clinical Outcomes Management	Illness/Disease Management	Integrate community resources, social networks, and decision support mechanisms into care management	11.8%	3.44
54	IIA9	Clinical Outcomes Management	Illness/Disease Management	Recognize differences in responses to illness and therapies based on patient's cultural, ethnic, socioeconomic, linguistic, religious, and lifestyle preferences	9.8%	3.50
55	IIA10	Clinical Outcomes Management	Illness/Disease Management	Identify disease patterns and their implications on patient's activation for self-care and on-going care	8.7%	3.53

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
56	IIA11	Clinical Outcomes Management	Illness/Disease Management	Use advanced knowledge of pathophysiology, assessment, and pharmacology to anticipate illness progression, response to therapy and to guide, teach, and engage patients and families regarding care	8.7%	3.63
57	IIA12	Clinical Outcomes Management	Illness/Disease Management	Use knowledge of cost and affordability issues in managing patient illness/disease across the care continuum	8.3%	3.43
58	IIA13	Clinical Outcomes Management	Illness/Disease Management	Synthesize literature and research findings as the foundation for the design of interventions for illness and disease management	7.0%	3.52
59	IIA14	Clinical Outcomes Management	Illness/Disease Management	Coordinate and implement education programs for patients and health professionals	8.7%	3.52
60	IIA15	Clinical Outcomes Management	Illness/Disease Management	Identify and interpret epidemiological patterns in order to manage illness and disease	17.0%	3.21
61	IIB1	Clinical Outcomes Management	Knowledge Management	Collect data that documents the characteristics, conditions, and outcomes for various patient groups	10.4%	3.50

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
62	IIB2	Clinical Outcomes Management	Knowledge Management	Participate in disease surveillance and investigation	16.3%	3.15
63	IIB3	Clinical Outcomes Management	Knowledge Management	Apply knowledge of technology, equipment, treatment regimens, or medication therapies to anticipate risk	8.0%	3.47
64	IIB4	Clinical Outcomes Management	Knowledge Management	Compare and evaluate trends of institutional and unit data to national benchmarks	7.0%	3.58
65	IIB5	Clinical Outcomes Management	Knowledge Management	Identify variations in clinical outcomes among various groups to determine where nurses have the greatest impact at the microsystem level	10.8%	3.48
66	IIB6	Clinical Outcomes Management	Knowledge Management	Synthesize data, information, and knowledge to evaluate and achieve optimal patient outcomes	7.4%	3.64
67	IIB7	Clinical Outcomes Management	Knowledge Management	Integrate assessment data into information management systems for decision support	9.0%	3.49
68	IIB8	Clinical Outcomes Management	Knowledge Management	Analyze and disseminate microsystem data that impacts health outcomes	8.8%	3.58

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
69	IIB9	Clinical Outcomes Management	Knowledge Management	Employ strategies to engage the interprofessional team to impact healthcare outcomes	6.0%	3.65
70	IIB10	Clinical Outcomes Management	Knowledge Management	Distinguish the impact of health literacy of patient engagement and activation for self-care	10.2%	3.40
71	IIC1	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Collaborate with interprofessional team members to promote health and/or prevent disease	6.9%	3.65
72	IIC2	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Employ strategies to engage patients in therapeutic partnerships with interprofessional team members for disease management and self-care activation	12.8%	3.61
73	IIC3	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Identify and/or modify interventions based on evidence to meet specific patient needs for health promotion and disease prevention	10.8%	3.56
74	IIC4	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Design and implement interventions to modify risk factors and promote engagement in healthy lifestyles for diverse populations	14.6%	3.46

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
75	IIC5	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Assess protective, predictive, and genetic factors that influence the health of patients	19.3%	3.21
76	IIC6	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Develop clinical and health promotion programs for patient populations to reduce risk, prevent disease, and prevent disease sequelae, particularly related to chronic illness	19.6%	3.40
77	IIC7	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Recognize the need for and develop community partnerships to establish risk reduction strategies to address social and public health issues	18.9%	3.32
78	IIC8	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Incorporate cultural definitions of health into health promotion and disease prevention strategies	15.1%	3.36
79	IIC9	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Incorporate theories and research in creating patient engagement strategies to promote and preserve health and healthy lifestyles	14.8%	3.36

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
80	IID1	Clinical Outcomes Management	Healthcare Policy	Apply micro-, meso-, and macrosystems perspectives when analyzing healthcare policy	15.3%	3.35
81	IID2	Clinical Outcomes Management	Healthcare Policy	Recognize the effect of healthcare policy on health promotion, risk reduction, and disease and injury prevention with emphasis on vulnerable populations	12.6%	3.41
82	IID3	Clinical Outcomes Management	Healthcare Policy	Apply strategies to influence regulatory, legislative, and public policy in private and public sectors to promote healthy communities	23.9%	3.17
83	IID4	Clinical Outcomes Management	Healthcare Policy	Recognize the interactive effect of economics on national/global health policy related to health outcomes	15.4%	3.23
84	IID5	Clinical Outcomes Management	Healthcare Policy	Analyze the effect of healthcare policy on standards of care and scope of practice	11.8%	3.34
85	IID6	Clinical Outcomes Management	Healthcare Policy	Differentiate between legislative and regulatory processes and how they impact nursing practice and healthcare delivery	16.2%	3.20
86	IID7	Clinical Outcomes Management	Healthcare Policy	Explore the interaction between regulatory and quality controls within the healthcare delivery system	14.7%	3.36

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
87	IID8	Clinical Outcomes Management	Healthcare Policy	Evaluate local, state, and national socioeconomic and health policy issues and trends as they relate to the delivery of healthcare	18.7%	3.18
88	IIIA1	Care Environment Management	Team Coordination	Perform, teach, delegate, and manage skilled nursing procedures in the context of safety	7.0%	3.70
89	IIIA2	Care Environment Management	Team Coordination	Demonstrate effectiveness in group interactions, particularly in skills necessary to interact and collaborate with other members of the interprofessional team	3.2%	3.75
90	IIIA3	Care Environment Management	Team Coordination	Evaluate underlying assumptions and relevant evidence that influence patient and interprofessional team behavior	5.3%	3.51
91	IIIA4	Care Environment Management	Team Coordination	Establish and maintain effective working relationships within an interprofessional, multicultural team to make ethical decisions	2.8%	3.76
92	IIIA5	Care Environment Management	Team Coordination	Facilitate group processes to meet care objectives to ensure completion of interprofessional team responsibilities	4.2%	3.66

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
93	IIIA6	Care Environment Management	Team Coordination	Identify areas in which a conflict of interest may arise and propose resolutions or actions to resolve/prevent the conflict	5.0%	3.56
94	IIIA7	Care Environment Management	Team Coordination	Promote a positive and healthy work environment and a culture of retention	2.5%	3.78
95	IIIA8	Care Environment Management	Team Coordination	Incorporate patient/family/interprofessional team input to design, coordinate, and evaluate plans of care	4.9%	3.72
96	IIIB1	Care Environment Management	Healthcare Finance and Economics	Propose cost effective strategies and/or interventions to the interprofessional team that improve efficiency and patient care outcomes.	8.7%	3.55
97	IIIB2	Care Environment Management	Healthcare Finance and Economics	Serve as a steward for the environmental, human, and material resources while coordinating patient care	6.9%	3.50
98	IIIB3	Care Environment Management	Healthcare Finance and Economics	Evaluate the fiscal context in which practice occurs	14.4%	3.24
99	IIIB4	Care Environment Management	Healthcare Finance and Economics	Identify high cost /high volume activities, to benchmark costs nationally and across care settings	17.7%	3.36

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
100	IIIB5	Care Environment Management	Healthcare Finance and Economics	Apply basic business and economic principles and practices, including but not limited to: budgeting, product testing, marketing, and organizational theory to the delivery of healthcare at the microsystem level	20.6%	3.22
101	IIIB6	Care Environment Management	Healthcare Finance and Economics	Apply ethical principles in regard to healthcare delivery relating to healthcare financing and economics.	12.6%	3.52
102	IIIB7	Care Environment Management	Healthcare Finance and Economics	Identify the impact of financial policies on healthcare delivery and patient outcomes	16.6%	3.42
103	IIIB8	Care Environment Management	Healthcare Finance and Economics	Analyze and disseminate cost effective outcomes related to CNL practice to policy makers, healthcare providers, and patients	21.3%	3.42
104	IIIB9	Care Environment Management	Healthcare Finance and Economics	Interpret the impact of both public and private reimbursement policies that may affect patient care decisions	19.6%	3.31
105	IIIB10	Care Environment Management	Healthcare Finance and Economics	Evaluate the effect of healthcare financing on access to care and patient outcomes	19.0%	3.33

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
106	IIIB11	Care Environment Management	Healthcare Finance and Economics	Examine current healthcare economic concepts including but not limited to: Return on Investment (ROI), Value-Based Purchasing (VBP), bundled payments, and basic marketing strategies	19.9%	3.30
107	IIIC1	Care Environment Management	Healthcare Systems/Organizations	Apply knowledge of teamwork to manage change and disseminate information at the systems level	5.8%	3.72
108	IIIC2	Care Environment Management	Healthcare Systems/Organizations	Critique and/or modify existing policies and procedures based on current evidence	7.2%	3.69
109	IIIC3	Care Environment Management	Healthcare Systems/Organizations	Implement system-based strategies that decrease healthcare disparities	13.4%	3.46
110	IIIC4	Care Environment Management	Healthcare Systems/Organizations	Apply theories of systems thinking to address problems and develop solutions	8.3%	3.49
111	IIIC5	Care Environment Management	Healthcare Systems/Organizations	Distinguish how health care delivery systems are organized and their effect on patient care	9.8%	3.45
112	IIIC6	Care Environment Management	Healthcare Systems/Organizations	Identify the economic, legal, and political factors that influence health care delivery	12.4%	3.33

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
113	IIID1	Care Environment Management	Evidence-Based Practice	Create framework within the microsystem to integrate patient and family preferences, interprofessional clinical expertise, and best evidence into clinical decisions	10.3%	3.68
114	IIID2	Care Environment Management	Evidence-Based Practice	Develop foundations for assessment and clinical decisions by applying evidence-based practice	7.2%	3.68
115	IIID3	Care Environment Management	Evidence-Based Practice	Synthesize quantitative or qualitative evidence for critical thinking and decision making to achieve optimal patient outcomes	9.1%	3.65
116	IIID4	Care Environment Management	Evidence-Based Practice	Select relevant sources of evidence to meet specific needs of patients, microsystems, or communities when planning care	6.9%	3.68
117	IIID5	Care Environment Management	Evidence-Based Practice	Use current evidence to improve patient care	4.0%	3.78
118	IIID6	Care Environment Management	Evidence-Based Practice	Identify relevant outcomes and measurement strategies that will improve patient outcomes and promote cost effective care	6.9%	3.69

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
119	III E1	Care Environment Management	Quality Improvement and Safety	Employ quality improvement methods in evaluating individual and aggregate patient care	6.9%	3.72
120	III E2	Care Environment Management	Quality Improvement and Safety	Evaluate healthcare outcomes through the acquisition of data and the questioning of inconsistencies	7.6%	3.68
121	III E3	Care Environment Management	Quality Improvement and Safety	Develop and implement the redesign of patient care utilizing assessment methodologies including but not limited to: gap analysis, Failure Modes Effect Analysis (FMEA), Root Cause Analysis (RCA), Plan-Do-Study-Act (PDSA) Cycles, and microsystem assessment.	9.1%	3.71
122	III E4	Care Environment Management	Quality Improvement and Safety	Gather, analyze and synthesize data related to risk anticipation to reduce risk and maintain patient safety	7.6%	3.67
123	III E5	Care Environment Management	Quality Improvement and Safety	Employ strategies to guide the interprofessional team in quality improvement activities within the microsystem to impact the meso- and macrosystems.	8.8%	3.70

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
124	IIIF1	Care Environment Management	Healthcare Informatics	Assess, critique, and analyze information sources	7.6%	3.53
125	IIIF2	Care Environment Management	Healthcare Informatics	Design care utilizing informatics and patient care technology	12.0%	3.38
126	IIIF3	Care Environment Management	Healthcare Informatics	Apply multiple sources of systems data in designing processes for care delivery	13.9%	3.40
127	IIIF4	Care Environment Management	Healthcare Informatics	Evaluate clinical information systems in order to provide feedback related to efficient and accurate documentation.	12.0%	3.45
128	IIIF5	Care Environment Management	Healthcare Informatics	Apply ethical principles in the use of information systems	7.6%	3.52
129	IIIF6	Care Environment Management	Healthcare Informatics	Evaluate the impact of new technologies on patients, families and healthcare delivery	12.0%	3.49

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
130	IIIF7	Care Environment Management	Healthcare Informatics	Identify and assess the relationships between information systems, accurate communication, error reduction, and healthcare system operation	9.5%	3.50
131	IIIF8	Care Environment Management	Healthcare Informatics	Analyze and disseminate healthcare information among the interprofessional team and across the care continuum	9.8%	3.55
132	IIIF9	Care Environment Management	Healthcare Informatics	Validate accuracy of consumer-provided information regarding culturally relevant health issues from multiple sources	15.6%	3.38
133	IIIF10	Care Environment Management	Healthcare Informatics	Utilize technology for health promotion and disease prevention	10.2%	3.52
134	IIIF11	Care Environment Management	Healthcare Informatics	Collaborate with quality improvement and information technology teams to design and implement processes for improving patient outcomes	10.5%	3.62
135	IIIF12	Care Environment Management	Healthcare Informatics	Utilize current technology to anticipate patient risk	9.8%	3.48

Order	Element	Domain	Subdomain	KSA	Rate of Nonperformance	Mean Importance
136	IIIF13	Care Environment Management	Healthcare Informatics	Demonstrate to other healthcare providers the efficient and appropriate use of healthcare technologies to maximize healthcare outcomes	9.1%	3.46
137	IIIF14	Care Environment Management	Healthcare Informatics	Access, critique, and analyze information from multiple sources	8.0%	3.55
138	IIIG1	Care Environment Management	Patient Assessment	Perform an advanced comprehensive assessment of the patient across the lifespan (e.g.: health history, culture, socioeconomic status, spirituality, health literacy)	11.5%	3.63
139	IIIG2	Care Environment Management	Patient Assessment	Perform an advanced assessment of microsystems across the care continuum to determine patient population care needs	11.2%	3.64
140	IIIH1	Care Environment Management	Ethics	Apply patient-centered ethical decision-making framework to clinical situations that incorporates moral concepts, professional ethics, and law	5.1%	3.65
141	IIIH2	Care Environment Management	Ethics	Apply legal and ethical guidelines to advocate for patient well-being and preferences	6.3%	3.65
142	IIIH3	Care Environment Management	Ethics	Identify and analyze common ethical dilemmas including the impact on patient care and outcomes	6.6%	3.62

<b>Order</b>	<b>Element</b>	<b>Domain</b>	<b>Subdomain</b>	<b>KSA</b>	<b>Rate of Nonperformance</b>	<b>Mean Importance</b>
143	IIIH4	Care Environment Management	Ethics	Evaluate ethical decision making from both a personal and organizational perspective and analyze how these two perspectives may create conflicts of interest	8.5%	3.62
144	IIIH5	Care Environment Management	Ethics	Collaborate with the ethics committee and recognize their role in health care delivery	13.2%	3.51

## Appendix K: KSAs Ordered by Nonperformance Rating

**Table K-1**  
*KSAs in Descending Order of Nonperformance*

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
82	IID3	Clinical Outcomes Management	Healthcare Policy	Apply strategies to influence regulatory, legislative, and public policy in private and public sectors to promote healthy communities	285	68	23.9%
103	IIIB8	Care Environment Management	Healthcare Finance and Economics	Analyze and disseminate cost effective outcomes related to CNL practice to policy makers, healthcare providers, and patients	277	59	21.3%
100	IIIB5	Care Environment Management	Healthcare Finance and Economics	Apply basic business and economic principles and practices, including but not limited to: budgeting, product testing, marketing, and organizational theory to the delivery of healthcare at the microsystem level	277	57	20.6%
106	IIIB11	Care Environment Management	Healthcare Finance and Economics	Examine current healthcare economic concepts including but not limited to: Return on Investment (ROI), Value-Based Purchasing (VBP), bundled payments, and basic marketing strategies	276	55	19.9%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
104	IIIB9	Care Environment Management	Healthcare Finance and Economics	Interpret the impact of both public and private reimbursement policies that may affect patient care decisions	275	54	19.6%
76	IIC6	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Develop clinical and health promotion programs for patient populations to reduce risk, prevent disease, and prevent disease sequelae, particularly related to chronic illness	286	56	19.6%
75	IIC5	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Assess protective, predictive, and genetic factors that influence the health of patients	285	55	19.3%
105	IIIB10	Care Environment Management	Healthcare Finance and Economics	Evaluate the effect of healthcare financing on access to care and patient outcomes	273	52	19.0%
77	IIC7	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Recognize the need for and develop community partnerships to establish risk reduction strategies to address social and public health issues	285	54	18.9%
87	IID8	Clinical Outcomes Management	Healthcare Policy	Evaluate local, state, and national socioeconomic and health policy issues and trends as they relate to the delivery of healthcare	284	53	18.7%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
99	IIIB4	Care Environment Management	Healthcare Finance and Economics	Identify high cost /high volume activities, to benchmark costs nationally and across care settings	277	49	17.7%
60	IIA15	Clinical Outcomes Management	Illness/Disease Management	Identify and interpret epidemiological patterns in order to manage illness and disease	288	49	17.0%
102	IIIB7	Care Environment Management	Healthcare Finance and Economics	Identify the impact of financial policies on healthcare delivery and patient outcomes	277	46	16.6%
39	ID6	Nursing Leadership	Implementation of the CNL Role	Collaborate with a network of CNL professionals at the system, regional, national, or international level	285	47	16.5%
30	IC7	Nursing Leadership	Healthcare Advocacy	Explain healthcare issues and concerns to key stakeholders including elected and appointed officials, policy organizations, and to healthcare consumers	287	47	16.4%
62	IIB2	Clinical Outcomes Management	Knowledge Management	Participate in disease surveillance and investigation	288	47	16.3%
85	IID6	Clinical Outcomes Management	Healthcare Policy	Differentiate between legislative and regulatory processes and how they impact nursing practice and healthcare delivery	284	46	16.2%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
132	IIIF9	Care Environment Management	Healthcare Informatics	Validate accuracy of consumer-provided information regarding culturally relevant health issues from multiple sources	275	43	15.6%
24	IC1	Nursing Leadership	Healthcare Advocacy	Develop a political voice as a member of the nursing profession to influence access to care and provision of quality services to all	288	45	15.6%
83	IID4	Clinical Outcomes Management	Healthcare Policy	Recognize the interactive effect of economics on national/global health policy related to health outcomes	285	44	15.4%
38	ID5	Nursing Leadership	Implementation of the CNL Role	Synthesize CNL practice outcomes for dissemination at system, regional, national, or international level	286	44	15.4%
80	IID1	Clinical Outcomes Management	Healthcare Policy	Apply micro-, meso-, and macrosystems perspectives when analyzing healthcare policy	287	44	15.3%
78	IIC8	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Incorporate cultural definitions of health into health promotion and disease prevention strategies	285	43	15.1%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
79	IIC9	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Incorporate theories and research in creating patient engagement strategies to promote and preserve health and healthy lifestyles	283	42	14.8%
86	IID7	Clinical Outcomes Management	Healthcare Policy	Explore the interaction between regulatory and quality controls within the healthcare delivery system	286	42	14.7%
74	IIC4	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Design and implement interventions to modify risk factors and promote engagement in healthy lifestyles for diverse populations	287	42	14.6%
98	IIIB3	Care Environment Management	Healthcare Finance and Economics	Evaluate the fiscal context in which practice occurs	277	40	14.4%
126	IIIF3	Care Environment Management	Healthcare Informatics	Apply multiple sources of systems data in designing processes for care delivery	273	38	13.9%
109	IIIC3	Care Environment Management	Healthcare Systems/Organizations	Implement system-based strategies that decrease healthcare disparities	276	37	13.4%
144	IIIH5	Care Environment Management	Ethics	Collaborate with the ethics committee and recognize their role in healthcare delivery	273	36	13.2%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
72	IIC2	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Employ strategies to engage patients in therapeutic partnerships with interprofessional team members for disease management and self-care activation	288	37	12.8%
101	IIIB6	Care Environment Management	Healthcare Finance and Economics	Apply ethical principles in regard to healthcare delivery relating to healthcare financing and economics.	277	35	12.6%
81	IID2	Clinical Outcomes Management	Healthcare Policy	Recognize the effect of healthcare policy on health promotion, risk reduction, and disease and injury prevention with emphasis on vulnerable populations	286	36	12.6%
112	IIIC6	Care Environment Management	Healthcare Systems/Organizations	Identify the economic, legal, and political factors that influence healthcare delivery	275	34	12.4%
129	IIIF6	Care Environment Management	Healthcare Informatics	Evaluate the impact of new technologies on patients, families and healthcare delivery	274	33	12.0%
125	IIIF2	Care Environment Management	Healthcare Informatics	Design care utilizing informatics and patient care technology	276	33	12.0%
127	IIIF4	Care Environment Management	Healthcare Informatics	Evaluate clinical information systems in order to provide feedback related to efficient and accurate documentation.	276	33	12.0%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
84	IID5	Clinical Outcomes Management	Healthcare Policy	Analyze the effect of healthcare policy on standards of care and scope of practice	287	34	11.8%
53	IIA8	Clinical Outcomes Management	Illness/Disease Management	Integrate community resources, social networks, and decision support mechanisms into care management	289	34	11.8%
138	IIIG1	Care Environment Management	Patient Assessment	Perform an advanced comprehensive assessment of the patient across the lifespan (e.g.: health history, culture, socioeconomic status, spirituality, health literacy)	270	31	11.5%
139	IIIG2	Care Environment Management	Patient Assessment	Perform an advanced assessment of microsystems across the care continuum to determine patient population care needs	267	30	11.2%
37	ID4	Nursing Leadership	Implementation of the CNL Role	Appraise and apply current and new CNL evidence, competence, and practice	285	32	11.2%
52	IIA7	Clinical Outcomes Management	Illness/Disease Management	Apply theories of chronic illness care and population health management to patient and families	286	32	11.2%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
47	IIA2	Clinical Outcomes Management	Illness/Disease Management	Evaluate care for patients across the lifespan with particular emphasis on health promotion and risk reduction services	287	32	11.1%
34	ID1	Nursing Leadership	Implementation of the CNL Role	Demonstrate professional identity and practice in developing the CNL role	289	32	11.1%
65	IIB5	Clinical Outcomes Management	Knowledge Management	Identify variations in clinical outcomes among various groups to determine where nurses have the greatest impact at the microsystem level	286	31	10.8%
73	IIC3	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Identify and/or modify interventions based on evidence to meet specific patient needs for health promotion and disease prevention	286	31	10.8%
134	IIIF11	Care Environment Management	Healthcare Informatics	Collaborate with quality improvement and information technology teams to design and implement processes for improving patient outcomes	275	29	10.5%
61	IIB1	Clinical Outcomes Management	Knowledge Management	Collect data that documents the characteristics, conditions, and outcomes for various patient groups	288	30	10.4%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
113	IIID1	Care Environment Management	Evidence-Based Practice	Create framework within the microsystem to integrate patient and family preferences, interprofessional clinical expertise, and best evidence into clinical decisions	273	28	10.3%
70	IIB10	Clinical Outcomes Management	Knowledge Management	Distinguish the impact of health literacy of patient engagement and activation for self-care	283	29	10.2%
133	IIIF10	Care Environment Management	Healthcare Informatics	Utilize technology for health promotion and disease prevention	274	28	10.2%
25	IC2	Nursing Leadership	Healthcare Advocacy	Initiate partnerships to identify health disparities, establish health promotion goals, and implement strategies to address those concerns	286	29	10.1%
111	IIIC5	Care Environment Management	Healthcare Systems/Organizations	Distinguish how healthcare delivery systems are organized and their effect on patient care	275	27	9.8%
131	IIIF8	Care Environment Management	Healthcare Informatics	Analyze and disseminate healthcare information among the interprofessional team and across the care continuum	275	27	9.8%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
54	IIA9	Clinical Outcomes Management	Illness/Disease Management	Recognize differences in responses to illness and therapies based on patient's cultural, ethnic, socioeconomic, linguistic, religious, and lifestyle preferences	286	28	9.8%
135	IIIF12	Care Environment Management	Healthcare Informatics	Utilize current technology to anticipate patient risk	276	27	9.8%
130	IIIF7	Care Environment Management	Healthcare Informatics	Identify and assess the relationships between information systems, accurate communication, error reduction, and healthcare system operation	275	26	9.5%
43	IE4	Nursing Leadership	Lateral Integration of Care Services	Apply care management skills and principles to provide and coordinate patient care within and across specific episodes of illness and throughout the care continuum	287	27	9.4%
45	IE6	Nursing Leadership	Lateral Integration of Care Services	Apply systems and organization theory in the design, delivery, and evaluation of healthcare delivery across the care continuum	287	27	9.4%
46	IIA1	Clinical Outcomes Management	Illness/Disease Management	Coordinate the provision and management of care at the microsystem level and across the care continuum	289	27	9.3%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
136	IIIF13	Care Environment Management	Healthcare Informatics	Demonstrate to other healthcare providers the efficient and appropriate use of healthcare technologies to maximize healthcare outcomes	275	25	9.1%
115	IIID3	Care Environment Management	Evidence-Based Practice	Synthesize quantitative or qualitative evidence for critical thinking and decision making to achieve optimal patient outcomes	276	25	9.1%
121	IIIE3	Care Environment Management	Quality Improvement and Safety	Develop and implement the redesign of patient care utilizing assessment methodologies including but not limited to: gap analysis, Failure Modes Effect Analysis (FMEA), Root Cause Analysis (RCA), Plan-Do-Study-Act (PDSA) Cycles, and microsystem assessment.	276	25	9.1%
67	IIB7	Clinical Outcomes Management	Knowledge Management	Integrate assessment data into information management systems for decision support	288	26	9.0%
35	ID2	Nursing Leadership	Implementation of the CNL Role	Explain the capacity of CNL practice to improve healthcare processes and outcomes	289	26	9.0%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
123	IIIE5	Care Environment Management	Quality Improvement and Safety	Employ strategies to guide the interprofessional team in quality improvement activities within the microsystem to impact the meso- and macrosystems.	273	24	8.8%
68	IIB8	Clinical Outcomes Management	Knowledge Management	Analyze and disseminate microsystem data that impacts health outcomes	285	25	8.8%
59	IIA14	Clinical Outcomes Management	Illness/Disease Management	Coordinate and implement education programs for patients and health professionals	287	25	8.7%
28	IC5	Nursing Leadership	Healthcare Advocacy	Negotiate and advocate for the nursing profession, the CNL role, and the interprofessional team to healthcare providers, policy makers, and consumers	288	25	8.7%
96	IIIB1	Care Environment Management	Healthcare Finance and Economics	Propose cost effective strategies and/or interventions to the interprofessional team that improve efficiency and patient care outcomes.	277	24	8.7%
55	IIA10	Clinical Outcomes Management	Illness/Disease Management	Identify disease patterns and their implications on patient's activation for self-care and on-going care	289	25	8.7%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
56	IIA11	Clinical Outcomes Management	Illness/Disease Management	Use advanced knowledge of pathophysiology, assessment, and pharmacology to anticipate illness progression, response to therapy and to guide, teach, and engage patients and families regarding care	289	25	8.7%
143	IIIH4	Care Environment Management	Ethics	Evaluate ethical decision making from both a personal and organizational perspective and analyze how these two perspectives may create conflicts of interest	271	23	8.5%
40	IE1	Nursing Leadership	Lateral Integration of Care Services	Coordinate the healthcare of patients across the care continuum	287	24	8.4%
110	IIIC4	Care Environment Management	Healthcare Systems/Organizations	Apply theories of systems thinking to address problems and develop solutions	276	23	8.3%
57	IIA12	Clinical Outcomes Management	Illness/Disease Management	Use knowledge of cost and affordability issues in managing patient illness/disease across the care continuum	289	24	8.3%
63	IIB3	Clinical Outcomes Management	Knowledge Management	Apply knowledge of technology, equipment, treatment regimens, or medication therapies to anticipate risk	286	23	8.0%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
3	IA3	Nursing Leadership	Horizontal Leadership	Facilitate delegation of patient care coordination activities	287	23	8.0%
137	IIIF14	Care Environment Management	Healthcare Informatics	Access, critique, and analyze information from multiple sources	275	22	8.0%
51	IIA6	Clinical Outcomes Management	Illness/Disease Management	Analyze microsystems of care and outcome datasets to anticipate patient risk and improve quality of care delivery	288	23	8.0%
49	IIA4	Clinical Outcomes Management	Illness/Disease Management	Evaluate and determine readiness, needs, and interventions for safe transition of care	289	23	8.0%
44	IE5	Nursing Leadership	Lateral Integration of Care Services	Manage, monitor, and influence the microsystem environment to foster health and quality of care across the care continuum	283	22	7.8%
50	IIA5	Clinical Outcomes Management	Illness/Disease Management	Design and modify patient care based on analysis of outcomes, evidence-based knowledge, and patient's goals of care	287	22	7.7%
8	IA8	Nursing Leadership	Horizontal Leadership	Organize a framework for systematic collaborative team practices to address the complexity of patient care issues	288	22	7.6%
120	IIIE2	Care Environment Management	Quality Improvement and Safety	Evaluate healthcare outcomes through the acquisition of data and the questioning of inconsistencies	275	21	7.6%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
124	IIIF1	Care Environment Management	Healthcare Informatics	Assess, critique, and analyze information sources	275	21	7.6%
122	IIIE4	Care Environment Management	Quality Improvement and Safety	Gather, analyze and synthesize data related to risk anticipation to reduce risk and maintain patient safety	276	21	7.6%
128	IIIF5	Care Environment Management	Healthcare Informatics	Apply ethical principles in the use of information systems	276	21	7.6%
66	IIB6	Clinical Outcomes Management	Knowledge Management	Synthesize data, information, and knowledge to evaluate and achieve optimal patient outcomes	285	21	7.4%
42	IE3	Nursing Leadership	Lateral Integration of Care Services	Coordinate and perform risk analysis using appropriate evidence-based tools to predict patient risk and safety issues within and across microsystems	288	21	7.3%
108	IIIC2	Care Environment Management	Healthcare Systems/Organizations	Critique and/or modify existing policies and procedures based on current evidence	276	20	7.2%
114	IIID2	Care Environment Management	Evidence-Based Practice	Develop foundations for assessment and clinical decisions by applying evidence-based practice	277	20	7.2%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
58	IIA13	Clinical Outcomes Management	Illness/Disease Management	Synthesize literature and research findings as the foundation for the design of interventions for illness and disease management	284	20	7.0%
88	IIIA1	Care Environment Management	Team Coordination	Perform, teach, delegate, and manage skilled nursing procedures in the context of safety	284	20	7.0%
4	IA4	Nursing Leadership	Horizontal Leadership	Appraise and evaluate coordinated care activities	286	20	7.0%
64	IIB4	Clinical Outcomes Management	Knowledge Management	Compare and evaluate trends of institutional and unit data to national benchmarks	287	20	7.0%
7	IA7	Nursing Leadership	Horizontal Leadership	Coordinate evaluation and update plans of care at an advanced level collaboratively with the interprofessional team and the patient	288	20	6.9%
10	IA10	Nursing Leadership	Horizontal Leadership	Manage and lead group processes to meet care objectives and complete healthcare team responsibilities	288	20	6.9%
29	IC6	Nursing Leadership	Healthcare Advocacy	Identify and propose microsystem resources to meet the needs of target populations	288	20	6.9%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
71	IIC1	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Collaborate with interprofessional team members to promote health and/or prevent disease	288	20	6.9%
119	IIIE1	Care Environment Management	Quality Improvement and Safety	Employ quality improvement methods in evaluating individual and aggregate patient care	274	19	6.9%
36	ID3	Nursing Leadership	Implementation of the CNL Role	Exhibit qualities of a microsystem leader within and across interprofessional teams	289	20	6.9%
118	IIID6	Care Environment Management	Evidence-Based Practice	Identify relevant outcomes and measurement strategies that will improve patient outcomes and promote cost effective care	275	19	6.9%
116	IIID4	Care Environment Management	Evidence-Based Practice	Select relevant sources of evidence to meet specific needs of patients, microsystems, or communities when planning care	276	19	6.9%
97	IIIB2	Care Environment Management	Healthcare Finance and Economics	Serve as a steward for the environmental, human, and material resources while coordinating patient care	277	19	6.9%
142	IIIH3	Care Environment Management	Ethics	Identify and analyze common ethical dilemmas including the impact on patient care and outcomes	273	18	6.6%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
1	IA1	Nursing Leadership	Horizontal Leadership	Apply leadership change and complexity theories	289	19	6.6%
31	IC8	Nursing Leadership	Healthcare Advocacy	Translate appropriate healthcare information to advocate for informed healthcare decision making	284	18	6.3%
141	IIIH2	Care Environment Management	Ethics	Apply legal and ethical guidelines to advocate for patient well-being and preferences	271	17	6.3%
26	IC3	Nursing Leadership	Healthcare Advocacy	Interface between the patient and the healthcare delivery system to protect the rights of patients and to effect quality outcomes; knowledge of patient rights and responsibilities	287	18	6.3%
41	IE2	Nursing Leadership	Lateral Integration of Care Services	Integrate an interprofessional approach to discuss strategies to identify and acquire resources for patient populations	287	18	6.3%
69	IIB9	Clinical Outcomes Management	Knowledge Management	Employ strategies to engage the interprofessional team to impact healthcare outcomes	285	17	6.0%
107	IIIC1	Care Environment Management	Healthcare Systems/Organizations	Apply knowledge of teamwork to manage change and disseminate information at the systems level	276	16	5.8%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
5	IA5	Nursing Leadership	Horizontal Leadership	Demonstrate accountability for microsystems healthcare outcomes	287	16	5.6%
16	IB4	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Employ appropriate communication techniques and strategies that address social, political, economic, environmental, technological, and historical issues	289	16	5.5%
48	IIA3	Clinical Outcomes Management	Illness/Disease Management	Identify patient problems that require intervention, with special focus on those problems amenable to nursing intervention	289	16	5.5%
90	IIIA3	Care Environment Management	Team Coordination	Evaluate underlying assumptions and relevant evidence that influence patient and interprofessional team behavior	283	15	5.3%
27	IC4	Nursing Leadership	Healthcare Advocacy	Ensure that patients, families, and communities are well informed in creating a patient-centered plan of care	287	15	5.2%
140	IIIH1	Care Environment Management	Ethics	Apply patient-centered ethical decision-making framework to clinical situations that incorporates moral concepts, professional ethics, and law	272	14	5.1%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
93	IIIA6	Care Environment Management	Team Coordination	Identify areas in which a conflict of interest may arise and propose resolutions or actions to resolve/prevent the conflict	282	14	5.0%
95	IIIA8	Care Environment Management	Team Coordination	Incorporate patient/family/interprofessional team input to design, coordinate, and evaluate plans of care	283	14	4.9%
15	IB3	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Employ effective negotiation skills	289	14	4.8%
14	IB2	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Apply concepts of communication skills including critical listening during assessment, intervention, evaluation, and education of patients, families, and the healthcare team	285	13	4.6%
2	IA2	Nursing Leadership	Horizontal Leadership	Apply strategies to guide the collaborative team to use clinical judgement to make safe patient care decisions	289	13	4.5%
92	IIIA5	Care Environment Management	Team Coordination	Facilitate group processes to meet care objectives to ensure completion of interprofessional team responsibilities	283	12	4.2%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
17	IB5	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Utilize interprofessional communication, collaboration, and group process concepts to meet care objectives and complete healthcare responsibilities	287	12	4.2%
18	IB6	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Translate and interpret data for the patients, families, and the healthcare team	288	12	4.2%
13	IB1	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Analyze patterns of communication and chain of command that impact care within the interprofessional team and across settings	289	12	4.2%
117	IIID5	Care Environment Management	Evidence-Based Practice	Use current evidence to improve patient care	277	11	4.0%
32	IC9	Nursing Leadership	Healthcare Advocacy	Recommend improvements in the institution or healthcare system and the nursing profession	283	11	3.9%
21	IB9	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Incorporate knowledge of cultural differences to bridge cultural and linguistic barriers	288	10	3.5%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
89	IIIA2	Care Environment Management	Team Coordination	Demonstrate effectiveness in group interactions, particularly in skills necessary to interact and collaborate with other members of the interprofessional team	283	9	3.2%
9	IA9	Nursing Leadership	Horizontal Leadership	Serve as a partner and leader in the interprofessional health team	286	9	3.1%
91	IIIA4	Care Environment Management	Team Coordination	Establish and maintain effective working relationships within an interprofessional, multicultural team to make ethical decisions	284	8	2.8%
33	IC10	Nursing Leadership	Healthcare Advocacy	Advocate for patients, particularly the most vulnerable	285	8	2.8%
11	IA11	Nursing Leadership	Horizontal Leadership	Develop effective working relationships within an interprofessional team to influence microsystem outcomes	288	8	2.8%
94	IIIA7	Care Environment Management	Team Coordination	Promote a positive and healthy work environment and a culture of retention	283	7	2.5%
6	IA6	Nursing Leadership	Horizontal Leadership	Practice as a role model for other healthcare providers, including coaching and mentoring the healthcare team	286	7	2.4%

Order	Element	Domain	Subdomain	KSA	# of Ratings	Nonperformance	
						Frequency	%
19	IB7	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Communicate effectively in a variety of written and spoken formats	285	6	2.1%
22	IB10	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Integrate emotional intelligence in communication and collaboration with patients, families, and the healthcare team	286	6	2.1%
23	IB11	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Recognize and utilize the roles and responsibilities of the interprofessional team	288	6	2.1%
20	IB8	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Construct relationships with interprofessional team including management and administration	287	5	1.7%
12	IA12	Nursing Leadership	Horizontal Leadership	Demonstrate higher order critical thinking and problem solving skills	287	4	1.4%

## Appendix L: KSAs Ordered by Mean Importance Rating

**Table L-1**  
*KSAs in Ascending Order of Mean Importance*

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
24	IC1	Nursing Leadership	Healthcare Advocacy	Develop a political voice as a member of the nursing profession to influence access to care and provision of quality services to all	243	3.03	0.90
62	IIB2	Clinical Outcomes Management	Knowledge Management	Participate in disease surveillance and investigation	241	3.15	0.87
82	IID3	Clinical Outcomes Management	Healthcare Policy	Apply strategies to influence regulatory, legislative, and public policy in private and public sectors to promote healthy communities	217	3.17	0.82
87	IID8	Clinical Outcomes Management	Healthcare Policy	Evaluate local, state, and national socioeconomic and health policy issues and trends as they relate to the delivery of healthcare	231	3.18	0.87
30	IC7	Nursing Leadership	Healthcare Advocacy	Explain healthcare issues and concerns to key stakeholders including elected and appointed officials, policy organizations, and to healthcare consumers	240	3.20	0.89
85	IID6	Clinical Outcomes Management	Healthcare Policy	Differentiate between legislative and regulatory processes and how they impact nursing practice and healthcare delivery	238	3.20	0.89

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
75	IIC5	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Assess protective, predictive, and genetic factors that influence the health of patients	230	3.21	0.88
60	IIA15	Clinical Outcomes Management	Illness/Disease Management	Identify and interpret epidemiological patterns in order to manage illness and disease	239	3.21	0.86
100	IIIB5	Care Environment Management	Healthcare Finance and Economics	Apply basic business and economic principles and practices, including but not limited to: budgeting, product testing, marketing, and organizational theory to the delivery of healthcare at the microsystem level	220	3.22	0.82
83	IID4	Clinical Outcomes Management	Healthcare Policy	Recognize the interactive effect of economics on national/global health policy related to health outcomes	241	3.23	0.85
25	IC2	Nursing Leadership	Healthcare Advocacy	Initiate partnerships to identify health disparities, establish health promotion goals, and implement strategies to address those concerns	257	3.23	0.83
98	IIIB3	Care Environment Management	Healthcare Finance and Economics	Evaluate the fiscal context in which practice occurs	237	3.24	0.84
106	IIIB11	Care Environment Management	Healthcare Finance and Economics	Examine current healthcare economic concepts including but not limited to: Return on Investment (ROI), Value-Based Purchasing (VBP), bundled payments, and basic marketing strategies	221	3.30	0.84

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
104	IIIB9	Care Environment Management	Healthcare Finance and Economics	Interpret the impact of both public and private reimbursement policies that may affect patient care decisions	221	3.31	0.84
77	IIC7	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Recognize the need for and develop community partnerships to establish risk reduction strategies to address social and public health issues	231	3.32	0.82
112	IIIC6	Care Environment Management	Healthcare Systems/Organizations	Identify the economic, legal, and political factors that influence health care delivery	241	3.33	0.80
105	IIIB10	Care Environment Management	Healthcare Finance and Economics	Evaluate the effect of healthcare financing on access to care and patient outcomes	221	3.33	0.82
84	IID5	Clinical Outcomes Management	Healthcare Policy	Analyze the effect of healthcare policy on standards of care and scope of practice	253	3.34	0.76
80	IID1	Clinical Outcomes Management	Healthcare Policy	Apply micro-, meso-, and macrosystems perspectives when analyzing healthcare policy	243	3.35	0.79
99	IIIB4	Care Environment Management	Healthcare Finance and Economics	Identify high cost /high volume activities, to benchmark costs nationally and across care settings	228	3.36	0.77

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
86	IID7	Clinical Outcomes Management	Healthcare Policy	Explore the interaction between regulatory and quality controls within the healthcare delivery system	244	3.36	0.83
78	IIC8	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Incorporate cultural definitions of health into health promotion and disease prevention strategies	242	3.36	0.82
79	IIC9	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Incorporate theories and research in creating patient engagement strategies to promote and preserve health and healthy lifestyles	241	3.36	0.77
132	IIIF9	Care Environment Management	Healthcare Informatics	Validate accuracy of consumer-provided information regarding culturally relevant health issues from multiple sources	232	3.38	0.79
125	IIIF2	Care Environment Management	Healthcare Informatics	Design care utilizing informatics and patient care technology	243	3.38	0.75
126	IIIF3	Care Environment Management	Healthcare Informatics	Apply multiple sources of systems data in designing processes for care delivery	235	3.40	0.75
76	IIC6	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Develop clinical and health promotion programs for patient populations to reduce risk, prevent disease, and prevent disease sequelae, particularly related to chronic illness	230	3.40	0.83

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
52	IIA7	Clinical Outcomes Management	Illness/Disease Management	Apply theories of chronic illness care and population health management to patient and families	254	3.40	0.78
70	IIB10	Clinical Outcomes Management	Knowledge Management	Distinguish the impact of health literacy of patient engagement and activation for self-care	254	3.40	0.80
16	IB4	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Employ appropriate communication techniques and strategies that address social, political, economic, environmental, technological, and historical issues	273	3.40	0.76
28	IC5	Nursing Leadership	Healthcare Advocacy	Negotiate and advocate for the nursing profession, the CNL role, and the interprofessional team to healthcare providers, policy makers, and consumers	263	3.41	0.81
81	IID2	Clinical Outcomes Management	Healthcare Policy	Recognize the effect of healthcare policy on health promotion, risk reduction, and disease and injury prevention with emphasis on vulnerable populations	250	3.41	0.78
102	IIIB7	Care Environment Management	Healthcare Finance and Economics	Identify the impact of financial policies on healthcare delivery and patient outcomes	231	3.42	0.74
38	ID5	Nursing Leadership	Implementation of the CNL Role	Synthesize CNL practice outcomes for dissemination at system, regional, national, or international level	242	3.42	0.79
103	IIIB8	Care Environment Management	Healthcare Finance and Economics	Analyze and disseminate cost effective outcomes related to CNL practice to policy makers, healthcare providers, and patients	218	3.42	0.78

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
15	IB3	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Employ effective negotiation skills	275	3.42	0.73
3	IA3	Nursing Leadership	Horizontal Leadership	Facilitate delegation of patient care coordination activities	264	3.42	0.79
57	IIA12	Clinical Outcomes Management	Illness/Disease Management	Use knowledge of cost and affordability issues in managing patient illness/disease across the care continuum	265	3.43	0.79
21	IB9	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Incorporate knowledge of cultural differences to bridge cultural and linguistic barriers	278	3.43	0.76
53	IIA8	Clinical Outcomes Management	Illness/Disease Management	Integrate community resources, social networks, and decision support mechanisms into care management	255	3.44	0.74
1	IA1	Nursing Leadership	Horizontal Leadership	Apply leadership change and complexity theories	270	3.44	0.70
111	IIIC5	Care Environment Management	Healthcare Systems/Organizations	Distinguish how health care delivery systems are organized and their effect on patient care	248	3.45	0.76
39	ID6	Nursing Leadership	Implementation of the CNL Role	Collaborate with a network of CNL professionals at the system, regional, national, or international level	238	3.45	0.77
127	IIIF4	Care Environment Management	Healthcare Informatics	Evaluate clinical information systems in order to provide feedback related to efficient and accurate documentation.	243	3.45	0.72

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
13	IB1	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Analyze patterns of communication and chain of command that impact care within the interprofessional team and across settings	277	3.45	0.68
4	IA4	Nursing Leadership	Horizontal Leadership	Appraise and evaluate coordinated care activities	266	3.45	0.72
74	IIC4	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Design and implement interventions to modify risk factors and promote engagement in healthy lifestyles for diverse populations	245	3.46	0.73
45	IE6	Nursing Leadership	Lateral Integration of Care Services	Apply systems and organization theory in the design, delivery, and evaluation of healthcare delivery across the care continuum	260	3.46	0.74
47	IIA2	Clinical Outcomes Management	Illness/Disease Management	Evaluate care for patients across the lifespan with particular emphasis on health promotion and risk reduction services	255	3.46	0.76
136	IIIF13	Care Environment Management	Healthcare Informatics	Demonstrate to other healthcare providers the efficient and appropriate use of healthcare technologies to maximize healthcare outcomes	250	3.46	0.73
42	IE3	Nursing Leadership	Lateral Integration of Care Services	Coordinate and perform risk analysis using appropriate evidence-based tools to predict patient risk and safety issues within and across microsystems	267	3.46	0.82
109	IIIC3	Care Environment Management	Healthcare Systems/Organizations	Implement system-based strategies that decrease healthcare disparities	239	3.46	0.74

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
63	IIB3	Clinical Outcomes Management	Knowledge Management	Apply knowledge of technology, equipment, treatment regimens, or medication therapies to anticipate risk	263	3.47	0.76
31	IC8	Nursing Leadership	Healthcare Advocacy	Translate appropriate healthcare information to advocate for informed healthcare decision making	266	3.48	0.68
135	IIIF12	Care Environment Management	Healthcare Informatics	Utilize current technology to anticipate patient risk	249	3.48	0.68
65	IIB5	Clinical Outcomes Management	Knowledge Management	Identify variations in clinical outcomes among various groups to determine where nurses have the greatest impact at the microsystem level	255	3.48	0.75
110	IIIC4	Care Environment Management	Healthcare Systems/Organizations	Apply theories of systems thinking to address problems and develop solutions	253	3.49	0.73
129	IIIF6	Care Environment Management	Healthcare Informatics	Evaluate the impact of new technologies on patients, families and healthcare delivery	241	3.49	0.72
67	IIB7	Clinical Outcomes Management	Knowledge Management	Integrate assessment data into information management systems for decision support	262	3.49	0.73
61	IIB1	Clinical Outcomes Management	Knowledge Management	Collect data that documents the characteristics, conditions, and outcomes for various patient groups	258	3.50	0.74
130	IIIF7	Care Environment Management	Healthcare Informatics	Identify and assess the relationships between information systems, accurate communication, error reduction, and healthcare system operation	249	3.50	0.70

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
54	IIA9	Clinical Outcomes Management	Illness/Disease Management	Recognize differences in responses to illness and therapies based on patient's cultural, ethnic, socioeconomic, linguistic, religious, and lifestyle preferences	258	3.50	0.77
29	IC6	Nursing Leadership	Healthcare Advocacy	Identify and propose microsystem resources to meet the needs of target populations	268	3.50	0.73
8	IA8	Nursing Leadership	Horizontal Leadership	Organize a framework for systematic collaborative team practices to address the complexity of patient care issues	266	3.50	0.68
97	IIIB2	Care Environment Management	Healthcare Finance and Economics	Serve as a steward for the environmental, human, and material resources while coordinating patient care	258	3.50	0.73
144	IIIH5	Care Environment Management	Ethics	Collaborate with the ethics committee and recognize their role in health care delivery	237	3.51	0.72
90	IIIA3	Care Environment Management	Team Coordination	Evaluate underlying assumptions and relevant evidence that influence patient and interprofessional team behavior	268	3.51	0.74
133	IIIF10	Care Environment Management	Healthcare Informatics	Utilize technology for health promotion and disease prevention	246	3.52	0.69
101	IIIB6	Care Environment Management	Healthcare Finance and Economics	Apply ethical principles in regard to healthcare delivery relating to healthcare financing and economics.	242	3.52	0.70

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
26	IC3	Nursing Leadership	Healthcare Advocacy	Interface between the patient and the healthcare delivery system to protect the rights of patients and to effect quality outcomes; knowledge of patient rights and responsibilities	269	3.52	0.73
128	IIIF5	Care Environment Management	Healthcare Informatics	Apply ethical principles in the use of information systems	255	3.52	0.73
58	IIA13	Clinical Outcomes Management	Illness/Disease Management	Synthesize literature and research findings as the foundation for the design of interventions for illness and disease management	264	3.52	0.75
59	IIA14	Clinical Outcomes Management	Illness/Disease Management	Coordinate and implement education programs for patients and health professionals	262	3.52	0.71
124	IIIF1	Care Environment Management	Healthcare Informatics	Assess, critique, and analyze information sources	254	3.53	0.70
7	IA7	Nursing Leadership	Horizontal Leadership	Coordinate evaluation and update plans of care at an advanced level collaboratively with the interprofessional team and the patient	268	3.53	0.74
55	IIA10	Clinical Outcomes Management	Illness/Disease Management	Identify disease patterns and their implications on patient's activation for self-care and on-going care	264	3.53	0.73
96	IIIB1	Care Environment Management	Healthcare Finance and Economics	Propose cost effective strategies and/or interventions to the interprofessional team that improve efficiency and patient care outcomes.	253	3.55	0.70

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
131	IIIF8	Care Environment Management	Healthcare Informatics	Analyze and disseminate healthcare information among the interprofessional team and across the care continuum	248	3.55	0.67
51	IIA6	Clinical Outcomes Management	Illness/Disease Management	Analyze microsystems of care and outcome datasets to anticipate patient risk and improve quality of care delivery	265	3.55	0.74
137	IIIF14	Care Environment Management	Healthcare Informatics	Access, critique, and analyze information from multiple sources	253	3.55	0.65
32	IC9	Nursing Leadership	Healthcare Advocacy	Recommend improvements in the institution or health care system and the nursing profession	272	3.56	0.70
10	IA10	Nursing Leadership	Horizontal Leadership	Manage and lead group processes to meet care objectives and complete healthcare team responsibilities	268	3.56	0.68
34	ID1	Nursing Leadership	Implementation of the CNL Role	Demonstrate professional identity and practice in developing the CNL role	257	3.56	0.73
93	IIIA6	Care Environment Management	Team Coordination	Identify areas in which a conflict of interest may arise and propose resolutions or actions to resolve/prevent the conflict	268	3.56	0.68
73	IIC3	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Identify and/or modify interventions based on evidence to meet specific patient needs for health promotion and disease prevention	255	3.56	0.69

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
43	IE4	Nursing Leadership	Lateral Integration of Care Services	Apply care management skills and principles to provide and coordinate patient care within and across specific episodes of illness and throughout the care continuum	260	3.57	0.67
18	IB6	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Translate and interpret data for the patients, families, and the healthcare team	276	3.57	0.71
5	IA5	Nursing Leadership	Horizontal Leadership	Demonstrate accountability for microsystems healthcare outcomes	271	3.58	0.69
68	IIB8	Clinical Outcomes Management	Knowledge Management	Analyze and disseminate microsystem data that impacts health outcomes	260	3.58	0.71
64	IIB4	Clinical Outcomes Management	Knowledge Management	Compare and evaluate trends of institutional and unit data to national benchmarks	267	3.58	0.71
44	IE5	Nursing Leadership	Lateral Integration of Care Services	Manage, monitor, and influence the microsystem environment to foster health and quality of care across the care continuum	261	3.60	0.69
41	IE2	Nursing Leadership	Lateral Integration of Care Services	Integrate an interprofessional approach to discuss strategies to identify and acquire resources for patient populations	269	3.60	0.67

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
72	IIC2	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Employ strategies to engage patients in therapeutic partnerships with interprofessional team members for disease management and self-care activation	251	3.61	0.64
46	IIA1	Clinical Outcomes Management	Illness/Disease Management	Coordinate the provision and management of care at the microsystem level and across the care continuum	262	3.61	0.65
143	IIIH4	Care Environment Management	Ethics	Evaluate ethical decision making from both a personal and organizational perspective and analyze how these two perspectives may create conflicts of interest	248	3.62	0.63
27	IC4	Nursing Leadership	Healthcare Advocacy	Ensure that patients, families, and communities are well informed in creating a patient-centered plan of care	272	3.62	0.67
134	IIIF11	Care Environment Management	Healthcare Informatics	Collaborate with quality improvement and information technology teams to design and implement processes for improving patient outcomes	246	3.62	0.63
142	IIIH3	Care Environment Management	Ethics	Identify and analyze common ethical dilemmas including the impact on patient care and outcomes	255	3.62	0.61
37	ID4	Nursing Leadership	Implementation of the CNL Role	Appraise and apply current and new CNL evidence, competence, and practice	253	3.62	0.64

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
56	IIA11	Clinical Outcomes Management	Illness/Disease Management	Use advanced knowledge of pathophysiology, assessment, and pharmacology to anticipate illness progression, response to therapy and to guide, teach, and engage patients and families regarding care	264	3.63	0.69
35	ID2	Nursing Leadership	Implementation of the CNL Role	Explain the capacity of CNL practice to improve healthcare processes and outcomes	263	3.63	0.65
49	IIA4	Clinical Outcomes Management	Illness/Disease Management	Evaluate and determine readiness, needs, and interventions for safe transition of care	266	3.63	0.63
138	IIIG1	Care Environment Management	Patient Assessment	Perform an advanced comprehensive assessment of the patient across the lifespan (e.g.: health history, culture, socioeconomic status, spirituality, health literacy)	239	3.63	0.62
40	IE1	Nursing Leadership	Lateral Integration of Care Services	Coordinate the healthcare of patients across the care continuum	263	3.63	0.65
66	IIB6	Clinical Outcomes Management	Knowledge Management	Synthesize data, information, and knowledge to evaluate and achieve optimal patient outcomes	264	3.64	0.64
139	IIIG2	Care Environment Management	Patient Assessment	Perform an advanced assessment of microsystems across the care continuum to determine patient population care needs	237	3.64	0.63
22	IB10	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Integrate emotional intelligence in communication and collaboration with patients, families, and the healthcare team	280	3.65	0.62

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
140	IIIH1	Care Environment Management	Ethics	Apply patient-centered ethical decision-making framework to clinical situations that incorporates moral concepts, professional ethics, and law	258	3.65	0.64
69	IIB9	Clinical Outcomes Management	Knowledge Management	Employ strategies to engage the interprofessional team to impact healthcare outcomes	268	3.65	0.62
115	IIID3	Care Environment Management	Evidence-Based Practice	Synthesize quantitative or qualitative evidence for critical thinking and decision making to achieve optimal patient outcomes	251	3.65	0.64
71	IIC1	Clinical Outcomes Management	Health Promotion and Disease Prevention & Injury Reduction/Prevention Management	Collaborate with interprofessional team members to promote health and/or prevent disease	268	3.65	0.64
141	IIIH2	Care Environment Management	Ethics	Apply legal and ethical guidelines to advocate for patient well-being and preferences	254	3.65	0.61
6	IA6	Nursing Leadership	Horizontal Leadership	Practice as a role model for other healthcare providers, including coaching and mentoring the healthcare team	279	3.66	0.64
92	IIIA5	Care Environment Management	Team Coordination	Facilitate group processes to meet care objectives to ensure completion of interprofessional team responsibilities	271	3.66	0.63
122	IIIE4	Care Environment Management	Quality Improvement and Safety	Gather, analyze and synthesize data related to risk anticipation to reduce risk and maintain patient safety	255	3.67	0.65
50	IIA5	Clinical Outcomes Management	Illness/Disease Management	Design and modify patient care based on analysis of outcomes, evidence-based knowledge, and patient's goals of care	265	3.68	0.63

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
116	IIID4	Care Environment Management	Evidence-Based Practice	Select relevant sources of evidence to meet specific needs of patients, microsystems, or communities when planning care	257	3.68	0.61
120	IIIE2	Care Environment Management	Quality Improvement and Safety	Evaluate healthcare outcomes through the acquisition of data and the questioning of inconsistencies	254	3.68	0.61
113	IIID1	Care Environment Management	Evidence-Based Practice	Create framework within the microsystem to integrate patient and family preferences, interprofessional clinical expertise, and best evidence into clinical decisions	245	3.68	0.60
114	IIID2	Care Environment Management	Evidence-Based Practice	Develop foundations for assessment and clinical decisions by applying evidence-based practice	257	3.68	0.61
108	IIIC2	Care Environment Management	Healthcare Systems/Organizations	Critique and/or modify existing policies and procedures based on current evidence	256	3.69	0.55
118	IIID6	Care Environment Management	Evidence-Based Practice	Identify relevant outcomes and measurement strategies that will improve patient outcomes and promote cost effective care	256	3.69	0.61
36	ID3	Nursing Leadership	Implementation of the CNL Role	Exhibit qualities of a microsystem leader within and across interprofessional teams	269	3.69	0.61
23	IB11	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Recognize and utilize the roles and responsibilities of the interprofessional team	282	3.70	0.58
20	IB8	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Construct relationships with interprofessional team including management and administration	282	3.70	0.61

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
123	IIIE5	Care Environment Management	Quality Improvement and Safety	Employ strategies to guide the interprofessional team in quality improvement activities within the microsystem to impact the meso- and macrosystems.	249	3.70	0.61
88	IIIA1	Care Environment Management	Team Coordination	Perform, teach, delegate, and manage skilled nursing procedures in the context of safety	264	3.70	0.61
121	IIIE3	Care Environment Management	Quality Improvement and Safety	Develop and implement the redesign of patient care utilizing assessment methodologies including but not limited to: gap analysis, Failure Modes Effect Analysis (FMEA), Root Cause Analysis (RCA), Plan-Do-Study-Act (PDSA) Cycles, and microsystem assessment.	251	3.71	0.60
17	IB5	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Utilize interprofessional communication, collaboration, and group process concepts to meet care objectives and complete healthcare responsibilities	275	3.72	0.59
11	IA11	Nursing Leadership	Horizontal Leadership	Develop effective working relationships within an interprofessional team to influence microsystem outcomes	280	3.72	0.58
48	IIA3	Clinical Outcomes Management	Illness/Disease Management	Identify patient problems that require intervention, with special focus on those problems amenable to nursing intervention	273	3.72	0.53
119	IIIE1	Care Environment Management	Quality Improvement and Safety	Employ quality improvement methods in evaluating individual and aggregate patient care	255	3.72	0.54

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
9	IA9	Nursing Leadership	Horizontal Leadership	Serve as a partner and leader in the interprofessional health team	277	3.72	0.54
107	IIIC1	Care Environment Management	Healthcare Systems/Organizations	Apply knowledge of teamwork to manage change and disseminate information at the systems level	260	3.72	0.55
14	IB2	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Apply concepts of communication skills including critical listening during assessment, intervention, evaluation, and education of patients, families, and the healthcare team	272	3.72	0.56
95	IIIA8	Care Environment Management	Team Coordination	Incorporate patient/family/interprofessional team input to design, coordinate, and evaluate plans of care	269	3.72	0.57
89	IIIA2	Care Environment Management	Team Coordination	Demonstrate effectiveness in group interactions, particularly in skills necessary to interact and collaborate with other members of the interprofessional team	274	3.75	0.55
91	IIIA4	Care Environment Management	Team Coordination	Establish and maintain effective working relationships within an interprofessional, multicultural team to make ethical decisions	276	3.76	0.56
19	IB7	Nursing Leadership	Interprofessional Communication and Collaboration Skills	Communicate effectively in a variety of written and spoken formats	279	3.76	0.51
2	IA2	Nursing Leadership	Horizontal Leadership	Apply strategies to guide the collaborative team to use clinical judgement to make safe patient care decisions	276	3.77	0.51

Order	Element	Domain	Subdomain	KSA	N	Mean	SD
94	IIIA7	Care Environment Management	Team Coordination	Promote a positive and healthy work environment and a culture of retention	276	3.78	0.54
33	IC10	Nursing Leadership	Healthcare Advocacy	Advocate for patients, particularly the most vulnerable	277	3.78	0.52
117	IIID5	Care Environment Management	Evidence-Based Practice	Use current evidence to improve patient care	266	3.78	0.53
12	IA12	Nursing Leadership	Horizontal Leadership	Demonstrate higher order critical thinking and problem solving skills	283	3.82	0.43

## Appendix M: Average Importance Ratings by Years of Experience

**Table M-1**

*Subgroup Analysis – Years of Experience*

Order	Element	Mean by Years of Experience				Mean Differences					
		0-5 (1) n=47	6-9 (2) n=58	10-19 (3) n=68	20+ (4) n=116	1 vs 2	1 vs 3	1 vs 4	2 vs 3	2 vs 4	3 vs 4
1	IA1	3.16	3.31	3.45	3.60	-0.15	-0.29	-0.44**	-0.14	-0.29	-0.15
6	IA6	3.41	3.56	3.73	3.77	-0.15	-0.32*	-0.36**	-0.17	-0.21	-0.04
7	IA7	3.24	3.43	3.67	3.61	-0.18	-0.42*	-0.37*	-0.24	-0.18	0.06
18	IB6	3.48	3.33	3.67	3.67	0.14	-0.19	-0.19	-0.34*	-0.33*	0.00
22	IB10	3.60	3.47	3.78	3.68	0.13	-0.18	-0.08	-0.31*	-0.22	0.09
23	IB11	3.56	3.57	3.85	3.72	-0.01	-0.30*	-0.17	-0.28*	-0.15	0.13
26	IC3	3.30	3.36	3.56	3.66	-0.06	-0.25	-0.36*	-0.19	-0.29	-0.10
34	ID1	3.16	3.60	3.61	3.65	-0.44*	-0.45*	-0.49**	-0.01	-0.05	-0.04
39	ID6	3.06	3.43	3.56	3.53	-0.37	-0.50*	-0.47*	-0.13	-0.10	0.03
45	IE6	3.17	3.45	3.48	3.55	-0.28	-0.31	-0.38*	-0.02	-0.10	-0.07
52	IIA7	3.05	3.35	3.54	3.47	-0.30	-0.49*	-0.42*	-0.19	-0.12	0.07
56	IIA11	3.55	3.41	3.72	3.71	0.14	-0.17	-0.16	-0.31	-0.30*	0.01
59	IIA14	3.64	3.27	3.49	3.64	0.37	0.15	0.00	-0.22	-0.37**	-0.14
63	IIB3	3.15	3.45	3.60	3.52	-0.30	-0.44*	-0.37*	-0.14	-0.07	0.07
76	IIC6	3.69	3.20	3.25	3.49	0.48*	0.44	0.20	-0.04	-0.29	-0.24
88	IIIA1	3.43	3.67	3.80	3.77	-0.25	-0.37*	-0.35*	-0.12	-0.10	0.03
90	IIIA3	3.25	3.53	3.66	3.52	-0.28	-0.41*	-0.27	-0.13	0.00	0.14
91	IIIA4	3.52	3.70	3.86	3.81	-0.18	-0.34*	-0.29*	-0.16	-0.11	0.05
92	IIIA5	3.41	3.59	3.78	3.72	-0.18	-0.37*	-0.31*	-0.20	-0.13	0.06

Order	Element	Mean by Years of Experience				Mean Differences					
		0-5 (1) n=47	6-9 (2) n=58	10-19 (3) n=68	20+ (4) n=116	1 vs 2	1 vs 3	1 vs 4	2 vs 3	2 vs 4	3 vs 4
110	IIIC4	3.14	3.39	3.56	3.59	-0.25	-0.42*	-0.45*	-0.17	-0.20	-0.03
113	IIID1	3.45	3.62	3.70	3.77	-0.17	-0.25	-0.31*	-0.08	-0.15	-0.07
126	IIIF3	3.10	3.34	3.56	3.41	-0.24	-0.46*	-0.31	-0.22	-0.07	0.15
128	IIIF5	3.18	3.37	3.67	3.62	-0.19	-0.48**	-0.44*	-0.30	-0.25	0.05
134	IIIF11	3.32	3.66	3.70	3.65	-0.34	-0.38*	-0.32	-0.04	0.01	0.05
136	IIIF13	3.06	3.49	3.55	3.52	-0.43*	-0.48*	-0.45*	-0.06	-0.03	0.03
141	IIIH2	3.61	3.45	3.67	3.77	0.15	-0.07	-0.16	-0.22	-0.32*	-0.10
144	IIIH5	3.38	3.30	3.70	3.57	0.08	-0.32	-0.18	-0.40*	-0.27	0.13
2	IA2	3.64	3.74	3.77	3.84	-0.09	-0.13	-0.20	-0.03	-0.10	-0.07
3	IA3	3.21	3.37	3.53	3.46	-0.16	-0.32	-0.25	-0.16	-0.09	0.07
4	IA4	3.38	3.33	3.50	3.51	0.05	-0.12	-0.13	-0.17	-0.18	-0.01
5	IA5	3.37	3.51	3.58	3.69	-0.14	-0.22	-0.32	-0.07	-0.18	-0.10
8	IA8	3.35	3.38	3.62	3.56	-0.02	-0.27	-0.21	-0.24	-0.19	0.05
9	IA9	3.73	3.68	3.78	3.71	0.05	-0.05	0.02	-0.10	-0.03	0.07
10	IA10	3.38	3.42	3.70	3.61	-0.03	-0.31	-0.23	-0.28	-0.19	0.09
11	IA11	3.73	3.67	3.79	3.69	0.05	-0.07	0.04	-0.12	-0.02	0.10
12	IA12	3.70	3.74	3.84	3.88	-0.04	-0.13	-0.18	-0.10	-0.14	-0.05
13	IB1	3.28	3.35	3.48	3.56	-0.08	-0.20	-0.28	-0.13	-0.21	-0.08
14	IB2	3.56	3.61	3.78	3.81	-0.05	-0.22	-0.25	-0.18	-0.20	-0.02
15	IB3	3.26	3.25	3.45	3.54	0.01	-0.19	-0.27	-0.20	-0.28	-0.08
16	IB4	3.28	3.21	3.51	3.49	0.06	-0.23	-0.21	-0.29	-0.27	0.02
17	IB5	3.58	3.70	3.69	3.80	-0.12	-0.11	-0.22	0.01	-0.10	-0.11
19	IB7	3.67	3.70	3.82	3.80	-0.03	-0.15	-0.14	-0.12	-0.11	0.02

Order	Element	Mean by Years of Experience				Mean Differences					
		0-5 (1) n=47	6-9 (2) n=58	10-19 (3) n=68	20+ (4) n=116	1 vs 2	1 vs 3	1 vs 4	2 vs 3	2 vs 4	3 vs 4
20	IB8	3.67	3.59	3.76	3.74	0.08	-0.09	-0.08	-0.17	-0.16	0.01
21	IB9	3.29	3.23	3.58	3.50	0.06	-0.29	-0.21	-0.34	-0.26	0.08
24	IC1	2.86	3.04	2.97	3.13	-0.18	-0.11	-0.27	0.07	-0.09	-0.17
25	IC2	3.05	3.20	3.25	3.31	-0.15	-0.20	-0.26	-0.05	-0.12	-0.07
27	IC4	3.52	3.49	3.75	3.65	0.03	-0.23	-0.12	-0.26	-0.16	0.11
28	IC5	3.21	3.31	3.42	3.52	-0.10	-0.21	-0.32	-0.11	-0.22	-0.11
29	IC6	3.33	3.51	3.55	3.54	-0.18	-0.23	-0.21	-0.04	-0.03	0.01
30	IC7	3.00	3.10	3.23	3.30	-0.10	-0.23	-0.30	-0.13	-0.20	-0.07
31	IC8	3.37	3.40	3.51	3.54	-0.03	-0.14	-0.18	-0.11	-0.14	-0.03
32	IC9	3.33	3.61	3.61	3.58	-0.27	-0.28	-0.25	0.00	0.03	0.03
33	IC10	3.72	3.69	3.79	3.84	0.03	-0.07	-0.12	-0.10	-0.15	-0.05
35	ID2	3.46	3.67	3.70	3.62	-0.21	-0.24	-0.16	-0.04	0.05	0.08
36	ID3	3.53	3.72	3.70	3.72	-0.19	-0.18	-0.20	0.02	-0.01	-0.02
37	ID4	3.49	3.62	3.56	3.71	-0.13	-0.08	-0.22	0.06	-0.09	-0.14
38	ID5	3.15	3.38	3.48	3.49	-0.22	-0.33	-0.33	-0.11	-0.11	0.00
40	IE1	3.51	3.56	3.71	3.68	-0.05	-0.20	-0.16	-0.15	-0.12	0.04
41	IE2	3.55	3.53	3.64	3.63	0.02	-0.09	-0.08	-0.10	-0.09	0.01
42	IE3	3.37	3.30	3.56	3.53	0.07	-0.19	-0.16	-0.26	-0.23	0.03
43	IE4	3.61	3.42	3.54	3.65	0.18	0.07	-0.04	-0.12	-0.23	-0.11
44	IE5	3.44	3.63	3.63	3.63	-0.19	-0.19	-0.19	0.00	0.00	0.00
46	IIA1	3.48	3.49	3.61	3.74	-0.01	-0.13	-0.26	-0.12	-0.25	-0.13
47	IIA2	3.28	3.36	3.48	3.57	-0.08	-0.20	-0.29	-0.12	-0.21	-0.09
48	IIA3	3.75	3.61	3.74	3.75	0.14	0.01	0.00	-0.13	-0.14	-0.01

Order	Element	Mean by Years of Experience				Mean Differences					
		0-5 (1) n=47	6-9 (2) n=58	10-19 (3) n=68	20+ (4) n=116	1 vs 2	1 vs 3	1 vs 4	2 vs 3	2 vs 4	3 vs 4
49	IIA4	3.55	3.47	3.70	3.69	0.08	-0.16	-0.14	-0.23	-0.22	0.01
50	IIA5	3.61	3.61	3.78	3.67	0.00	-0.17	-0.06	-0.17	-0.06	0.10
51	IIA6	3.40	3.49	3.60	3.61	-0.09	-0.20	-0.21	-0.11	-0.12	-0.01
53	IIA8	3.32	3.31	3.49	3.50	0.01	-0.17	-0.18	-0.18	-0.19	-0.01
54	IIA9	3.39	3.36	3.60	3.55	0.03	-0.21	-0.16	-0.24	-0.19	0.04
55	IIA10	3.39	3.33	3.65	3.63	0.06	-0.25	-0.23	-0.31	-0.29	0.02
57	IIA12	3.40	3.27	3.54	3.45	0.13	-0.14	-0.05	-0.27	-0.18	0.09
58	IIA13	3.32	3.42	3.54	3.63	-0.10	-0.21	-0.30	-0.12	-0.20	-0.09
60	IIA15	3.24	3.04	3.26	3.27	0.20	-0.03	-0.03	-0.22	-0.23	0.00
61	IIB1	3.17	3.56	3.57	3.53	-0.38	-0.40	-0.36	-0.01	0.02	0.03
62	IIB2	3.00	3.06	3.25	3.19	-0.06	-0.25	-0.19	-0.19	-0.13	0.06
64	IIB4	3.33	3.67	3.60	3.62	-0.34	-0.28	-0.30	0.07	0.05	-0.02
65	IIB5	3.43	3.31	3.65	3.50	0.12	-0.22	-0.07	-0.34	-0.19	0.15
66	IIB6	3.47	3.60	3.70	3.69	-0.13	-0.22	-0.21	-0.10	-0.09	0.01
67	IIB7	3.25	3.51	3.52	3.56	-0.26	-0.27	-0.31	-0.01	-0.05	-0.03
68	IIB8	3.47	3.55	3.61	3.61	-0.07	-0.14	-0.14	-0.07	-0.06	0.00
69	IIB9	3.53	3.58	3.66	3.72	-0.06	-0.14	-0.19	-0.08	-0.14	-0.06
70	IIB10	3.34	3.24	3.46	3.48	0.10	-0.12	-0.13	-0.22	-0.23	-0.02
71	IIC1	3.55	3.63	3.69	3.68	-0.07	-0.13	-0.13	-0.06	-0.06	0.00
72	IIC2	3.51	3.51	3.66	3.67	0.00	-0.15	-0.16	-0.15	-0.16	-0.01
73	IIC3	3.50	3.42	3.63	3.62	0.08	-0.13	-0.12	-0.21	-0.20	0.01
74	IIC4	3.40	3.38	3.45	3.53	0.02	-0.05	-0.13	-0.07	-0.15	-0.08
75	IIC5	3.17	3.13	3.19	3.28	0.04	-0.02	-0.11	-0.06	-0.15	-0.09

Order	Element	Mean by Years of Experience				Mean Differences					
		0-5 (1) n=47	6-9 (2) n=58	10-19 (3) n=68	20+ (4) n=116	1 vs 2	1 vs 3	1 vs 4	2 vs 3	2 vs 4	3 vs 4
77	IIC7	3.42	3.23	3.28	3.36	0.20	0.14	0.06	-0.05	-0.13	-0.08
78	IIC8	3.38	3.14	3.37	3.45	0.24	0.01	-0.07	-0.23	-0.31	-0.08
79	IIC9	3.31	3.27	3.39	3.41	0.05	-0.08	-0.09	-0.13	-0.14	-0.01
80	IID1	3.03	3.43	3.42	3.38	-0.40	-0.39	-0.34	0.01	0.06	0.04
81	IID2	3.41	3.38	3.37	3.45	0.03	0.04	-0.04	0.01	-0.07	-0.08
82	IID3	3.21	3.22	3.10	3.17	-0.01	0.10	0.03	0.12	0.05	-0.07
83	IID4	3.31	3.18	3.13	3.28	0.14	0.19	0.03	0.05	-0.11	-0.15
84	IID5	3.27	3.34	3.28	3.38	-0.07	-0.01	-0.11	0.06	-0.04	-0.10
85	IID6	3.06	3.12	3.04	3.37	-0.06	0.03	-0.31	0.08	-0.25	-0.34
86	IID7	3.19	3.46	3.27	3.41	-0.27	-0.08	-0.22	0.19	0.05	-0.14
87	IID8	3.17	3.12	3.15	3.22	0.04	0.02	-0.06	-0.03	-0.10	-0.07
89	IIIA2	3.61	3.71	3.83	3.78	-0.10	-0.22	-0.17	-0.11	-0.06	0.05
93	IIIA6	3.46	3.48	3.70	3.56	-0.02	-0.24	-0.10	-0.22	-0.08	0.14
94	IIIA7	3.68	3.74	3.77	3.83	-0.05	-0.09	-0.15	-0.04	-0.09	-0.06
95	IIIA8	3.68	3.63	3.80	3.75	0.05	-0.12	-0.06	-0.17	-0.11	0.05
96	IIIB1	3.40	3.42	3.63	3.60	-0.02	-0.23	-0.20	-0.21	-0.19	0.03
97	IIIB2	3.46	3.39	3.49	3.59	0.06	-0.03	-0.13	-0.10	-0.19	-0.09
98	IIIB3	3.13	3.15	3.25	3.31	-0.02	-0.11	-0.17	-0.09	-0.15	-0.06
99	IIIB4	3.36	3.32	3.32	3.39	0.04	0.04	-0.03	0.00	-0.07	-0.07
100	IIIB5	3.07	3.10	3.27	3.31	-0.03	-0.20	-0.24	-0.17	-0.21	-0.04
101	IIIB6	3.41	3.34	3.55	3.62	0.07	-0.14	-0.20	-0.21	-0.28	-0.06
102	IIIB7	3.35	3.37	3.33	3.50	-0.03	0.01	-0.15	0.04	-0.13	-0.17
103	IIIB8	3.28	3.38	3.43	3.46	-0.10	-0.15	-0.18	-0.05	-0.08	-0.03

Order	Element	Mean by Years of Experience				Mean Differences					
		0-5 (1) n=47	6-9 (2) n=58	10-19 (3) n=68	20+ (4) n=116	1 vs 2	1 vs 3	1 vs 4	2 vs 3	2 vs 4	3 vs 4
104	IIIB9	3.38	3.30	3.23	3.35	0.08	0.16	0.04	0.07	-0.05	-0.12
105	IIIB10	3.14	3.29	3.26	3.47	-0.15	-0.13	-0.33	0.02	-0.18	-0.20
106	IIIB11	3.00	3.24	3.31	3.41	-0.24	-0.31	-0.41	-0.07	-0.16	-0.09
107	IIIC1	3.64	3.68	3.70	3.79	-0.05	-0.06	-0.15	-0.01	-0.10	-0.09
108	IIIC2	3.59	3.73	3.65	3.72	-0.14	-0.06	-0.13	0.08	0.01	-0.07
109	IIIC3	3.43	3.38	3.54	3.47	0.05	-0.11	-0.04	-0.16	-0.09	0.07
111	IIIC5	3.32	3.44	3.40	3.51	-0.12	-0.08	-0.19	0.04	-0.07	-0.11
112	IIIC6	3.17	3.31	3.26	3.43	-0.15	-0.09	-0.26	0.06	-0.12	-0.17
114	IIID2	3.62	3.61	3.67	3.76	0.01	-0.05	-0.14	-0.06	-0.15	-0.09
115	IIID3	3.41	3.75	3.60	3.70	-0.35	-0.19	-0.30	0.16	0.05	-0.11
116	IIID4	3.55	3.67	3.67	3.73	-0.13	-0.12	-0.18	0.01	-0.05	-0.06
117	IIID5	3.61	3.71	3.80	3.87	-0.10	-0.19	-0.26	-0.09	-0.16	-0.07
118	IIID6	3.48	3.67	3.68	3.76	-0.18	-0.20	-0.28	-0.02	-0.10	-0.08
119	IIIE1	3.65	3.68	3.70	3.78	-0.03	-0.05	-0.14	-0.02	-0.11	-0.09
120	IIIE2	3.53	3.60	3.81	3.69	-0.07	-0.28	-0.15	-0.21	-0.09	0.12
121	IIIE3	3.56	3.74	3.72	3.74	-0.17	-0.16	-0.18	0.01	-0.01	-0.02
122	IIIE4	3.56	3.65	3.69	3.69	-0.09	-0.13	-0.13	-0.04	-0.03	0.00
123	IIIE5	3.68	3.60	3.71	3.76	0.08	-0.03	-0.08	-0.11	-0.16	-0.05
124	IIIF1	3.36	3.53	3.55	3.57	-0.16	-0.18	-0.20	-0.02	-0.04	-0.02
125	IIIF2	3.07	3.35	3.49	3.42	-0.28	-0.43	-0.35	-0.15	-0.07	0.07
127	IIIF4	3.34	3.31	3.58	3.48	0.04	-0.24	-0.14	-0.27	-0.18	0.10
129	IIIF6	3.39	3.33	3.61	3.53	0.05	-0.23	-0.14	-0.28	-0.19	0.09
130	IIIF7	3.29	3.40	3.65	3.52	-0.11	-0.35	-0.23	-0.25	-0.13	0.12

Order	Element	Mean by Years of Experience				Mean Differences					
		0-5 (1) n=47	6-9 (2) n=58	10-19 (3) n=68	20+ (4) n=116	1 vs 2	1 vs 3	1 vs 4	2 vs 3	2 vs 4	3 vs 4
131	IIIF8	3.45	3.49	3.61	3.57	-0.04	-0.16	-0.12	-0.12	-0.08	0.04
132	IIIF9	3.15	3.36	3.49	3.38	-0.21	-0.34	-0.23	-0.13	-0.02	0.11
133	IIIF10	3.42	3.42	3.52	3.59	0.00	-0.10	-0.17	-0.10	-0.17	-0.07
135	IIIF12	3.39	3.40	3.55	3.50	-0.01	-0.16	-0.11	-0.15	-0.10	0.05
137	IIIF14	3.52	3.42	3.57	3.63	0.10	-0.06	-0.11	-0.16	-0.21	-0.05
138	IIIG1	3.57	3.58	3.66	3.67	-0.01	-0.09	-0.10	-0.08	-0.09	-0.01
139	IIIG2	3.62	3.63	3.57	3.70	-0.01	0.05	-0.08	0.06	-0.07	-0.13
140	IIIH1	3.62	3.49	3.68	3.73	0.12	-0.06	-0.11	-0.19	-0.24	-0.05
142	IIIH3	3.54	3.50	3.65	3.71	0.04	-0.11	-0.17	-0.15	-0.21	-0.06
143	IIIH4	3.57	3.49	3.57	3.73	0.08	0.00	-0.16	-0.08	-0.24	-0.15

## Appendix N: Average Importance Ratings by Practice Setting

**Table N-1**

*Subgroup Analysis – Practice Setting*

Order	Element	Mean Importance by Practice Setting			Mean Differences		
		Acute Care Inpatient (A) n=178	Outpatient Clinic or Surgery Center (O) n=33	School of Nursing (S) n=24	A vs. O	A vs. S	O vs. S
5	IA5	3.61	3.26	3.81	0.36*	-0.20	-0.55*
13	IB1	3.45	3.26	3.71	0.19	-0.26	-0.45*
23	IB11	3.73	3.47	3.83	0.26*	-0.09	-0.36*
24	IC1	3.03	2.64	3.29	0.39	-0.26	-0.65*
25	IC2	3.21	2.96	3.52	0.25	-0.31	-0.56*
28	IC5	3.41	3.11	3.71	0.30	-0.30	-0.60*
31	IC8	3.49	3.26	3.71	0.23	-0.22	-0.45*
32	IC9	3.63	3.17	3.70	0.46**	-0.06	-0.53*
34	ID1	3.60	3.25	3.70	0.35*	-0.10	-0.45
35	ID2	3.67	3.34	3.83	0.32*	-0.17	-0.49*
37	ID4	3.67	3.14	3.83	0.53**	-0.16	-0.68**
38	ID5	3.46	3.00	3.64	0.46*	-0.17	-0.64*
39	ID6	3.50	2.96	3.76	0.55**	-0.26	-0.81**
63	IIB3	3.53	3.16	3.57	0.37*	-0.03	-0.40
64	IIB4	3.64	3.23	3.70	0.42**	-0.05	-0.47*
84	IID5	3.31	3.00	3.50	0.31	-0.19	-0.50*
86	IID7	3.36	3.00	3.57	0.36	-0.21	-0.57*
96	IIIB1	3.53	3.29	3.85	0.25	-0.32	-0.56*

Order	Element	Mean Importance by Practice Setting			Mean Differences		
		Acute Care Inpatient (A) n=178	Outpatient Clinic or Surgery Center (O) n=33	School of Nursing (S) n=24	A vs. O	A vs. S	O vs. S
98	IIIB3	3.26	2.72	3.59	0.54**	-0.34	-0.87**
99	IIIB4	3.35	3.04	3.67	0.31	-0.32	-0.63*
101	IIIB6	3.53	3.18	3.70	0.35*	-0.16	-0.52*
102	IIIB7	3.40	3.17	3.73	0.23	-0.33	-0.56*
103	IIIB8	3.44	3.16	3.73	0.28	-0.29	-0.57*
106	IIIB11	3.33	2.95	3.64	0.37	-0.31	-0.68*
110	IIIC4	3.51	3.25	3.73	0.26	-0.22	-0.48*
114	IIID2	3.70	3.41	3.86	0.28	-0.17	-0.45*
119	IIIE1	3.73	3.54	3.90	0.20	-0.17	-0.36*
121	IIIE3	3.75	3.31	3.95	0.45**	-0.20	-0.65**
122	IIIE4	3.70	3.33	3.82	0.37*	-0.12	-0.48*
1	IA1	3.40	3.33	3.71	0.07	-0.30	-0.38
2	IA2	3.76	3.73	3.86	0.03	-0.10	-0.13
3	IA3	3.44	3.38	3.26	0.06	0.18	0.12
4	IA4	3.46	3.20	3.55	0.26	-0.09	-0.35
6	IA6	3.65	3.93	3.67	-0.28	-0.02	0.26
7	IA7	3.50	3.48	3.55	0.02	-0.05	-0.07
8	IA8	3.52	3.29	3.60	0.22	-0.08	-0.31
9	IA9	3.73	3.59	3.86	0.13	-0.13	-0.26
10	IA10	3.54	3.50	3.76	0.04	-0.22	-0.26
11	IA11	3.75	3.56	3.65	0.19	0.10	-0.09
12	IA12	3.79	3.75	3.92	0.04	-0.13	-0.17

Order	Element	Mean Importance by Practice Setting			Mean Differences		
		Acute Care Inpatient (A) n=178	Outpatient Clinic or Surgery Center (O) n=33	School of Nursing (S) n=24	A vs. O	A vs. S	O vs. S
14	IB2	3.71	3.68	3.73	0.03	-0.02	-0.05
15	IB3	3.37	3.43	3.65	-0.06	-0.28	-0.22
16	IB4	3.39	3.44	3.43	-0.06	-0.05	0.01
17	IB5	3.70	3.75	3.81	-0.05	-0.11	-0.06
18	IB6	3.55	3.42	3.59	0.13	-0.04	-0.17
19	IB7	3.76	3.71	3.79	0.05	-0.03	-0.08
20	IB8	3.72	3.52	3.79	0.21	-0.07	-0.28
21	IB9	3.42	3.48	3.48	-0.06	-0.06	0.01
22	IB10	3.66	3.56	3.68	0.10	-0.02	-0.12
26	IC3	3.50	3.43	3.61	0.07	-0.11	-0.18
27	IC4	3.59	3.68	3.64	-0.09	-0.04	0.04
29	IC6	3.56	3.24	3.55	0.32	0.01	-0.30
30	IC7	3.24	2.92	3.26	0.33	-0.02	-0.34
33	IC10	3.80	3.67	3.67	0.14	0.14	0.00
36	ID3	3.74	3.61	3.77	0.13	-0.03	-0.16
40	IE1	3.65	3.48	3.70	0.16	-0.05	-0.22
41	IE2	3.64	3.40	3.62	0.24	0.02	-0.22
42	IE3	3.51	3.17	3.68	0.35	-0.17	-0.52
43	IE4	3.55	3.61	3.55	-0.06	0.00	0.06
44	IE5	3.59	3.55	3.50	0.04	0.09	0.05
45	IE6	3.53	3.28	3.57	0.25	-0.05	-0.30
46	IIA1	3.62	3.43	3.73	0.18	-0.11	-0.29

Order	Element	Mean Importance by Practice Setting			Mean Differences		
		Acute Care Inpatient (A) n=178	Outpatient Clinic or Surgery Center (O) n=33	School of Nursing (S) n=24	A vs. O	A vs. S	O vs. S
47	IIA2	3.43	3.42	3.68	0.00	-0.26	-0.26
48	IIA3	3.70	3.65	3.77	0.05	-0.07	-0.13
49	IIA4	3.63	3.59	3.82	0.04	-0.19	-0.23
50	IIA5	3.63	3.68	3.91	-0.05	-0.28	-0.23
51	IIA6	3.58	3.31	3.77	0.27	-0.19	-0.46
52	IIA7	3.41	3.27	3.61	0.14	-0.20	-0.34
53	IIA8	3.40	3.36	3.65	0.04	-0.26	-0.30
54	IIA9	3.49	3.52	3.50	-0.02	-0.01	0.02
55	IIA10	3.49	3.61	3.64	-0.12	-0.15	-0.03
56	IIA11	3.61	3.63	3.59	-0.02	0.02	0.04
57	IIA12	3.41	3.33	3.59	0.08	-0.18	-0.26
58	IIA13	3.51	3.33	3.82	0.17	-0.31	-0.48
59	IIA14	3.49	3.45	3.64	0.04	-0.14	-0.18
60	IIA15	3.18	3.04	3.57	0.14	-0.39	-0.54
61	IIB1	3.57	3.29	3.55	0.28	0.02	-0.26
62	IIB2	3.15	3.00	3.24	0.15	-0.09	-0.24
65	IIB5	3.51	3.52	3.50	-0.01	0.01	0.02
66	IIB6	3.66	3.50	3.61	0.16	0.05	-0.11
67	IIB7	3.52	3.34	3.50	0.17	0.02	-0.16
68	IIB8	3.60	3.32	3.71	0.28	-0.11	-0.39
69	IIB9	3.66	3.60	3.64	0.06	0.02	-0.04
70	IIB10	3.40	3.34	3.27	0.06	0.13	0.07

Order	Element	Mean Importance by Practice Setting			Mean Differences		
		Acute Care Inpatient (A) n=178	Outpatient Clinic or Surgery Center (O) n=33	School of Nursing (S) n=24	A vs. O	A vs. S	O vs. S
71	IIC1	3.67	3.48	3.86	0.19	-0.18	-0.37
72	IIC2	3.62	3.45	3.75	0.17	-0.13	-0.30
73	IIC3	3.55	3.50	3.62	0.05	-0.07	-0.12
74	IIC4	3.40	3.40	3.70	0.00	-0.30	-0.30
75	IIC5	3.21	3.17	3.19	0.04	0.02	-0.02
76	IIC6	3.38	3.35	3.60	0.03	-0.22	-0.25
77	IIC7	3.33	3.30	3.35	0.03	-0.02	-0.05
78	IIC8	3.39	3.33	3.41	0.05	-0.02	-0.08
79	IIC9	3.37	3.21	3.48	0.15	-0.11	-0.26
80	IID1	3.37	3.15	3.43	0.22	-0.07	-0.29
81	IID2	3.35	3.38	3.65	-0.04	-0.30	-0.27
82	IID3	3.16	3.04	3.00	0.11	0.16	0.04
83	IID4	3.17	3.13	3.39	0.04	-0.22	-0.27
85	IID6	3.18	2.88	3.33	0.30	-0.15	-0.45
87	IID8	3.09	3.23	3.22	-0.15	-0.13	0.01
88	IIIA1	3.71	3.66	3.78	0.06	-0.07	-0.13
89	IIIA2	3.75	3.63	3.79	0.12	-0.04	-0.16
90	IIIA3	3.53	3.45	3.50	0.08	0.03	-0.05
91	IIIA4	3.77	3.67	3.79	0.10	-0.02	-0.13
92	IIIA5	3.66	3.62	3.78	0.04	-0.12	-0.16
93	IIIA6	3.57	3.59	3.46	-0.01	0.11	0.13
94	IIIA7	3.77	3.70	3.79	0.07	-0.02	-0.09

Order	Element	Mean Importance by Practice Setting			Mean Differences		
		Acute Care Inpatient (A) n=178	Outpatient Clinic or Surgery Center (O) n=33	School of Nursing (S) n=24	A vs. O	A vs. S	O vs. S
95	IIIA8	3.74	3.62	3.73	0.12	0.01	-0.11
97	IIIB2	3.47	3.31	3.71	0.16	-0.24	-0.40
100	IIIB5	3.24	2.92	3.35	0.32	-0.11	-0.43
104	IIIB9	3.28	3.17	3.67	0.11	-0.38	-0.49
105	IIIB10	3.28	3.22	3.55	0.06	-0.26	-0.33
107	IIIC1	3.72	3.66	3.87	0.07	-0.15	-0.21
108	IIIC2	3.71	3.57	3.74	0.13	-0.03	-0.17
109	IIIC3	3.47	3.37	3.62	0.10	-0.15	-0.25
111	IIIC5	3.49	3.15	3.55	0.34	-0.06	-0.40
112	IIIC6	3.33	3.04	3.55	0.29	-0.22	-0.51
113	IIID1	3.70	3.48	3.76	0.22	-0.06	-0.28
115	IIID3	3.69	3.39	3.73	0.30	-0.04	-0.33
116	IIID4	3.68	3.44	3.82	0.23	-0.14	-0.37
117	IIID5	3.78	3.62	3.91	0.16	-0.13	-0.29
118	IIID6	3.69	3.48	3.81	0.21	-0.12	-0.33
120	IIIE2	3.71	3.50	3.86	0.21	-0.16	-0.36
123	IIIE5	3.72	3.50	3.86	0.22	-0.14	-0.36
124	IIIF1	3.54	3.26	3.68	0.29	-0.14	-0.42
125	IIIF2	3.39	3.23	3.52	0.16	-0.13	-0.29
126	IIIF3	3.45	3.08	3.36	0.37	0.08	-0.28
127	IIIF4	3.45	3.31	3.55	0.14	-0.10	-0.24
128	IIIF5	3.50	3.34	3.70	0.16	-0.20	-0.35

Order	Element	Mean Importance by Practice Setting			Mean Differences		
		Acute Care Inpatient (A) n=178	Outpatient Clinic or Surgery Center (O) n=33	School of Nursing (S) n=24	A vs. O	A vs. S	O vs. S
129	III F6	3.50	3.28	3.55	0.23	-0.04	-0.27
130	III F7	3.54	3.32	3.50	0.22	0.04	-0.18
131	III F8	3.56	3.38	3.67	0.18	-0.10	-0.29
132	III F9	3.35	3.30	3.68	0.05	-0.33	-0.39
133	III F10	3.51	3.39	3.64	0.12	-0.13	-0.24
134	III F11	3.63	3.46	3.81	0.16	-0.18	-0.35
135	III F12	3.47	3.36	3.59	0.11	-0.12	-0.23
136	III F13	3.44	3.32	3.73	0.11	-0.29	-0.41
137	III F14	3.54	3.46	3.65	0.07	-0.12	-0.19
138	III G1	3.57	3.69	3.86	-0.13	-0.29	-0.16
139	III G2	3.67	3.41	3.73	0.26	-0.06	-0.32
140	III H1	3.61	3.69	3.64	-0.08	-0.02	0.05
141	III H2	3.64	3.59	3.59	0.05	0.05	0.00
142	III H3	3.57	3.54	3.82	0.03	-0.25	-0.28
143	III H4	3.57	3.52	3.78	0.06	-0.21	-0.26
144	III H5	3.55	3.20	3.50	0.35	0.05	-0.30

## Appendix O: Average Importance Ratings by Region of Practice

**Table O-1**

*Subgroup Analysis – Geographic Region of Practice*

Order	Element	Mean				Differences					
		Midwest (M) n=74	Northeast (N) n=42	South (S) n=116	West (W) n=51	M vs. N	M vs. S	M vs. W	N vs. S	N vs. W	S vs. W
9	IA9	3.70	3.93	3.65	3.72	-0.23	0.04	-0.02	0.27*	0.21	-0.07
11	IA11	3.61	3.93	3.69	3.78	-0.31*	-0.08	-0.17	0.24	0.15	-0.09
40	IE1	3.68	3.80	3.66	3.36	-0.12	0.02	0.31	0.14	0.44*	0.30
41	IE2	3.69	3.78	3.56	3.37	-0.09	0.13	0.32	0.22	0.41*	0.19
61	IIB1	3.59	3.64	3.55	3.11	-0.04	0.04	0.49**	0.09	0.53**	0.44**
64	IIB4	3.59	3.76	3.61	3.31	-0.17	-0.02	0.28	0.15	0.45*	0.30
65	IIB5	3.58	3.54	3.50	3.19	0.04	0.08	0.39*	0.05	0.35	0.31
68	IIB8	3.67	3.71	3.56	3.30	-0.04	0.11	0.37*	0.15	0.41*	0.26
70	IIB10	3.49	3.44	3.51	3.00	0.05	-0.02	0.49**	-0.08	0.44	0.51**
73	IIC3	3.61	3.67	3.63	3.25	-0.05	-0.02	0.36*	0.04	0.42*	0.38*
120	IIIE2	3.67	3.88	3.71	3.46	-0.22	-0.04	0.21	0.18	0.42*	0.25
1	IA1	3.46	3.51	3.39	3.45	-0.06	0.07	0.01	0.12	0.06	-0.06
2	IA2	3.77	3.88	3.78	3.66	-0.11	-0.01	0.11	0.10	0.22	0.12
3	IA3	3.48	3.41	3.49	3.20	0.07	-0.01	0.28	-0.08	0.21	0.29
4	IA4	3.53	3.59	3.41	3.32	-0.06	0.12	0.21	0.18	0.27	0.09
5	IA5	3.56	3.80	3.52	3.48	-0.24	0.03	0.08	0.28	0.32	0.04
6	IA6	3.67	3.75	3.63	3.64	-0.08	0.04	0.03	0.12	0.11	-0.01
7	IA7	3.57	3.59	3.53	3.45	-0.02	0.04	0.12	0.06	0.14	0.08
8	IA8	3.47	3.69	3.49	3.40	-0.22	-0.01	0.08	0.21	0.30	0.09

Order	Element	Mean				Differences					
		Midwest (M) n=74	Northeast (N) n=42	South (S) n=116	West (W) n=51	M vs. N	M vs. S	M vs. W	N vs. S	N vs. W	S vs. W
10	IA10	3.51	3.68	3.63	3.38	-0.17	-0.11	0.13	0.06	0.30	0.25
12	IA12	3.79	3.93	3.79	3.80	-0.14	0.00	-0.01	0.14	0.13	-0.01
13	IB1	3.37	3.61	3.46	3.38	-0.24	-0.09	-0.01	0.15	0.23	0.08
14	IB2	3.70	3.88	3.76	3.57	-0.18	-0.06	0.13	0.12	0.30	0.19
15	IB3	3.35	3.45	3.51	3.30	-0.10	-0.16	0.05	-0.06	0.15	0.21
16	IB4	3.41	3.48	3.43	3.27	-0.07	-0.02	0.14	0.05	0.21	0.16
17	IB5	3.76	3.87	3.65	3.68	-0.11	0.10	0.08	0.22	0.19	-0.03
18	IB6	3.67	3.54	3.56	3.42	0.13	0.11	0.25	-0.02	0.12	0.14
19	IB7	3.74	3.88	3.74	3.76	-0.14	0.00	-0.01	0.13	0.12	-0.01
20	IB8	3.76	3.83	3.67	3.56	-0.07	0.09	0.20	0.16	0.27	0.11
21	IB9	3.39	3.52	3.43	3.39	-0.13	-0.04	0.00	0.10	0.14	0.04
22	IB10	3.73	3.62	3.65	3.52	0.11	0.07	0.21	-0.04	0.10	0.13
23	IB11	3.70	3.81	3.71	3.50	-0.11	-0.01	0.20	0.10	0.31	0.21
24	IC1	2.84	3.30	2.98	3.18	-0.46	-0.14	-0.33	0.32	0.13	-0.20
25	IC2	3.15	3.35	3.20	3.28	-0.20	-0.05	-0.12	0.15	0.07	-0.07
26	IC3	3.46	3.51	3.52	3.54	-0.05	-0.06	-0.08	-0.01	-0.03	-0.02
27	IC4	3.57	3.70	3.68	3.51	-0.13	-0.11	0.06	0.02	0.19	0.17
28	IC5	3.40	3.56	3.38	3.31	-0.16	0.02	0.09	0.18	0.24	0.07
29	IC6	3.47	3.63	3.50	3.43	-0.15	-0.02	0.04	0.13	0.20	0.07
30	IC7	3.12	3.26	3.23	3.16	-0.14	-0.11	-0.03	0.03	0.11	0.08
31	IC8	3.53	3.56	3.46	3.37	-0.04	0.07	0.16	0.10	0.20	0.09
32	IC9	3.52	3.73	3.50	3.54	-0.20	0.03	-0.02	0.23	0.19	-0.04
33	IC10	3.74	3.79	3.83	3.73	-0.05	-0.09	0.00	-0.04	0.05	0.09

Order	Element	Mean				Differences					
		Midwest (M) n=74	Northeast (N) n=42	South (S) n=116	West (W) n=51	M vs. N	M vs. S	M vs. W	N vs. S	N vs. W	S vs. W
34	ID1	3.57	3.54	3.56	3.52	0.02	0.01	0.04	-0.02	0.02	0.04
35	ID2	3.62	3.62	3.62	3.66	0.00	0.01	-0.04	0.00	-0.04	-0.04
36	ID3	3.68	3.71	3.68	3.69	-0.03	0.01	-0.01	0.03	0.02	-0.01
37	ID4	3.65	3.79	3.59	3.51	-0.14	0.06	0.14	0.21	0.28	0.07
38	ID5	3.37	3.44	3.44	3.39	-0.06	-0.06	-0.02	0.00	0.05	0.05
39	ID6	3.42	3.52	3.52	3.26	-0.09	-0.10	0.17	-0.01	0.26	0.27
42	IE3	3.55	3.44	3.46	3.33	0.11	0.09	0.22	-0.03	0.11	0.14
43	IE4	3.65	3.62	3.59	3.35	0.03	0.06	0.30	0.03	0.27	0.24
44	IE5	3.61	3.73	3.60	3.45	-0.12	0.01	0.16	0.13	0.28	0.16
45	IE6	3.50	3.51	3.42	3.42	-0.01	0.08	0.08	0.09	0.09	0.00
46	IIA1	3.68	3.70	3.61	3.45	-0.02	0.07	0.22	0.09	0.25	0.15
47	IIA2	3.48	3.36	3.52	3.35	0.12	-0.04	0.13	-0.16	0.01	0.17
48	IIA3	3.75	3.79	3.75	3.54	-0.05	0.00	0.20	0.05	0.25	0.20
49	IIA4	3.64	3.62	3.68	3.47	0.03	-0.04	0.18	-0.06	0.15	0.21
50	IIA5	3.73	3.65	3.68	3.59	0.08	0.06	0.15	-0.03	0.06	0.09
51	IIA6	3.67	3.56	3.54	3.38	0.10	0.13	0.29	0.03	0.19	0.16
52	IIA7	3.46	3.40	3.38	3.34	0.06	0.08	0.12	0.02	0.06	0.04
53	IIA8	3.34	3.58	3.48	3.33	-0.24	-0.13	0.02	0.11	0.26	0.15
54	IIA9	3.53	3.62	3.53	3.32	-0.09	0.00	0.21	0.09	0.30	0.21
55	IIA10	3.54	3.54	3.58	3.38	0.00	-0.04	0.17	-0.04	0.16	0.21
56	IIA11	3.68	3.68	3.63	3.53	0.01	0.05	0.15	0.05	0.14	0.09
57	IIA12	3.49	3.44	3.44	3.28	0.04	0.05	0.20	0.01	0.16	0.16
58	IIA13	3.60	3.56	3.50	3.40	0.04	0.10	0.20	0.06	0.16	0.10

Order	Element	Mean				Differences					
		Midwest (M) n=74	Northeast (N) n=42	South (S) n=116	West (W) n=51	M vs. N	M vs. S	M vs. W	N vs. S	N vs. W	S vs. W
59	IIA14	3.45	3.67	3.51	3.53	-0.22	-0.07	-0.08	0.15	0.13	-0.02
60	IIA15	3.22	3.34	3.22	3.07	-0.12	0.00	0.16	0.13	0.28	0.15
62	IIB2	3.09	3.24	3.19	3.07	-0.15	-0.10	0.03	0.05	0.17	0.12
63	IIB3	3.56	3.48	3.50	3.23	0.07	0.05	0.32	-0.02	0.25	0.27
66	IIB6	3.71	3.75	3.64	3.42	-0.04	0.07	0.30	0.11	0.33	0.23
67	IIB7	3.51	3.61	3.51	3.32	-0.10	-0.01	0.19	0.10	0.29	0.20
69	IIB9	3.67	3.76	3.63	3.57	-0.09	0.04	0.10	0.13	0.19	0.05
71	IIC1	3.65	3.76	3.69	3.47	-0.10	-0.04	0.18	0.07	0.29	0.22
72	IIC2	3.68	3.59	3.63	3.45	0.09	0.05	0.23	-0.04	0.13	0.18
74	IIC4	3.56	3.51	3.45	3.26	0.04	0.11	0.30	0.06	0.26	0.19
75	IIC5	3.20	3.14	3.21	3.21	0.06	-0.01	0.00	-0.07	-0.06	0.01
76	IIC6	3.44	3.43	3.46	3.12	0.02	-0.01	0.32	-0.03	0.31	0.34
77	IIC7	3.38	3.21	3.38	3.15	0.18	0.00	0.24	-0.17	0.06	0.24
78	IIC8	3.45	3.28	3.40	3.16	0.16	0.04	0.28	-0.12	0.12	0.24
79	IIC9	3.46	3.30	3.37	3.19	0.16	0.09	0.27	-0.07	0.11	0.18
80	IID1	3.22	3.52	3.42	3.20	-0.30	-0.21	0.01	0.09	0.31	0.22
81	IID2	3.28	3.53	3.46	3.39	-0.25	-0.18	-0.10	0.06	0.14	0.08
82	IID3	3.03	3.04	3.29	3.23	0.00	-0.26	-0.19	-0.25	-0.19	0.06
83	IID4	3.12	3.20	3.27	3.28	-0.08	-0.14	-0.16	-0.07	-0.08	-0.01
84	IID5	3.30	3.34	3.38	3.24	-0.04	-0.07	0.06	-0.03	0.10	0.13
85	IID6	3.19	3.25	3.18	3.19	-0.06	0.01	0.00	0.07	0.06	-0.01
86	IID7	3.27	3.41	3.34	3.43	-0.14	-0.07	-0.16	0.07	-0.02	-0.08
87	IID8	3.11	3.09	3.24	3.18	0.02	-0.12	-0.07	-0.15	-0.09	0.05

Order	Element	Mean				Differences					
		Midwest (M) n=74	Northeast (N) n=42	South (S) n=116	West (W) n=51	M vs. N	M vs. S	M vs. W	N vs. S	N vs. W	S vs. W
88	IIIA1	3.76	3.86	3.64	3.66	-0.10	0.11	0.10	0.22	0.20	-0.02
89	IIIA2	3.78	3.87	3.72	3.71	-0.10	0.06	0.07	0.15	0.16	0.01
90	IIIA3	3.45	3.68	3.54	3.40	-0.23	-0.09	0.06	0.14	0.29	0.15
91	IIIA4	3.73	3.68	3.77	3.81	0.06	-0.04	-0.08	-0.10	-0.14	-0.04
92	IIIA5	3.71	3.66	3.62	3.68	0.05	0.09	0.03	0.04	-0.02	-0.06
93	IIIA6	3.52	3.66	3.59	3.53	-0.14	-0.07	-0.02	0.07	0.13	0.05
94	IIIA7	3.75	3.83	3.78	3.79	-0.08	-0.03	-0.04	0.04	0.03	-0.01
95	IIIA8	3.70	3.83	3.75	3.61	-0.12	-0.05	0.09	0.08	0.22	0.14
96	IIIB1	3.50	3.55	3.56	3.55	-0.05	-0.06	-0.05	-0.02	-0.01	0.01
97	IIIB2	3.53	3.47	3.57	3.33	0.06	-0.04	0.20	-0.10	0.14	0.25
98	IIIB3	3.22	3.04	3.33	3.14	0.19	-0.11	0.09	-0.30	-0.10	0.20
99	IIIB4	3.35	3.33	3.42	3.20	0.02	-0.07	0.16	-0.09	0.14	0.23
100	IIIB5	3.23	3.10	3.33	3.00	0.12	-0.11	0.23	-0.23	0.10	0.33
101	IIIB6	3.55	3.47	3.57	3.38	0.08	-0.02	0.17	-0.10	0.09	0.19
102	IIIB7	3.53	3.33	3.43	3.26	0.20	0.10	0.28	-0.10	0.08	0.17
103	IIIB8	3.46	3.22	3.49	3.27	0.24	-0.04	0.19	-0.27	-0.05	0.22
104	IIIB9	3.32	3.07	3.38	3.28	0.25	-0.06	0.04	-0.31	-0.21	0.10
105	IIIB10	3.34	3.37	3.37	3.18	-0.03	-0.03	0.16	0.00	0.18	0.18
106	IIIB11	3.32	3.30	3.38	3.08	0.02	-0.06	0.25	-0.08	0.22	0.30
107	IIIC1	3.70	3.81	3.70	3.72	-0.11	0.00	-0.02	0.11	0.09	-0.02
108	IIIC2	3.71	3.81	3.65	3.62	-0.09	0.06	0.09	0.16	0.18	0.03
109	IIIC3	3.44	3.41	3.54	3.38	0.02	-0.10	0.06	-0.12	0.04	0.16
110	IIIC4	3.55	3.54	3.48	3.33	0.01	0.07	0.21	0.06	0.21	0.14

Order	Element	Mean				Differences					
		Midwest (M) n=74	Northeast (N) n=42	South (S) n=116	West (W) n=51	M vs. N	M vs. S	M vs. W	N vs. S	N vs. W	S vs. W
111	IIIC5	3.51	3.41	3.41	3.43	0.10	0.10	0.08	0.00	-0.02	-0.02
112	IIIC6	3.40	3.16	3.37	3.26	0.24	0.03	0.13	-0.21	-0.10	0.11
113	IIID1	3.69	3.80	3.70	3.50	-0.11	-0.01	0.19	0.10	0.30	0.20
114	IIID2	3.69	3.79	3.67	3.61	-0.10	0.02	0.08	0.13	0.19	0.06
115	IIID3	3.72	3.70	3.64	3.51	0.02	0.08	0.21	0.06	0.19	0.13
116	IIID4	3.64	3.77	3.70	3.57	-0.13	-0.06	0.07	0.07	0.20	0.12
117	IIID5	3.82	3.81	3.73	3.79	0.01	0.09	0.04	0.08	0.02	-0.05
118	IIID6	3.71	3.86	3.65	3.58	-0.16	0.06	0.13	0.21	0.28	0.07
119	IIIE1	3.68	3.85	3.74	3.65	-0.17	-0.06	0.03	0.11	0.20	0.09
121	IIIE3	3.58	3.88	3.76	3.66	-0.30	-0.19	-0.08	0.12	0.22	0.10
122	IIIE4	3.61	3.78	3.64	3.69	-0.17	-0.03	-0.08	0.14	0.09	-0.05
123	IIIE5	3.75	3.91	3.64	3.60	-0.16	0.11	0.15	0.27	0.31	0.04
124	IIIF1	3.57	3.76	3.43	3.48	-0.19	0.14	0.09	0.33	0.28	-0.05
125	IIIF2	3.43	3.55	3.35	3.19	-0.12	0.08	0.24	0.19	0.36	0.16
126	IIIF3	3.45	3.42	3.35	3.34	0.03	0.10	0.11	0.07	0.08	0.01
127	IIIF4	3.47	3.52	3.44	3.37	-0.05	0.03	0.10	0.08	0.15	0.07
128	IIIF5	3.56	3.59	3.48	3.46	-0.03	0.08	0.10	0.11	0.13	0.02
129	IIIF6	3.58	3.57	3.46	3.32	0.02	0.13	0.27	0.11	0.25	0.14
130	IIIF7	3.56	3.59	3.50	3.30	-0.03	0.07	0.26	0.10	0.30	0.20
131	IIIF8	3.65	3.59	3.47	3.50	0.05	0.17	0.15	0.12	0.09	-0.03
132	IIIF9	3.36	3.57	3.31	3.37	-0.21	0.05	-0.01	0.25	0.20	-0.05
133	IIIF10	3.55	3.65	3.51	3.33	-0.09	0.04	0.23	0.14	0.32	0.18
134	IIIF11	3.59	3.81	3.59	3.59	-0.22	0.01	0.00	0.22	0.22	0.00

Order	Element	Mean				Differences					
		Midwest (M) n=74	Northeast (N) n=42	South (S) n=116	West (W) n=51	M vs. N	M vs. S	M vs. W	N vs. S	N vs. W	S vs. W
135	IIIF12	3.55	3.47	3.48	3.33	0.08	0.07	0.21	-0.01	0.14	0.14
136	IIIF13	3.48	3.59	3.49	3.24	-0.11	0.00	0.25	0.11	0.35	0.25
137	IIIF14	3.58	3.66	3.56	3.37	-0.07	0.03	0.22	0.10	0.29	0.19
138	IIIG1	3.55	3.73	3.69	3.55	-0.18	-0.15	0.00	0.03	0.18	0.15
139	IIIG2	3.66	3.72	3.70	3.40	-0.07	-0.04	0.25	0.03	0.32	0.29
140	IIIH1	3.73	3.59	3.64	3.56	0.14	0.09	0.18	-0.05	0.04	0.09
141	IIIH2	3.74	3.54	3.65	3.60	0.20	0.09	0.14	-0.11	-0.06	0.05
142	IIIH3	3.64	3.61	3.61	3.63	0.03	0.03	0.01	0.00	-0.02	-0.02
143	IIIH4	3.65	3.65	3.61	3.54	0.00	0.04	0.11	0.03	0.10	0.07
144	IIIH5	3.58	3.46	3.54	3.33	0.13	0.04	0.25	-0.09	0.12	0.21

## Appendix P: Average Importance Ratings by CNL Role Status

**Table P-1**  
*Subgroup Analysis – Practicing as a CNL?*

Order	Element	Mean Importance by CNL Role		Mean Difference
		No n=134	Yes n=153	No vs. Yes
36	ID3	3.58	3.76	-0.18*
41	IE2	3.47	3.70	-0.23*
1	IA1	3.47	3.42	0.05
2	IA2	3.74	3.80	-0.06
3	IA3	3.32	3.50	-0.18
4	IA4	3.40	3.50	-0.10
5	IA5	3.54	3.60	-0.06
6	IA6	3.59	3.72	-0.13
7	IA7	3.52	3.53	-0.01
8	IA8	3.43	3.56	-0.14
9	IA9	3.65	3.77	-0.12
10	IA10	3.52	3.59	-0.07
11	IA11	3.65	3.77	-0.11
12	IA12	3.82	3.81	0.02
13	IB1	3.45	3.47	-0.02
14	IB2	3.69	3.74	-0.05
15	IB3	3.47	3.37	0.10
16	IB4	3.47	3.35	0.12
17	IB5	3.68	3.74	-0.06
18	IB6	3.58	3.57	0.01
19	IB7	3.72	3.80	-0.08
20	IB8	3.63	3.76	-0.13
21	IB9	3.41	3.44	-0.03
22	IB10	3.57	3.70	-0.13
23	IB11	3.62	3.76	-0.15
24	IC1	3.04	3.04	0.00
25	IC2	3.33	3.15	0.18
26	IC3	3.53	3.50	0.03

Order	Element	Mean Importance by CNL Role		Mean Difference
		No n=134	Yes n=153	No vs. Yes
27	IC4	3.63	3.61	0.02
28	IC5	3.45	3.37	0.08
29	IC6	3.47	3.53	-0.05
30	IC7	3.29	3.13	0.17
31	IC8	3.50	3.45	0.06
32	IC9	3.54	3.56	-0.03
33	IC10	3.76	3.79	-0.03
34	ID1	3.46	3.63	-0.17
35	ID2	3.59	3.66	-0.07
37	ID4	3.62	3.62	-0.01
38	ID5	3.42	3.41	0.01
39	ID6	3.49	3.42	0.07
40	IE1	3.57	3.68	-0.11
42	IE3	3.44	3.47	-0.03
43	IE4	3.50	3.61	-0.12
44	IE5	3.58	3.60	-0.02
45	IE6	3.43	3.48	-0.05
46	IIA1	3.57	3.64	-0.07
47	IIA2	3.55	3.39	0.16
48	IIA3	3.73	3.70	0.02
49	IIA4	3.62	3.63	-0.01
50	IIA5	3.73	3.63	0.11
51	IIA6	3.49	3.59	-0.10
52	IIA7	3.42	3.38	0.03
53	IIA8	3.43	3.44	0.00
54	IIA9	3.48	3.52	-0.04
55	IIA10	3.53	3.52	0.01
56	IIA11	3.63	3.61	0.02
57	IIA12	3.39	3.45	-0.06
58	IIA13	3.58	3.47	0.11
59	IIA14	3.54	3.50	0.04
60	IIA15	3.30	3.14	0.16

Order	Element	Mean Importance by CNL Role		Mean Difference
		No n=134	Yes n=153	No vs. Yes
61	IIB1	3.40	3.57	-0.17
62	IIB2	3.17	3.13	0.05
63	IIB3	3.38	3.55	-0.16
64	IIB4	3.55	3.61	-0.06
65	IIB5	3.39	3.54	-0.15
66	IIB6	3.55	3.71	-0.16
67	IIB7	3.42	3.54	-0.12
68	IIB8	3.54	3.60	-0.06
69	IIB9	3.60	3.68	-0.09
70	IIB10	3.40	3.39	0.01
71	IIC1	3.58	3.71	-0.14
72	IIC2	3.54	3.66	-0.12
73	IIC3	3.51	3.60	-0.09
74	IIC4	3.43	3.47	-0.04
75	IIC5	3.20	3.20	0.00
76	IIC6	3.40	3.39	0.01
77	IIC7	3.35	3.30	0.05
78	IIC8	3.36	3.36	0.00
79	IIC9	3.37	3.35	0.02
80	IID1	3.34	3.36	-0.02
81	IID2	3.37	3.44	-0.07
82	IID3	3.15	3.18	-0.04
83	IID4	3.22	3.23	-0.01
84	IID5	3.28	3.38	-0.09
85	IID6	3.21	3.19	0.03
86	IID7	3.41	3.31	0.10
87	IID8	3.17	3.18	-0.01
88	IIIA1	3.68	3.72	-0.03
89	IIIA2	3.71	3.78	-0.07
90	IIIA3	3.49	3.53	-0.04
91	IIIA4	3.70	3.81	-0.12
92	IIIA5	3.63	3.69	-0.06

Order	Element	Mean Importance by CNL Role		Mean Difference
		No n=134	Yes n=153	No vs. Yes
93	IIIA6	3.56	3.56	0.01
94	IIIA7	3.79	3.76	0.03
95	IIIA8	3.69	3.76	-0.06
96	IIIB1	3.61	3.49	0.13
97	IIIB2	3.51	3.49	0.02
98	IIIB3	3.35	3.15	0.19
99	IIIB4	3.41	3.32	0.09
100	IIIB5	3.26	3.19	0.07
101	IIIB6	3.54	3.50	0.05
102	IIIB7	3.40	3.42	-0.01
103	IIIB8	3.44	3.39	0.06
104	IIIB9	3.41	3.23	0.17
105	IIIB10	3.34	3.32	0.02
106	IIIB11	3.37	3.26	0.11
107	IIIC1	3.68	3.75	-0.07
108	IIIC2	3.66	3.71	-0.05
109	IIIC3	3.44	3.48	-0.04
110	IIIC4	3.46	3.50	-0.04
111	IIIC5	3.45	3.44	0.01
112	IIIC6	3.39	3.28	0.11
113	IIID1	3.62	3.72	-0.11
114	IIID2	3.70	3.67	0.04
115	IIID3	3.60	3.68	-0.08
116	IIID4	3.68	3.67	0.01
117	IIID5	3.79	3.77	0.02
118	IIID6	3.69	3.68	0.00
119	IIIE1	3.72	3.72	0.00
120	IIIE2	3.63	3.71	-0.07
121	IIIE3	3.67	3.74	-0.07
122	IIIE4	3.61	3.70	-0.09
123	IIIE5	3.68	3.71	-0.03
124	IIIF1	3.55	3.51	0.05

Order	Element	Mean Importance by CNL Role		Mean Difference
		No n=134	Yes n=153	No vs. Yes
125	IIIF2	3.36	3.39	-0.03
126	IIIF3	3.38	3.41	-0.03
127	IIIF4	3.49	3.43	0.06
128	IIIF5	3.56	3.49	0.07
129	IIIF6	3.52	3.47	0.05
130	IIIF7	3.50	3.49	0.01
131	IIIF8	3.50	3.58	-0.08
132	IIIF9	3.38	3.37	0.01
133	IIIF10	3.52	3.51	0.00
134	IIIF11	3.59	3.64	-0.04
135	IIIF12	3.44	3.50	-0.06
136	IIIF13	3.47	3.46	0.02
137	IIIF14	3.51	3.58	-0.07
138	IIIG1	3.64	3.62	0.03
139	IIIG2	3.54	3.71	-0.16
140	IIIH1	3.60	3.68	-0.08
141	IIIH2	3.63	3.67	-0.04
142	IIIH3	3.62	3.63	-0.01
143	IIIH4	3.62	3.61	0.00
144	IIIH5	3.48	3.53	-0.05

## Appendix Q: 2016 JA CNL Detailed Content Outline

**Table Q-1**

*CNL Detailed Content Outline Resulting from 2016 Job Analysis Study*

### **I. Nursing Leadership (Weight: 32% of exam)**

#### **A. Horizontal Leadership (Target Weight: 7% of exam)**

- 1) Apply leadership change and complexity theories
- 2) Apply Strategies to guide the collaborative team to use clinical judgement to make safe patient care decisions
- 3) Facilitate delegation of patient care coordination activities
- 4) Appraise and evaluate coordinated care activities
- 5) Demonstrate accountability for microsystems healthcare outcomes
- 6) Practice as a role model for other healthcare providers, including coaching and mentoring the healthcare team
- 7) Coordinate evaluation and update plans of care at an advanced level collaboratively with the interprofessional team and the patient
- 8) Organize a framework for systematic collaborative team practices to address the complexity of patient care issues
- 9) Serve as a partner and leader in the interprofessional health team
- 10) Manage and lead group processes to meet care objectives and complete healthcare team responsibilities
- 11) Develop effective working relationships within an interprofessional team to influence microsystem outcomes
- 12) Demonstrate higher order critical thinking and problem solving skills

#### **B. Healthcare Advocacy (Target Weight: 6% of exam)**

- 1) Initiate partnerships to identify health disparities, establish health promotion goals, and implement strategies to address those concerns
- 2) Interface between the patient and the healthcare delivery system to protect the rights of patients and to effect quality outcomes; knowledge of patient rights and responsibilities
- 3) Ensure that patients, families, and communities are well informed in creating a patient-centered plan of care
- 4) Negotiate and advocate for the nursing profession, the CNL role, and the interprofessional team to healthcare providers, policy makers, and consumers
- 5) Identify and propose microsystem resources to meet the needs of target populations
- 6) Explain healthcare issues and concerns to key stakeholders including elected and appointed officials, policy organizations, and to healthcare consumers

- 7) Translate appropriate healthcare information to advocate for informed healthcare decision making
- 8) Recommend improvements in the institution or healthcare system and the nursing profession
- 9) Advocate for patients, particularly the most vulnerable

**C. Implementation of the CNL Role (Target Weight: 7% of exam)**

- 1) Demonstrate professional identity and practice in developing the CNL role
- 2) Explain the capacity of CNL practice to improve healthcare processes and outcomes
- 3) Exhibit qualities of a microsystem leader within and across interprofessional teams
- 4) Appraise and apply current and new CNL evidence, competence, and practice
- 5) Synthesize CNL practice outcomes for dissemination at system, regional, national, or international level
- 6) Collaborate with a network of CNL professionals at the system, regional, national, or international level

**D. Lateral Integration of Care Services (Target Weight: 7% of exam)**

- 1) Coordinate the healthcare of patients across the care continuum
- 2) Integrate an interprofessional approach to discuss strategies to identify and acquire resources for patient populations
- 3) Coordinate and perform risk analysis using appropriate evidence-based tools to predict patient risk and safety issues within and across microsystems
- 4) Apply care management skills and principles to provide and coordinate patient care within and across specific episodes of illness and throughout the care continuum
- 5) Manage, monitor, and influence the microsystem environment to foster health and quality of care across the care continuum
- 6) Apply systems and organization theory in the design, delivery, and evaluation of healthcare delivery across the care continuum

**E. Patient Assessment (Target Weight: 3% of exam)**

- 1) Perform an advanced comprehensive assessment of the patient across the lifespan (e.g., health history, culture, socioeconomic status, spirituality, health literacy)
- 2) Perform an advanced assessment of microsystems across the care continuum to determine patient population care needs

**F. Ethics (Target Weight: 2% of exam)**

- 1) Apply patient-centered ethical decision-making framework to clinical situations that incorporates moral concepts, professional ethics, and law

- 2) Apply legal and ethical guidelines to advocate for patient well-being and preferences
- 3) Identify and analyze common ethical dilemmas including the impact on patient care and outcomes
- 4) Evaluate ethical decision making from both a personal and organizational perspective and analyze how these two perspectives may create conflicts of interest
- 5) Collaborate with the ethics committee and recognize their role in healthcare delivery

## **II. Clinical Outcomes Management (Weight: 23% of exam)**

### **A. Illness/Disease Management (Target Weight: 9% of exam)**

- 1) Coordinate the provision and management of care at the microsystem level and across the care continuum
- 2) Evaluate care for patients across the lifespan with particular emphasis on health promotion and risk reduction services
- 3) Identify patient problems that require intervention, with special focus on those problems amenable to nursing intervention
- 4) Evaluate and determine readiness, needs, and interventions for safe transition of care
- 5) Design and modify patient care based on analysis of outcomes, evidence-based knowledge, and patient's goals of care
- 6) Analyze microsystems of care and outcome datasets to anticipate patient risk and improve quality of care delivery
- 7) Apply theories of chronic illness care and population health management to patient and families
- 8) Integrate community resources, social networks, and decision support mechanisms into care management
- 9) Recognize differences in responses to illness and therapies based on patient's cultural, ethnic, socioeconomic, linguistic, religious, and lifestyle preferences
- 10) Identify disease patterns and their implications on patient's activation for self-care and on-going care
- 11) Use advanced knowledge of pathophysiology, assessment, and pharmacology to anticipate illness progression, response to therapy and to guide, teach, and engage patients and families regarding care
- 12) Use knowledge of cost and affordability issues in managing patient illness/disease across the care continuum
- 13) Synthesize literature and research findings as the foundation for the design of interventions for illness and disease management
- 14) Coordinate and implement education programs for patients and health professionals

- 15) Identify and interpret epidemiological patterns in order to manage illness and disease

**B. Health Promotion and Disease Prevention & Injury Reduction/Prevention Management (Target Weight: 9% of exam)**

- 1) Collaborate with interprofessional team members to promote health and/or prevent disease
- 2) Employ strategies to engage patients in therapeutic partnerships with interprofessional team members for disease management and self-care activation
- 3) Identify and/or modify interventions based on evidence to meet specific patient needs for health promotion and disease prevention
- 4) Design and implement interventions to modify risk factors and promote engagement in healthy lifestyles for diverse populations
- 5) Assess protective, predictive, and genetic factors that influence the health of patients
- 6) Develop clinical and health promotion programs for patient populations to reduce risk, prevent disease, and prevent disease sequelae, particularly related to chronic illness
- 7) Recognize the need for and develop community partnerships to establish risk reduction strategies to address social and public health issues
- 8) Incorporate cultural definitions of health into health promotion and disease prevention strategies
- 9) Incorporate theories and research in creating patient engagement strategies to promote and preserve health and healthy lifestyles

**C. Healthcare Policy (Target Weight: 5% of exam)**

- 1) Recognize the effect of healthcare policy on health promotion, risk reduction, and disease and injury prevention with emphasis on vulnerable populations
- 2) Recognize the interactive effect of economics on national/global health policy related to health outcomes
- 3) Analyze the effect of local, state, and/or national healthcare policy as they apply to the standards of care and scope of practice in the microsystem
- 4) Identify the influence of regulatory guidelines and quality controls within the healthcare delivery system

**III. Care Environment Management (Weight: 45% of exam)**

**A. Knowledge Management (Target Weight: 11% of exam)**

- 1) Collect data that documents the characteristics, conditions, and outcomes for various patient groups
- 2) Apply knowledge of technology, equipment, treatment regimens, or medication therapies to anticipate risk

- 3) Compare and evaluate trends of institutional and unit data to national benchmarks
- 4) Identify variations in clinical outcomes among various groups to determine where nurses have the greatest impact at the microsystem level
- 5) Synthesize data, information, and knowledge to evaluate and achieve optimal patient outcomes
- 6) Integrate assessment data into information management systems for decision support
- 7) Analyze and disseminate microsystem data that impacts health outcomes
- 8) Employ strategies to engage the interprofessional team to impact healthcare outcomes
- 9) Distinguish the impact of health literacy of patient engagement and activation for self-care

**B. Healthcare Systems/Organizations (Target Weight: 5% of exam)**

- 1) Apply knowledge of teamwork to manage change and disseminate information at the systems level
- 2) Critique and/or modify existing policies and procedures based on current evidence
- 3) Implement system-based strategies that decrease healthcare disparities
- 4) Apply theories of systems thinking to address problems and develop solutions
- 5) Distinguish how healthcare delivery systems are organized and their effect on patient care
- 6) Identify the economic, legal, and political factors that influence healthcare delivery

**C. Interprofessional Communication and Collaboration Skills (Target Weight: 7% of exam)**

- 1) Analyze patterns of communication and chain of command that impact care within the interprofessional team and across settings
- 2) Apply concepts of communication skills including critical listening during assessment, intervention, evaluation, and education of patients, families, and the healthcare team
- 3) Employ effective negotiation skills
- 4) Employ appropriate communication techniques and strategies that address social, political, economic, environmental, technological, and historical issues
- 5) Utilize interprofessional communication, collaboration, and group process concepts to meet care objectives and complete healthcare responsibilities
- 6) Translate and interpret data for the patients, families, and the healthcare team
- 7) Communicate effectively in a variety of written and spoken formats

- 8) Construct relationships with interprofessional team including management and administration
- 9) Incorporate knowledge of cultural differences to bridge cultural and linguistic barriers
- 10) Integrate emotional intelligence in communication and collaboration with patients, families, and the healthcare team
- 11) Recognize and utilize the roles and responsibilities of the interprofessional team

**D. Team Coordination (Target Weight: 6% of exam)**

- 1) Perform, teach, delegate, and manage skilled nursing procedures in the context of safety
- 2) Demonstrate effectiveness in group interactions, particularly in skills necessary to interact and collaborate with other members of the interprofessional team
- 3) Evaluate underlying assumptions and relevant evidence that influence patient and interprofessional team behavior
- 4) Establish and maintain effective working relationships within an interprofessional, multicultural team to make ethical decisions
- 5) Facilitate group processes to meet care objectives to ensure completion of interprofessional team responsibilities
- 6) Identify areas in which a conflict of interest may arise and propose resolutions or actions to resolve/prevent the conflict
- 7) Promote a positive and healthy work environment and a culture of retention
- 8) Incorporate patient/family/interprofessional team input to design, coordinate, and evaluate plans of care

**E. Quality Improvement and Safety (Target Weight: 6% of exam)**

- 1) Employ quality improvement methods in evaluating individual and aggregate patient care
- 2) Evaluate healthcare outcomes through the acquisition of data and the questioning of inconsistencies
- 3) Develop and implement the redesign of patient care utilizing assessment methodologies including but not limited to: gap analysis, Failure Modes Effect Analysis (FMEA), Root Cause Analysis (RCA), Plan-Do-Study-Act (PDSA) Cycles, and microsystem assessment
- 4) Gather, analyze and synthesize data related to risk anticipation to reduce risk and maintain patient safety
- 5) Employ strategies to guide the interprofessional team in quality improvement activities within the microsystem to impact the meso- and macrosystems

**F. Evidence-Based Practice (Target Weight: 5% of exam)**

- 1) Create framework within the microsystem to integrate patient and family preferences, interprofessional clinical expertise, and best evidence into clinical decisions
- 2) Develop foundations for assessment and clinical decisions by applying evidence-based practice
- 3) Synthesize quantitative or qualitative evidence for critical thinking and decision making to achieve optimal patient outcomes
- 4) Select relevant sources of evidence to meet specific needs of patients, microsystems, or communities when planning care
- 5) Use current evidence to improve patient care
- 6) Identify relevant outcomes and measurement strategies that will improve patient outcomes and promote cost effective care

**G. Healthcare Finance and Economics (Target Weight: 3% of exam)**

- 1) Propose cost effective strategies and/or interventions to the interprofessional team that improve efficiency and patient care outcomes
- 2) Serve as a steward for the environmental, human, and material resources while coordinating patient care
- 3) Evaluate the fiscal context in which practice occurs
- 4) Identify high cost /high volume activities, to benchmark costs nationally and across care settings
- 5) Apply ethical principles in regard to healthcare delivery relating to healthcare financing and economics.
- 6) Identify the impact of financial policies on healthcare delivery and patient outcomes
- 7) Interpret the impact of both public and private reimbursement policies that may affect patient care decisions
- 8) Evaluate the effect of healthcare financing on access to care and patient outcomes
- 9) Examine current healthcare economic concepts including but not limited to: Return on Investment (ROI), Value-Based Purchasing (VBP), bundled payments, and basic marketing strategies

**H. Healthcare Informatics (Target Weight: 3% of exam)**

- 1) Assess, critique, and analyze information sources
- 2) Design care utilizing informatics and patient care technology
- 3) Apply multiple sources of systems data in designing processes for care delivery
- 4) Evaluate clinical information systems in order to provide feedback related to efficient and accurate documentation
- 5) Apply ethical principles in the use of information systems

- 6) Evaluate the impact of new technologies on patients, families, and healthcare delivery
- 7) Identify and assess the relationships between information systems, accurate communication, error reduction, and healthcare system operation
- 8) Analyze and disseminate healthcare information among the interprofessional team and across the care continuum
- 9) Validate accuracy of consumer-provided information regarding culturally relevant health issues from multiple sources
- 10) Utilize technology for health promotion and disease prevention
- 11) Collaborate with quality improvement and information technology teams to design and implement processes for improving patient outcomes
- 12) Utilize current technology to anticipate patient risk
- 13) Demonstrate to other healthcare providers the efficient and appropriate use of healthcare technologies to maximize healthcare outcomes
- 14) Access, critique, and analyze information from multiple sources