Executive Summary

for the
Addictions Nursing Certification Board

Practice Analysis/Role Delineation of Addictions Nursing (CARN)

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Executive Summary

I. Purpose of the practice analysis.

A. The primary purpose of this practice analysis of addictions nursing was to provide evidence to support the validity of the Certified Addictions Registered Nurse (CARN) examination. The evidence collected helps to ensure that the examination truly reflects current practice, is legally defensible, and is psychometrically sound. The findings of the practice analysis must be reported to the Accreditation Board for Specialty Nursing Certification (ABSNC) for the future reapplication process.

1. The CARN Practice Analysis Task Force developed the 2017-2018 survey form by reviewing and revising the previous (2011-2012) survey form. The survey has three sections: (1) demographic information, (2) 104 activity statements to be rated for frequency and importance, and (3) 76 knowledge/skill/ability (KSA) statements, which were rated for importance, only.

2. The survey collected information from two subgroups of addictions nurses. Those prepared at the generalist level or at the master's degree level or higher, but not working in the advanced practice role completed the RN survey. Those prepared for advanced practice (master's degree or higher) and working in the advanced practice role completed the APN survey. This summary report provides information only for the participants who responded in the RN survey, since the CARN examination is designed for this subgroup.

B. The wed-based survey was administered between July and September 2018. Participants could use personal computers (PCs) or mobile devices, e.g., phones or tablets, to complete the survey. The majority (70%) of respondents used PCs or Macintosh computers, while smart phones were used by 26.3% of participants. Only 3.7% of survey participants used an iPad. Respondents were able to take a break and return to finish the survey at a later time by entering an email address and receiving an immediate email that linked to their saved survey responses. The geographic distribution of the sample for the survey is shown in Table 1 below.

Table 1
CARN Survey Respondents (30 States plus Canada)
(*N*=137)

AL-3	**IA-1**	**MT-1**	**TX-5**
AZ-2	**ID-1**	**NC-4**	**UT-1**
CA-4	**IL-2**	**NJ-7**	**VA-4**
CO-10	**IN-1**	**NY-9**	**WA-1**
CT-3	**MA-25**	**OH-7**	**WI-5**
FL-9	**MD-4**	**PA-9**	**WV-1**
GA-3	**MI-2**	**RI-2**	
HI-1	**MN-4**	**TN-1**	***Canada-5***

II. Analysis of Demographic Data (*N*=137)

A. **Gender**. 89.1% female.

B. **Ethnicity**. 89.1% white, not of Hispanic origin.

C. **Years of experience**. The number of years as an RN ranged from less than one to 54, with a mean of 22.77 years (*SD*=13.59). The number of years reported in addictions nursing ranged from less than one to 45, with a mean of 13.32 (*SD*=10.72). The number of years in the respondents' current position ranged from less than one to 45, with a mean of 7.94 (*SD*=8.78)

D. **Highest level of education attained**. The largest group (65 or 47.5%) of all 137 respondents held baccalaureate degrees in nursing, while 34 (24.8%) held associate degrees in nursing, 11 (8.0%) held diplomas in nursing, and 22 (16.1%) held a master's degree.

E. **Practice setting**. Respondents could select multiple practice settings (from a list of 19 settings) in which they spent at least one-third of their time. Just over one-third of respondents (34.3%) reported working in an outpatient treatment center, while the next highest number (25.5%) reported working in an inpatient acute treatment center. Thirty-two respondents (23.4%) reported working in an inpatient residential treatment center, while thirty respondents (21.9%) reported working in a hospital unit. Twenty respondents (14.6%) reported working in a mental health facility/clinic. Both the substance use outreach setting and the community health center setting were each chosen by about 8% of respondents while less than ten respondents chose academia, private practice, telehealth, or military. Fewer than 4% of respondents selected any of the other settings, e.g., home health care, school-based clinic, etc.

F. **Primary position/role**. The largest group, about one-third of the respondents (*n*=45 or 32.9%), reported their position as a clinical nurse, followed by direct patient care (*n*=17 or 12.4%). Twelve respondents (8.8%) reported being a nurse manager while another 8% reported being a supervisor/coordinator. About 7% of respondents reported their role as a case manager and another 7% reported their position as director/VP. All other positions were reported by fewer than 7% of respondents.

G. **Time spent performing addictions nursing activities**. Respondents spent the majority (53.1%) of their time in direct patient care (*SD*=30.52), followed by administration (management, supervision, clerical) (20.2% of time, *SD*=22.99%), and consultation with providers/care coordination (16.5% of time, *SD*=17.68). Respondents spent about 6.4% of their time in community outreach/education (*SD*=14.16). Respondents spent less than 2% of their time in telehealth, marketing, or other activities.

H. **Performing direct patient care**. The vast majority of respondents (*n*=115 or 83.9%) reported that they provide direct patient care. Almost all of the respondents reported working with patients between the ages of 22 and 60 years old (92% reported caring for patients aged 22-40 years old, while about 94% reported caring for patients 41-60 years old.) Only 7% of respondents reported caring for infants, but 85% of the group reported caring for adolescents 12-21.

I. **Time spent with various patient problems**. ***This is a critical area of the survey, since "Patient Problems" is suggested as one axis of the CARN test blueprint.*** As expected, the survey results confirmed a shift in the types of patient problems seen by the addictions nurse since the last practice analysis survey from 2012. The 115 respondents reported spending a mean of 40.8% of their time performing direct patient care with patients with opioid use disorder, followed by 27.1% of time spent with patients with alcohol use disorder. The group reported that 9.4% of time was spent with patients with stimulant use disorders - cocaine, amphetamines, caffeine, while 8.5% of time was spent caring for patients with prescription medication disorders, such as sedatives, hypnotics, anxiolytics, gabapentin, etc. Respondents reported spending less that 6% of time with patients with cannabis use disorders, tobacco use disorders and other substance use. About 1% of time was spent caring for patients with process addictions, such as eating, gambling, sex, and internet. The time spent with various patient problems is shown in Table 2 below.

Table 2
Mean Percent of Time with Various Patient Problems in Ranked Order
(*N*=115)

Patient Problem	Mean % of time	*SD*
Opioid use disorder	40.84%	25.51
Alcohol use disorder	27.10%	18.90
Stimulant use disorders - e.g., cocaine, amphetamines, caffeine, etc.	9.38%	8.37
Prescription medication disorders - e.g., sedatives, hypnotics, anxiolytics, gabapentin, etc.	8.50%	8.02
Cannabis use disorders	5.77%	9.76
Tobacco use disorders	5.52%	7.97
Other substance use - e.g., inhalants, designer drugs, hallucinogens, ketamine, etc.	1.82%	3.23
Process addictions - e.g., eating, gambling, sex, internet, etc.	1.07%	3.60

J. **Time spent with various patient problems**, **continued.** Respondents reported that about 73.4% of their patients have polysubstance use disorder. Polysubstance use disorder is the term used to describe someone who's substance use disorder includes two or more substances. Respondents also reported that about 76.1% of their time was spent caring for patients who have co-occurring psychiatric and/or medical disorders, e.g., process addictions, infectious diseases, mental health disorders, etc.

RECOMMENDATION 1. The current CARN examination blueprint has only one axis, Nursing Process. Currently the weights assigned to each domain are:

1. Assessment - 23%
2. Diagnosis - 10%
3. Identifying outcomes - 12%
4. Planning of care - 17%
5. Implementation of care - 30%
6. Evaluation of care - 8%

The Score Report for candidates who were unsuccessful on the CARN examination includes this breakdown along with the percent of questions the candidate answered correctly in each domain. Candidates complain this information does not sufficiently address where they lack knowledge in the addictions nursing role, and is not helpful for preparing for retest. The Task Force recommends adding the blueprint area Patient Problem for the distribution of test content in the CARN test blueprint. The Task Force redistributed the nine patient problem areas from the survey to the seven areas shown in Table 3.

Table 3
Proposed Distribution of Test Content by Patient Problems

Patient Problem	% of Test Content
A. Opioid use disorder	25%
B. Alcohol use disorder	25%
C. Medication misuse - e.g., sedatives, hypnotics, anxiolytics, gabapentin, etc.	15%
D. Co-occurring psychiatric/comorbid medical disorders - e.g., process addictions, infectious diseases, and mental health disorders, etc.	15%
E. Stimulant use disorders - e.g., cocaine, amphetamines, caffeine, etc.	10%
F. Cannabinoids and other hallucinogens	5%
G. Tobacco use disorder - e.g., vaping, nicotine, etc.	5%

III. Analysis of Activity Statements.

A. The survey included a list of 104 nursing activities that are performed within each of the six Domains of Nursing Practice.

B. Participants were asked to indicate if they performed each activity. For each activity performed, they were asked to rate: (a) the frequency of performance on a 4-point scale, ranging from "monthly or less" to "several times a day," and (b) the importance of the activity in their current practice on a 4-point scale, ranging from "irrelevant" to "essential." Descriptions were provided for each level of importance.

C. An activity index was calculated by adding frequency plus (importance x 2). Importance was given twice the weight of frequency, since some activities (e.g., CPR) may be critically important, although performed infrequently. The highest possible index was 12, or 4 + (4 x 2). The activity indices ranged from a low of 5.75 for "Refer for massage therapy," to a high of 12.00 for "Provide appropriate care for the neonate in withdrawal." The overall mean activity index was 9.48 (*SD*=1.81).

D. The Task Force with the assistance of C-NET redistributed the activities into five Domains of Nursing Practice areas and renamed the areas to better describe the activities as they pertain to the addictions nursing role.

RECOMMENDATION 2. The Task Force recommends changing the current Domains of Nursing Process blueprint axis to the new Domains of Nursing Practice axis with the assigned weights:

1. Perform a biopsychosocial SUD assessment - 15%
2. Assess acute care needs of SUD patients - 15%
3. Develop and implement an individualized plan of care - 20%
4. Educate and promote behavioral change - 15%
5. Care management, treatment, and evaluation, throughout the recovery continuum, including special populations, e.g., incarcerated, elderly, etc. - 35%

The distribution of the 104 survey activities by the Domain of Nursing Practice are shown in Tables 4-A, B, C, D, and E as follows. Note that the heading D-N-P indicated "Do Not Perform."

Table 4
Activity Statements by Areas of Practice in Ranked Order - CARN Group
(*N* = 137)

A. Perform a biopsychosocial SUD assessment						
Survey #	**Rank**	**Activity**	***n***	**D-N-P**	***M* Index**	***SD***
13	1	Appropriately document all assessment findings	121	16	10.89	1.49
5	2	Assess physical assessment results, diagnoses, treatment plans, prescriptions, or outcomes	114	23	10.32	1.82
3	3	Assess patients' medical and psychosocial histories	119	18	10.17	1.80
4	4	Assess comprehensive substance use history	119	18	10.00	1.84
22	5	Assess behaviors related to active substance use	109	28	9.93	1.80
15	6	Identify and follow protocol regarding child safety	66	71	9.76	1.64
37	7	Assess patient's health literacy	96	41	9.60	1.91
12	8	Validate assessments with appropriate diagnostic screening tools and resources	95	42	9.45	2.04
11	9	Identify the adverse consequences (e.g., legal, relationship, occupational, physical) of substance use for the patient	112	25	9.42	1.84
2	10	Assess the effect of interpersonal interactions and social determinants of health (e.g. community, family) on health and illness	101	36	9.33	2.08
9	11	Assess for intimate partner violence and trauma history	104	33	9.31	2.02
7	12	Assess risk factors for substance use disorder (e.g., spiritual, cultural, environmental, genetic)	99	38	9.04	1.99
35	13	Assess for social/legal consequences of process addictions	41	96	9.00	1.83
33	*14-tie*	Assess for social/legal consequences of substance use disorders	94	43	8.97	2.13
10	*14-tie*	Assess protective factors against substance use disorder (e.g., spiritual, cultural, environmental, genetic)	97	40	8.97	2.04
6	16	Assess family dynamics and culture related to substance use	96	41	8.81	1.88
14	17	Identify and follow protocol in response to impaired professionals	74	63	8.69	1.74
8	18	Assess sexual history	85	52	8.55	2.12
34	19	Assess for social/legal consequences of eating disorders	28	109	8.46	1.67
		19 activities ***M* = 9.40** ***SD* = 1.88**				

B. Assess acute care needs of SUD patients						
Survey #	**Rank**	**Activity**	***n***	**D-N-P**	***M* Index**	***SD***
20	1	Assess for withdrawal from drugs	116	21	10.59	1.64
16	2	Assess severity of substance use disorder	102	35	10.38	1.67
19	3	Assess for withdrawal from alcohol	106	31	10.35	1.84
42	4	Utilize standardized instruments for screening, assessment, and evaluation (e.g., COWS, CIWA, HAM-A, AUDIT-C)	109	28	10.33	2.03
23	5	Assess behaviors related to withdrawal	116	21	10.22	1.75
18	6	Assess severity of acute intoxication of substance use	100	37	10.14	1.67
39	7	Obtain and review relevant lab and toxicology results and initiate appropriate protocol	98	39	10.12	1.78
30	8	Assess for acute/chronic psychiatric effects of substance use disorder	108	29	10.11	1.71
27	9	Assess for acute/chronic medical effects of substance use disorders	108	29	9.99	1.84
22	10	Assess complications secondary to behaviors related to active substance use	109	28	9.93	1.80
41	11	Obtain and review appropriate point-of-care testing results and initiate appropriate protocol (e.g., urine HCG, PPD, rapid HIV test, HCV, breathalyzer, etc.)	89	48	9.78	1.84
1	12	Base assessment techniques/activities on research (evidence-based practice/best practices)	108	29	9.64	2.16
21	13	Assess pain management factors in patients with substance use disorders	111	26	9.59	1.84
32	14	Assess for acute/chronic psychiatric effects of process addictions	49	88	9.35	1.60
24	15	Assess for early signs and symptoms of substance use disorders	73	64	9.34	2.06
29	16	Assess for acute/chronic medical effects of process addictions	54	83	8.96	1.85
28	17	Assess for acute/chronic medical effects of eating disorders	45	92	8.62	1.85
26	18	Assess for early signs and symptoms of process addictions	50	87	8.46	2.29
31	19	Assess for acute/chronic psychiatric effects of eating disorders	40	97	8.43	1.47
25	20	Assess for early signs and symptoms of eating disorders	51	86	8.25	1.95
40	21	Obtain and review relevant radiology reports and initiate appropriate protocol	36	101	8.22	2.14
		21 activities ***M* =9.56** ***SD* = 1.84**				

C. Develop and implement an individualized plan of care						
Survey #	**Rank**	**Activity**	***n***	**D-N-P**	***M* Index**	***SD***
99	1	Maintain confidential information in accordance with legal standards (CFR-42)	129	8	11.34	1.10
50	2	Use therapeutic communication skills to improve patient outcomes	118	19	10.96	1.54
77	3	Develop and maintain a therapeutic relationship in all aspects of patient treatment	115	22	10.85	1.54
51	4	Use patient-centered care principles to improve patient outcomes	118	19	10.64	1.54
49	5	Promote a safe environment for implementation of the plan	103	34	10.53	1.71
43	6	Collaborate with interdisciplinary team in developing treatment plan	115	22	10.29	1.78
52	7	Implement evidence-based practice to improve patient outcomes	113	24	10.23	1.71
57	*8-tie*	Advocate on behalf of the patient/family	125	12	10.08	1.72
17	*8-tie*	Assess risk for relapse	91	46	10.08	1.84
56	10	Prioritize patient care based on individualized treatment plan	101	36	10.01	1.71
44	11	Tailor treatment plan to accommodate patients' individualized treatment needs (e.g., gender, culture, religious, etc.)	90	47	9.93	1.90
53	12	Collaborate with the interdisciplinary team to implement the plan	114	23	9.92	2.03
54	13	Facilitate the coordination of integrated patient care services with interdisciplinary care team	93	44	9.87	1.76
48	14	Utilize specific ethical principles such as autonomy, shared decision-making, and justice in developing a treatment plan	82	55	9.82	1.76
100	*15-tie*	Refer to self-help/peer support groups (e.g., AA, NA, Smart Recovery, Celebrate Recovery, etc.)	98	39	9.64	1.92
45	*15-tie*	Identify specific interventions with measurable treatment goals rooted in evidence based practice	89	48	9.64	1.90
55	17	Refer patient to appropriate community resources to meet goals of treatment plan	78	59	9.23	1.87
46	18	Engage the patient and family in the development of the treatment plan	78	59	9.21	1.90
97	19	Ensure continuity of care when making referrals to other levels of care	82	55	9.13	1.82
98	20	Refer patients to specific care providers for additional care based upon patient needs (e.g., financial, family, environmental, transportation, etc.)	67	70	8.72	1.80
		Provide or refer for complimentary/alternative therapy (e.g., mindfulness, aroma therapy, yoga, healing touch, acupuncture, massage therapy)				
95	22	Provide community outreach/resources	16	121	7.81	2.79
		22 activities ***M* = 9.81** ***SD* = 1.80**				

D. Educate and promote behavioral change						
Survey #	**Rank**	**Activity**	***n***	**D-N-P**	***M* Index**	***SD***
60	*1-tie*	Educate patients and family members about expected effects and potential side effects of medications	111	26	10.13	1.76
74	*1-tie*	Offer emotional support to patient and families throughout treatment and recovery continuum	113	24	10.13	1.77
36	3	Assess patient's readiness for behavioral change	105	32	10.07	1.76
68	4	Utilize motivational interviewing techniques to promote behavioral change	92	45	9.92	1.84
58	5	Educate patients and family members about medical and psychiatric comorbidities	108	29	9.81	1.95
47	6	Facilitate patient understanding (language, health literacy, etc.) of the agreed upon treatment plan	89	48	9.78	1.83
61	7	Educate patients and family members about recovery management and relapse prevention	98	39	9.66	1.81
59	8	Educate patients and family members about preventive health measures (harm reduction, protective factors, risk reduction, etc.)	112	25	9.55	1.89
96	9	Utilize cognitive behavioral strategies to improve patient outcomes	71	66	9.42	2.02
70	*10-tie*	Educate other health care professionals regarding the specific treatment needs of patients with substance use disorder	107	30	9.13	1.98
69	*10-tie*	Utilize screening and brief interventions (SBIRT) to promote behavioral change	55	82	9.13	2.00
65	12	Design health information and patient education appropriate to the patient's developmental level, readiness to learn, and cultural values and beliefs	72	65	8.94	2.16
64	13	Utilize evidence-based literature to develop educational programming about eating disorders	15	122	8.67	1.63
62	14	Utilize evidence-based literature to develop educational programming about the neurobiological basis of addictions, comorbid conditions, and health maintenance principles	69	68	8.54	2.12
66	15	Design health information specific to the needs of special populations (i.e., incarcerated patients, neonates, the elderly, etc.)	44	93	8.43	2.44
63	16	Utilize evidence-based literature to develop educational programming about process addictions	44	93	8.36	2.02
67	17	Evaluate and update health information resources (e.g., materials, web sites) in the area of practice for health literacy and accuracy, readability	38	99	7.42	2.15
		16 Activities ***M*** **= 9.35** ***SD*** **= 1.93**				

E. Care management, treatment, and evaluation throughout the recovery continuum (including special populations)						
Survey #	**Rank**	**Activity**	***n***	**D-N-P**	***M* Index**	***SD***
86	1	Provide appropriate care for the neonate in withdrawal	2	135	12.00	0.00
78	2	Administer medication for management of alcohol withdrawal symptoms and monitor response	73	64	11.00	1.32
80	3	Administer medication for management of benzodiazepine withdrawal symptoms and monitor response	63	74	10.68	1.50
79	4	Administer medication for management of opioid withdrawal symptoms and monitor response	83	54	10.61	1.55
84	5	Evaluate therapeutic and potential adverse effects of pharmacological treatments	105	32	10.40	1.55
73	6	Implement standards of care to prevent complications of acute withdrawal	81	56	10.27	1.88
82	7	Support the patient through induction, stabilization, and maintenance of medication treatment for opioid use disorder	86	51	10.21	1.62
83	8	Manage symptoms of concurrent psychiatric disorders in patients with substance use disorders	88	49	10.20	1.55
81	9	Administer medications to reduce cravings and monitor response	78	59	9.97	1.75
101	10	Evaluate patient's and family's response to interventions	79	58	9.89	1.59
76	11	Offer group counseling for the patient and family	26	111	9.81	1.83
75	*12-tie*	Offer one-to-one counseling for the patient and family	56	81	9.77	1.92
85	*12-tie*	Evaluate therapeutic and potential adverse effects of non-pharmacological treatments	77	60	9.77	1.71
104	14	Evaluate effectiveness of staff's intervention implementation	72	65	9.76	1.80
88	15	Provide appropriate care for the adolescent in withdrawal	18	119	9.56	1.58
87	16	Provide appropriate care for the older adult patient in withdrawal	72	65	9.49	1.68
102	17	Revise plan of care in collaboration with an interdisciplinary team as needed	104	33	9.30	1.78
103	18	Evaluate transition of patients along continuum of care	62	75	9.27	1.89
72	19	Advocate for professionals in recovery	68	69	8.38	1.98
93	20	Refer for mindfulness	47	90	7.87	1.97
94	21	Refer for aroma therapy	9	128	7.33	2.40
92	22	Refer for yoga	34	103	6.76	1.99
91	23	Refer for healing touch	7	130	6.71	1.25
89	24	Refer for acupuncture	30	107	6.53	1.89
90	25	Refer for massage therapy	16	121	5.75	1.24
		19 Activities ***M*** **= 10.02** ***SD*** **= 1.61**				

E. The Task Force determined that activities with a mean index of 7.5 or higher could be included in the test specifications (blueprint) if performed by at least one-third (*n*=38) of respondents. Six of the activities did not meet these criteria: 1) In Domain D, "Evaluate and update health information resources (e.g., materials, web sites) in the area of practice for health literacy and accuracy, readability," In Domain E, "Refer for aroma therapy," "Refer for yoga," "Refer or healing touch, "Refer for acupuncture," and "Refer for massage therapy." (See yellow highlights in activity list.)

RECOMMENDATION 3. The Task Force recommends that the activity statement, "Evaluate and update health information resources (e.g., materials, web sites) in the area of practice for health literacy and accuracy, readability" be deleted from the list of activities in Domain D.

RECOMMENDATION 4. The Task Force recommends the five activity statements, "Refer for aroma therapy," "Refer for yoga," "Refer or healing touch," "Refer for acupuncture," and "Refer for massage therapy" be deleted from D. The activity statement, "Refer for mindfulness" was above the threshold, with a rating of 7.87. The Task Force decided to combine the deleted activities into one activity, "Provide or refer for complimentary/alternative therapy (e.g., mindfulness, aroma therapy, yoga, healing touch, acupuncture, massage therapy)," and move the activity to area C, "Develop and implement an individualized plan of care."

IV. Analysis of Knowledge, Skill, Ability (KSA) Statements.

A. The survey included 76 KSA statements that represented the underlying knowledge, skills, and abilities needed to perform addictions nursing activities competently. Participants were asked to rate the importance of each statement on a 4-point scale, ranging from "Irrelevant" to "Essential," with descriptions of each level of importance similar to those provided for the activity statement ratings. All 137 participants responded to each KSA statement.

B. The KSA statements are shown in order from highest mean rating to lowest mean rating in Table 5. The highest possible index was 4.00, since the scale ranged from 1 to 4. The mean ratings of KSA statements ranged from a low of 2.33 for "Taxonomy of eating disorder," to a high of 3.81 for "Patient confidentiality," followed by "Patient safety," with a mean rating of 3.76. The overall mean rating for KSAs was 3.23 (*SD*=0.75).

C. The suggested threshold for determining if content related to a KSA statement should be considered for inclusion in the CARN examination is a rating of 2.5. Two statements fell below that threshold, "Taxonomy of process addictions (e.g. gambling, sexual, spending, shopping)" with a rating of 2.36 (*SD*=0.91) and "Taxonomy of eating disorder" with a rating of 2.33 (*SD*=0.99). The Task Force agreed to include them, based on the addition of the Patient Problem axis, specifically because blueprint area D, "Co-occurring psychiatric/ comorbid medical disorders (process addictions, infectious diseases, and mental health disorders)" will likely include questions concerning this content.

Table 5
Knowledge, Skill, and Ability (KSA) Statements in Ranked Order - CARN Group
(*N* = 137)

Survey #	Ranking	KSA	*n*	*M*	*SD*
48	1	Patient confidentiality	137	3.81	0.49
63	2	Patient safety	137	3.76	0.49
58	*3-tie*	Critical thinking skills	137	3.74	0.53
57	*3-tie*	Communication skills	137	3.74	0.50
46	*5-tie*	Boundaries of the therapeutic/professional relationship	137	3.66	0.67
65	*5-tie*	Measures to treat life-threatening situations	137	3.66	0.67
61	*7-tie*	Clinical decision making	137	3.61	0.61
43	*7-tie*	Quality of practice	137	3.61	0.68
54	9	Scope of practice	137	3.59	0.67
28	*10-tie*	Assessment and diagnosis	137	3.57	0.63
75	*10-tie*	Documentation skills	137	3.57	0.65
32	12	Needs of patients with substance use disorders	137	3.56	0.63
53	13	Ethical principles	137	3.50	0.72
60	*14-tie*	Interdisciplinary participation	137	3.48	0.65
64	*14-tie*	Planning care to meet patient treatment goals	137	3.48	0.68
29	16	Pharmacotherapy	137	3.47	0.68
51	17	Trauma (PTSD, sexual, physical, emotional, etc.)	137	3.46	0.70
8	*18-tie*	Intervention strategies	137	3.45	0.64
20	*18-tie*	Patient psychological problem	137	3.45	0.70
36	*20-tie*	Needs of patients with co-occurring disorders	137	3.42	0.72
62	*20-tie*	Teaching/learning principles	137	3.42	0.68
41	*22-tie*	Continuing education	137	3.41	0.74
47	*22-tie*	Protect public from harm	137	3.41	0.73
67	24	Professional development	137	3.40	0.64
37	*25-tie*	Assessment of relapse potential	137	3.39	0.77
45	*25-tie*	Interdisciplinary process	137	3.39	0.65
55	*25-tie*	Concept of Stigma	137	3.39	0.74
42	*28-tie*	Evidence based practice and research	137	3.38	0.75
68	*28-tie*	Time management organizational skills	137	3.38	0.72
19	30	Patient physiological problems	137	3.37	0.74
56	*31-tie*	Cultural sensitivity	137	3.36	0.71
9	*31-tie*	Health promotion and disease prevention	137	3.36	0.74
31	*33-tie*	Psychotherapy/counseling treatment	137	3.34	0.77
38	*33-tie*	Relapse prevention techniques	137	3.34	0.82
2	35	Psychological risk factors	137	3.33	0.69
24	*36-tie*	Patient cognitive ability	137	3.31	0.70
76	*36-tie*	Interpretation of diagnostic tests	137	3.31	0.71
74	38	Recognition of burnout in self and peers	137	3.30	0.80
69	39	Assessing learning skills	137	3.26	0.76
49	40	Individual/cultural differences (e.g. gender, age, incarcerated populations, GLBT, cultural diversity)	137	3.24	0.72
70	41	Community resourse availability	137	3.23	0.76
		Mean Importance = 3.23 *SD* = 0.75			

Survey #	Ranking	KSA	*n*	*M*	*SD*
7	42	Prevention strategies	137	3.21	0.75
52	43	Adverse childhood events	137	3.20	0.80
3	*44-tie*	Family risk factors	137	3.18	0.75
30	*44-tie*	Non-pharmacologic treatment	137	3.18	0.71
27	*46-tie*	Biopsychosocial model	137	3.17	0.78
50	*46-tie*	Environmental risk factor	137	3.17	0.68
39	*48-tie*	Neurobiological basis of addiction and reward	137	3.15	0.87
66	*48-tie*	Referral mechanisms	137	3.15	0.77
59	50	Spiritual awarenes	137	3.14	0.75
40	51	Neurochemistry of dependence	137	3.13	0.87
6	52	Protective/resiliency factors	137	3.12	0.76
21	*53-tie*	Patient family dynamics	137	3.08	0.76
22	*53-tie*	Patient social/Community problems	137	3.08	0.75
44	55	Environmental health	137	3.06	0.78
73	56	Nursing diagnosis as applied to substance use disorders	137	3.05	0.96
71	57	Delegation skill	137	3.04	0.80
72	58	Concepts of growth and development	137	3.03	0.86
4	*59-tie*	Peer risk factors	137	3.01	0.80
13	*59-tie*	Taxonomy of opioid use disorder	137	3.01	0.91
33	61	Needs of patients with nicotine addiction	137	2.99	0.84
5	62	Community/Cultural risk factors	137	2.98	0.74
1	63	Biological risk factors	137	2.96	0.79
14	64	Taxonomy of sedative/hypnotic use disorder	137	2.88	0.92
11	65	Taxonomy of alcohol use disorder	137	2.85	0.91
26	66	Patient legal problems	137	2.83	0.76
10	67-tie	Epidemiology	137	2.80	0.82
23	*67-tie*	Patient spirituality	137	2.80	0.81
25	*67-tie*	Patient workplace problems	137	2.80	0.81
15	*67-tie*	Taxonomy of psychedelic or psychoactive substance use disorder	137	2.80	0.91
12	71	Taxonomy of stimulant use disorder	137	2.78	0.92
16	72	Taxonomy of nicotine use disorder	137	2.73	0.91
35	73	Needs of patients with process addictions	137	2.71	0.98
34	74	Needs of patients with eating disorders	137	2.69	1.07
17	75	Taxonomy of process addictions (e.g. gambling, sexual, spending/ shopping)	137	2.36	0.91
18	76	Taxonomy of eating disorder	137	2.33	0.99

RECOMMENDATION 5. The Task Force recommends to include the two KSA statements rated under the 2.5 threshold, "Taxonomy of process addictions weighted (e.g. gambling, sexual, spending. shopping)" with a rating of 2.36 (*SD*=0.91) and "Taxonomy of eating disorder" with a rating of 2.33 (*SD*=0.99). This was based on the assumption that blueprint area D on the new Patient Problem axis, "Co-occurring psychiatric/comorbid medical disorders (process addictions, infectious diseases, and mental health disorders)" will likely include questions concerning this content.

D. One purpose of including KSA statements is to determine if the highest rated activity statements and the highest rated KSA statements show congruence. In fact, ABSNC now asks applicants for accreditation to show the relationship between activities and KSAs that were on the survey. Similarities in ratings indicate consistency in the ratings of respondents in the two areas, which adds to the reliability of the survey instrument. Since there were 104 activity statements and only 76 KSA statements in the CARN survey, there is not a perfect 1:1 correspondence between the two parts of the survey. However, in general, there were marked consistencies. The highest rated activity statements tended to be related to the highest rated KSA statements, as shown in Table 6 below.

Table 6
Relationship between Activity Statements and KSA Statements

Rank	Highest Ranked Activity Statements	Rank	Highest Ranked KSA Statements
1	Provide appropriate care for the neonate in withdrawal	5 2	Measures to treat life-threatening situations Patient safety
2	Maintain confidential information in accordance with legal standards (CFR-42)	1	Patient confidentiality
3	Administer medication for management of alcohol withdrawal symptoms and monitor response	2 16	Patient safety Pharmacotherapy
4	Use therapeutic communication skills to improve patient outcomes	3	Communication skills
5	Appropriately document all assessment findings	*10-tie* *10-tie*	Assessment and diagnosis Documentation skills
6	Develop & maintain a therapeutic relationship in all aspects of patient treatment	5 13	Boundaries of the therapeutic/professional relationship Ethical principles
7	Administer medication for management of benzodiazepine withdrawal symptoms and monitor response	2 16	Patient safety Pharmacotherapy
8	Use patient-centered care principles to improve patient outcomes	14	Planning care to meet patient treatment goals
9	Administer medication for management of opioid withdrawal symptoms and monitor response	2 16	Patient safety Pharmacotherapy
10	Assess for withdrawal from drugs	10 12	Assessment and diagnosis Needs of patients with substance use disorders

E. The final proposed new CARN Examination Blueprint is shown in Table 7 on the following page.

Table 7
CARN Examination Blueprint
Ideal Distribution of 150-Item Test

→ Domains of Practice Patient problems ↓	1 Perform a biopsychosocial SUD assessment	2 Assess acute care needs of SUD patients	3 Develop and implement an individualized plan of care	4 Educate and promote behavioral change	5 Care mgmt., treatment, and evaluation, throughout the recovery continuum (including special populations)	TOTAL
A **Opioid use disorder**	5-6	5-6	7-8	5-6	13-14	**25%** **(37-39)**
B **Alcohol use disorders**	5-6	5-6	7-8	5-6	13-14	**25%** **(37-39)**
C **Medication misuse (sedative/hypnotics/anxiolytics, gabapentinoids, etc)**	3-4	3-4	4-5	3-4	8-9	**15%** **(22-24)**
D **Co-occurring psychiatric/comorbid medical disorders (process addictions, infectious diseases, and mental health disorders)**	3-4	3-4	4-5	3-4	8-9	**15%** **(22-24)**
E **Stimulant use disorders (cocaine, amphetamines, caffeine)**	2-3	2-3	3-4	2-3	5-6	**10%** **(14-16)**
F **Cannabinoids and other hallucinogens**	1-2	1-2	1-2	1-2	2-3	**5%** **(7-9)**
G **Tobacco use disorder (e.g., vaping, nicotine)**	1-2	1-2	1-2	1-2	2-3	**5%** **(7-9)**
Total	**15%** **(22-24)**	**15%** **(22-24)**	**20%** **(29-31)**	**15%** **(22-24)**	**35%** **(52-54)**	**100%** **(150)**