



National Certification for Advanced Practice (NCAP) JOB ANALYSIS STUDY

**Prepared for the:
National Certification Board for Therapeutic Massage & Bodywork**

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1.0 INTRODUCTION

1.1 The National Certification for Advanced Practice (NCAP)

The National Certification Board for Therapeutic Massage & Bodywork (NCBTMB) is developing a National Certification for Advanced Practice (NCAP). On their website, NCBTMB described the origin of the credential as follows:

The desire for such an advanced certification has been verified through various projects and studies over the last twelve years:

- *In 1997, Job Task Analysis survey respondents indicated a desire for advanced certification and specialty exams. In response, NCBTMB commissioned a Task Force, which then distributed a market research survey to stakeholders through the NCB Connections newsletter. When asked to respond to "I support the development of a "Masters" or Advanced Level of certification which recognizes higher levels of skill and experience than the current NCBTMB credential" almost two-thirds of the respondents agreed or strongly agreed.*
- *In 2000, a feasibility study for an advanced credential was undertaken. This further reinforced the idea, noting the need for a body of knowledge in order to proceed.*
- *Shortly thereafter, in 2001, a Pre-Job Analysis Report for Advanced Certification was commissioned with an independent testing company to confirm the belief that a real construct exists for an advanced exam and credential. This was confirmed and in 2002 and 2003, further refining work was completed regarding task analysis and item development.*
- *In 2007, the Job Task Analysis again reflected that the profession desired a voluntary advanced credential.*
- *Finally, in 2009, after review of these past efforts and confident that the desire for such a credential was evident, the NCBTMB Board of Directors decided to proceed with the creation of an advanced certification credential and exam. Nearly 7,000 practitioners responded to the Needs Assessment Survey, indicating that the interest in such a credential remains high.*

1.2 The Purpose of a Job Analysis Study

The foundation for the test development of professional licensure and certification examinations is based on job analyses, as called for in the joint standards of the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education (AERA, APA, and NCME, 1999). Standard 14.10 explains that the validity evidence for test content should include a description of the job content domain. Standard 14.14 states that the content domain to be covered by a credentialing examination should be defined clearly and should be justified in terms of the importance of the content for credential-worthy performance in an occupation or profession. Other popular standards in certification and licensure testing, such as the standards delineated for accreditation by the Institute for Credentialing Excellence (ICE) or the American National Standards Institute (ANSI), similarly cite job analyses as a necessary foundation for testing programs. The job analysis results are used to delineate or update the test specifications, ensuring that the certification examination reflects the current practice of the field in question.

A process-oriented test plan was envisioned to easily translate the job analysis tasks into test specifications without requiring linkages. Other advantages of process-oriented test plans stem from the direct link to job performance. The resulting test specifications encourage the development of practice-based test items (Raymond, 2002, p. 32). The job analysis study reported herein was undertaken as the first step in the test-development cycle used by NCBTMB for the NCAP.

2.0 METHODOLOGY

2.1 Overview of Methodology Used in This Study

The job analysis methodology used in this study had three main steps. Initially, a Task Force of Subject Matter Experts was created to guide the development of the new credential. The members of the Task Force are listed in Appendix A. A subset of the NCAP Task Force was assigned to the Advanced Certification Job Analysis Study Panel to delineate the major responsibilities of Advanced Practitioners and the tasks encompassed within those major responsibilities. The panel delineated what Advanced Practitioners need to know to perform the tasks and responsibilities and they helped craft demographic items for the survey of incumbents. After their recommendations were accepted by the NCAP Task Force, incumbent Advanced Practitioners were surveyed about the frequency and the importance of the delineated responsibilities and tasks, the importance of knowledge areas, and their own demographic information.

2.2 Task Force to Delineate Content

Delineating the important tasks and knowledge required for competent practice is a lengthy and complex process. In 2009, NCBTMB created a Task Force of volunteer experts, selected to be representative of experienced practitioners, to facilitate and guide the development of the new credential. A panel of individuals from the Task Force formed the Advanced Certification Job Analysis Study Panel, and was asked to meet together and delineate the major job responsibilities and the associated tasks of Advanced Practitioners. The members of this panel are listed in Appendix B. These panel members attended a two-day meeting in the NCBTMB headquarters.

The agenda for the meeting is included as Appendix C. The panel worked in an iterative fashion to delineate the major job responsibilities and the tasks associated with each responsibility. There were various ways that the content of the field could have been organized, and the panel worked toward a structure that logically addressed the work of Advanced Practitioners. Throughout the delineation of responsibilities and tasks, the Task Force members were asked to adhere to the principle that each task must be observable, i.e., it must be possible to delegate the task to a colleague. This distinction ensured that there was no overlap between this step and the next step in the process, the delineation of the knowledge section. Additionally, Task Force members were asked to focus on the work that is unique to advanced practitioners. They were asked to refrain from citing tasks or skills that are important in many fields, such as arriving to work on time or communicating clearly with co-workers. The panel also discussed related aspects of the planned survey of incumbents, such as the demographic items to be included and the rating scales for the survey questions.

Once the Advanced Certification Job Analysis Study Panel had delineated the survey content, their recommendations were sent to the NCAP Task Force before being pilot tested before two small groups of individuals to assure usability and clarity. After refinements, NCBTMB began the sampling of incumbents.

2.3 Survey of Incumbents

NCBTMB approved Pearson VUE's recommendation to use *SurveyMonkey*, a powerful electronic survey tool, for the administration and recording of survey responses.

The introduction to the survey provided information about confidentiality and the estimated time for completion. The survey introduction clearly indicated five eligibility criteria for advanced practice, and invited respondents to indicate whether or not they meet each one, rather than precluding those who did not from participation. Respondents were given this information:

The NCBTMB would like to analyze survey responses from people who meet the eligibility criteria separately from the people who do NOT meet the eligibility criteria. Please review the eligibility criteria below and indicate whether or not you meet each criterion.

The NCBTMB may choose to analyze the full data set or the non-eligible responses at a later date. This report presents the data ONLY from respondents whose responses to the first five questions indicate eligibility for the NCAP.

Task Ratings

The first content section of the survey addressed seven major areas or domains of responsibility and 68 tasks therein. For each of the 68 tasks, respondents were asked to make two ratings. First, they used a drop-down menu to indicate how frequently they performed the task in their therapeutic massage and/or bodywork practice. (They clicked on their preferred response.) They used a second drop-down menu to indicate how important the task is (in any settings and modalities). The directions indicated that some tasks will be performed more frequently than others, and some tasks will be more important than others. Respondents were told that it is possible that a task could be important to their work, but performed infrequently, or performed by someone else (high importance, low frequency). For the frequency ratings, there were four response options:

- Daily or weekly
- Monthly
- Annually
- Never

For the importance ratings, there were four response options:

- Very important
- Important
- Somewhat important
- Not important

Following the rating of the 68 tasks presented within the seven content domains, participants were asked: *“To what extent did this survey cover the TASKS you perform in your therapeutic massage and bodywork practice?”*

An invitation to *“List any MAJOR tasks performed by advanced practitioners of therapeutic massage and bodywork that were not listed in this survey”* followed. This item enabled respondents to submit important tasks that may not have been included in the survey.

Knowledge Ratings

The next content section of the survey addressed the importance of the general areas of knowledge required for advanced practice in therapeutic massage and bodywork. For each of 18 knowledge areas, respondents were asked to make one rating regarding importance. Respondents indicated the importance ratings from four options:

- Very important
- Important
- Somewhat important
- Not important

Following the 18 knowledge areas respondents were asked: *“To what extent did the list provided cover the areas of KNOWLEDGE required to perform the work in advanced practice of therapeutic massage and/or bodywork?”*

An invitation to “*List any MAJOR knowledge areas required by all advanced practitioners of therapeutic massage and bodywork that were not listed in this survey*” followed. This item enabled respondents to submit important knowledge areas that may not have been included in the survey.

Demographic Items

Six demographic items were included at the end of the survey to allow NCBTMB to establish how well the respondents represent the advanced practice of therapeutic massage and/or bodywork. Attrition increases as people progress through a survey, especially a long survey. If one asks the demographic questions early in the survey, it is likely that most people will complete the items, which makes it easier to judge the representativeness of the respondents. However, many people find demographic items to be invasive and they can decide not to participate when the demographic items precede the content items. Asking the content questions before the demographic questions allows one to collect the most content ratings, even though the picture of the respondent group may be less complete due to attrition. For this study, NCBTMB decided to maximize the content ratings by asking the six demographic questions at the end of the survey.

Pilot Test

The survey instrument was pilot-tested twice in July and August 2010 by the Task Force and invited colleagues representing advanced practice. Based on the pilot findings from 13 participants on the first pilot and 15 in the second pilot, minor changes were made to the survey content and design. After revisions were made, the survey was prepared for responses from the field.

Encouraging a High Survey Response Rate

To encourage participation in the survey, NCBTMB reached out to current practitioners through a number of channels. Electronic invitations to participate were sent to all NCBTMB contact lists, including schools with Assigned School Codes, Approved Providers – both individuals and organizations, and all certificants. In addition, NCBTMB reached out through individuals and groups on the social networking sites *Facebook* and *LinkedIn*. Other professional groups were also asked for their assistance publicizing the availability of the survey. The following organizations provide a sampling of those who assisted through whatever means they felt most appropriate (email blasts, online postings, etc.):

- American Massage Therapy Association
- Associated Bodywork and Massage Professionals
- Commission on Massage Therapy Accreditation
- *Massage Magazine*
- *Massage Today*

NCBTMB continually updated its announcements to professional groups and certificants regarding the advanced certification exam survey. This was done throughout the survey window. The initial survey announcement was sent on November 1, 2010. On November 15, 2010 a reminder was included with other NCBTMB news in an email to NCBTMB contacts. A final reminder was sent 8 days before the survey ended which other organizations were again urged to share. The survey closed December 15, 2010.

For the purposes of this study, the NCBTMB placed more value on ensuring access to the survey for all relevant stakeholders, than on precise calculations of the study's response rate. A communication from NCBTMB described the survey target audience as follows:

Dear NCAP Task Force and Steering Group Members,

Later today, you should be receiving an invitation to participate in the JTA. NCBTMB is eblasting this invitation to all certificants, schools with Assigned School Codes and Approved Providers. We're also spreading the word through emails to industry media and peers, and practitioners who have personally reached out and asked to be updated as we progress, with requests to share the information. The JTA is also accessible through the NCBTMB website on the home page under 'Hot Topics' and on the NCAP pages.

3.0 RESULTS

Eligibility Criteria

NCBTMB included five questions at the very beginning of the survey to address eligibility for the NCAP. The chart below shows that the majority of respondents met each of the five criteria.

The NCBTMB would like to analyze survey responses from people who meet the eligibility criteria separately from the people who do NOT meet the eligibility criteria. Please review the eligibility criteria below and indicate whether or not you meet each criterion.

Answer Options	Meet this eligibility criterion	Do NOT meet this eligibility criterion	Response Count
1. Currently certified in Therapeutic Massage (NCTM) or Therapeutic Massage and Bodywork (NCTMB).	8245	1455	9700
2. Passed an entry-level licensure examination for massage/bodywork (not from NCBTMB).	6030	3219	9249
3. Have completed at least 3,000 hours of professional massage.	7550	2086	9636
4. Have completed at least 100 hours of massage/bodywork related continuing education (live or distant).	7413	2193	9606
5. Are currently free from sanction or permanent revocation from NCBTMB or any regulatory body.	9286	324	9610
	<i>answered question</i>		9817
	<i>skipped question</i>		38

The survey data were prepared for this report by excluding the responses of people who indicated that they would not be eligible for NCAP by the following instances:

- Are NOT currently free from sanction or permanent revocation from NCBTMB or any regulatory body (#5)
- Have NOT completed at least 100 hours of massage/bodywork related continuing education (live or distant) (#4)
- Have NOT completed at least 3,000 hours of professional massage (#3)
- Indicated NOT passing an entry-level licensure examination for massage/bodywork (not from NCBTMB) AND NOT currently certified in Therapeutic Massage (NCTM) or Therapeutic Massage and Bodywork (NCTMB) (Both #1 and #2)

Although the chart above shows 9,817 respondents, the culling of ineligible people reduced the data set to 5,944 respondents.

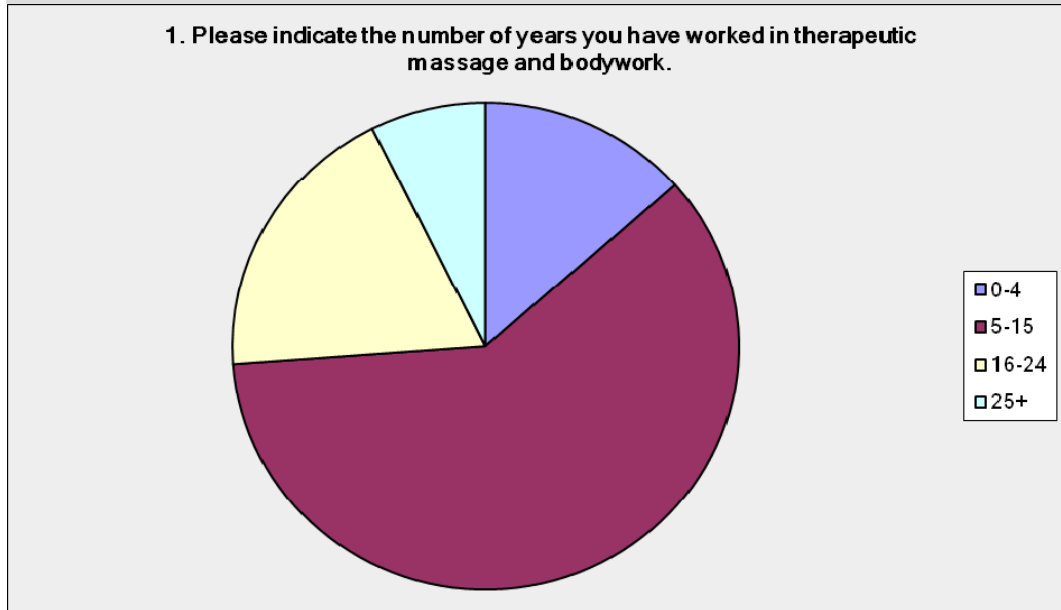
Description of Respondents

The description of respondents is based on responses to the demographic survey items. If respondents chose not to answer the demographic items, then they are not represented in the following description of participants, even though their ratings may be included in the content responses.

Number of years worked

The survey respondents represented all levels of experience, measured in years. The largest group indicated working in therapeutic massage and bodywork for 5 to 15 years.

1. Please indicate the number of years you have worked in therapeutic massage and bodywork.		
Answer Options	Response Percent	Response Count
0-4	13.5%	479
5-15	60.4%	2148
16-24	18.8%	668
25+	7.4%	262
<i>answered question</i>		3557
<i>skipped question</i>		2387



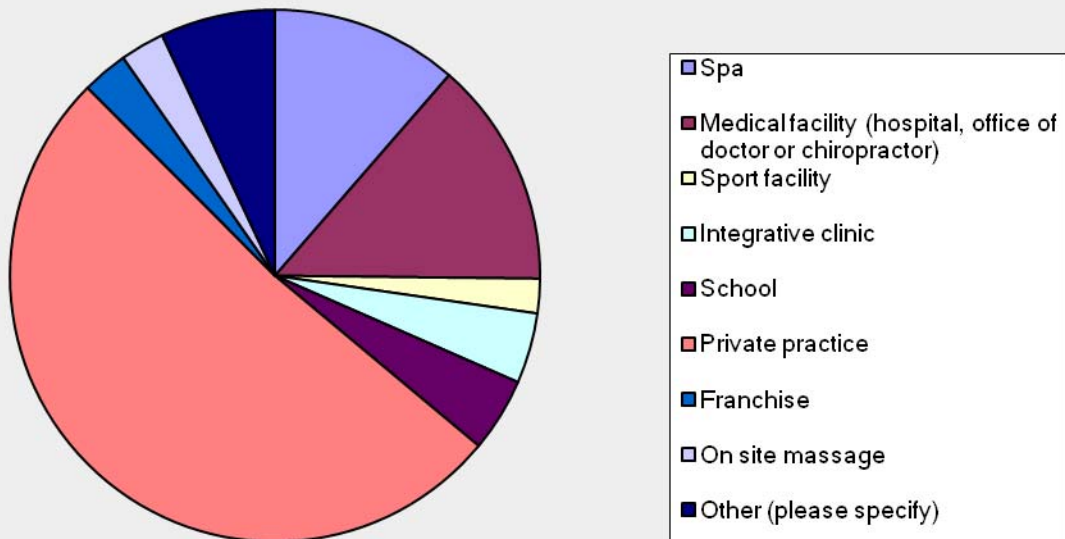
Primary Setting

Respondents were asked to indicate one primary setting in which they conduct the majority of their therapeutic massage and bodywork. All listed settings were represented by respondents, but about half of the respondents indicated a private practice setting. Medical facilities and spas were also popular responses. Write-in responses were provided by 248, which were sent to NCBTMB. Many of the responses written duplicated the descriptions listed below.

2. Please indicate the ONE primary setting in which you conduct the majority of your therapeutic massage and bodywork. (If you work in more than one setting, please choose the one where you spend the most time.)

Answer Options	Response Percent	Response Count
Spa	11.4%	405
Medical facility (hospital, office of doctor or chiropractor)	13.8%	490
Sport facility	2.1%	74
Integrative clinic	4.3%	152
School	4.5%	161
Private practice	51.5%	1835
Franchise	2.8%	100
On site massage	2.7%	96
Other (please specify)	7.0%	248
<i>answered question</i>		3561
<i>skipped question</i>		2383

2. Please indicate the ONE primary setting in which you conduct the majority of your therapeutic massage and bodywork. (If you work in more than one setting, please choose the one where you spend the most time.)



Credential

Respondents were asked to indicate their credential in therapeutic massage and bodywork. The majority of respondents indicated being licensed by state and holding the NCTMB certification. For this question, respondents were instructed to check as many options as apply.

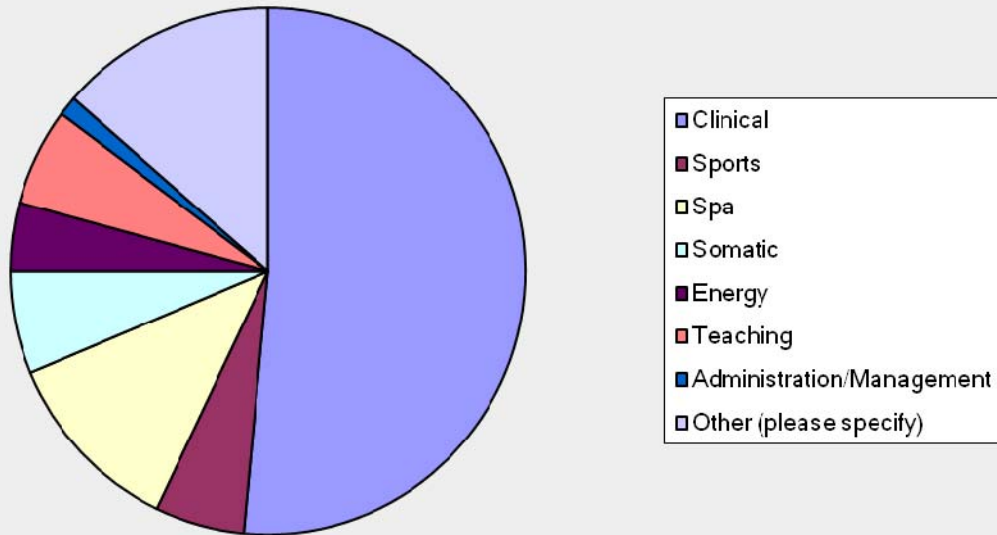
3. Please indicate your credential in therapeutic massage and bodywork. (Check as many as apply)		
Answer Options	Response Percent	Response Count
Licensed by state	81.4%	2867
Licensed locally	16.5%	582
Certified by NCBTMB: NCTM	8.1%	284
Certified by NCBTMB: NCTMB	74.8%	2634
	<i>answered question</i>	3523
	<i>skipped question</i>	2421

Primary Specialty

Respondents were asked to indicate their primary specialty, and about half of the respondents indicated a Clinical specialty. Spa was also a popular choice. Write-in responses were provided by 482 people, and were sent to NCBTMB. Many of the responses written duplicated the descriptions listed below.

4. Please indicate your primary specialty within therapeutic massage and bodywork. If you have more than one, please select the one on which you spend most of your professional time.		
Answer Options	Response Percent	Response Count
Clinical	51.5%	1826
Sports	5.6%	200
Spa	11.6%	411
Somatic	6.3%	222
Energy	4.2%	149
Teaching	6.0%	214
Administration/Management	1.2%	42
Other (please specify)	13.6%	482
	<i>answered question</i>	3546
	<i>skipped question</i>	2398

4. Please indicate your primary specialty within therapeutic massage and bodywork. If you have more than one, please select the one on which you spend most of your professional time.



Gender

Respondents were asked to indicate their gender. The majority of respondents were female.

5. Please indicate your gender:

Answer Options	Response Percent	Response Count
Male	19.5%	688
Female	80.5%	2840
<i>answered question</i>		3528
<i>skipped question</i>		2416



States

Respondents were asked to indicate where they conduct the majority of their work in therapeutic massage and bodywork. All US states were listed, along with Canada, Puerto Rico, and the US armed forces. Washington DC was not listed, but is included in these results in order to accurately reflect write-in responses. All 50 states were represented in the survey. The data shown below is an underestimate of the response counts, as attrition occurred throughout the progression of the survey. The content items appeared before the demographic items, so some participants responded to the survey but are not represented in the demographic variables. Some respondents (N=49) were unable to select only one primary location, and their write-in responses were given to NCBTMB.

6. Please indicate where you conduct the majority of your work in therapeutic massage and bodywork. (All USA states are listed, along with Canada, Puerto Rico, and US armed forces.)

Answer Options	Response Percent	Response Count
Alabama	0.6%	23
Alaska	0.6%	21
Arizona	2.4%	86
Arkansas	0.4%	14
California	8.1%	288
CANADA	0.1%	3
Colorado	2.8%	98
Connecticut	1.3%	48
Delaware	0.4%	14
Florida	9.3%	329
Georgia	1.9%	69
Hawaii	0.6%	21
Idaho	0.5%	19
Illinois	5.0%	179
Indiana	1.4%	49
Iowa	0.8%	30
Kansas	0.9%	33
Kentucky	1.3%	45
Louisiana	1.0%	35
Maine	1.0%	35
Maryland	2.3%	81
Massachusetts	3.1%	111
Michigan	3.0%	106
Minnesota	1.6%	58
Mississippi	0.3%	9
Missouri	2.0%	70
Montana	0.8%	28
Nebraska	0.4%	15
Nevada	1.8%	65
New Hampshire	1.4%	49
New Jersey	2.4%	86
New Mexico	1.8%	65
New York	3.1%	109
North Carolina	4.1%	147
North Dakota	0.2%	8

Ohio	1.6%	58
Oklahoma	0.5%	17
Oregon	2.6%	92
Pennsylvania	3.4%	122
PUERTO RICO	0.1%	5
Rhode Island	0.7%	26
South Carolina	1.3%	48
South Dakota	0.3%	9
Tennessee	1.2%	41
Texas	3.0%	105
U.S. ARMED FORCES	0.1%	4
Utah	1.4%	50
Vermont	0.4%	16
Virginia	4.0%	143
Washington	4.6%	164
WASHINGTON, DC	0.5%	17
West Virginia	0.3%	11
Wisconsin	3.4%	120
Wyoming	0.4%	13
Other (please specify)	1.4%	49
	<i>answered question</i>	3556
	<i>skipped question</i>	2388

Comments

Respondents were invited to comment at the end of the survey, and some people took the opportunity to do so. Their comments were given to NCBTMB.

3.2 Analysis of Results

Tasks

The first 7 sections of the survey listed tasks that may be performed by advanced practitioners. The tasks were presented in the seven content domains of:

1. Perform assessments
2. Facilitate treatment plan through critical thinking
3. Create career longevity
4. Build framework for advanced career
5. Create supportive environment
6. Develop advanced practice career
7. Participate in the advancement of the profession

Respondents were asked to:

1. Please read each task statement and consider it with respect to your therapeutic massage and/or bodywork practice.
2. Use the drop-down menu to indicate how **FREQUENTLY** you perform the task (Click on your preferred response.)
3. Use the second drop-down menu to indicate how **IMPORTANT** the task is (in any settings and

modalities).

Some tasks will be performed more frequently than others, and some tasks will be more important than others. It is possible that a task could be important to your work, but performed infrequently, or performed by someone else instead of you (high importance, low frequency).

There were four choices for the frequency ratings:

- Daily or weekly
- Monthly
- Annually
- Never

There were also four choices for the importance ratings:

- Very important
- Important
- Somewhat important
- Not important

There is variability in the ratings that were given by respondents. We can view the number of respondents that chose each of the four options for frequency and each of the four options for importance. The table below shows, for example, that for task #7, perform physical assessments, there were 189 respondents who said they never perform physical assessments. Yet, only 45 respondents said it is not important to perform physical assessments.

Based on a full time schedule, please indicate the frequency with which you perform each task (or would perform it if you worked full time), and how important it is to your work in therapeutic massage and bodywork. Perform Assessments

Frequency					
Answer Options	Daily or weekly	Monthly	Annually	(Never)	Response Count
1. Interpret client's nonverbal cues	5031	91	9	19	5150
2. Build rapport	4965	154	14	13	5146
3. Interview client	4608	374	115	43	5140
4. Listen to client	5107	34	3	1	5145
5. Identify client's goal	4619	487	25	13	5144
6. Assess appropriateness of massage	4814	275	29	18	5136
7. Perform physical assessments	3884	934	109	189	5116

Importance					
Answer Options	Very important	Important	Somewhat important	Not important	Response Count
1. Interpret client's nonverbal cues	4452	579	51	7	5089
2. Build rapport	4277	725	72	7	5081
3. Interview client	4031	905	130	22	5088
4. Listen to client	4892	184	12	1	5089
5. Identify client's goal	4103	896	81	5	5085
6. Assess appropriateness of massage	4214	748	99	16	5077
7. Perform physical assessments	3176	1452	377	45	5050

Each task's frequency and importance ratings were then multiplied to create a measure of criticality that would reflect both frequency and importance. The two variables counted equally in the calculation of criticality because they both had four scale points. The criticality scale extended from 1 to 16.

The average criticality rating of 12.96 for perform physical assessments is high because there were 3,884 respondents who indicated that they "perform physical assessments" on a daily or weekly basis and 3,176 who indicated that this task is very important to their work in therapeutic massage and bodywork.

Tables 1 to 3 show the mean ratings for the tasks for frequency, importance, and criticality (the combination through multiplication of frequency and importance). For Tables 1 and 2, the range of possible ratings is from 1 to 4.

Table 1. Tasks in Order of Frequency Ratings

Frequency	Domain	Task
3.99	1	4. Listen to client
3.98	2	12. Remain within scope of practice
3.97	5	45. Control the professional space during treatment
3.97	1	1. Interpret client's nonverbal cues
3.96	1	2. Build rapport
3.96	2	13. Perform massage
3.95	5	49. Respect cultural diversity of clients
3.95	5	48. Respect spiritual diversity of clients
3.95	2	14. Determine parameters for massage related to client tolerance
3.93	5	47. Uphold NCBTMB's Standards of Practice
3.93	5	46. Uphold NCBTMB's Code of Ethics
3.92	1	6. Assess appropriateness of massage
3.92	2	18. Educate the client
3.91	3	31. Practice healthy relationships
3.90	3	25. Set boundaries
3.90	5	42. Apply universal precautions
3.89	1	5. Identify client's goal
3.86	1	3. Interview client
3.85	3	23. Employ ergonomic techniques
3.83	4	37. Store and protect confidential data
3.81	2	9. Analyze appropriateness of therapeutic process
3.81	2	16. Adapt treatment protocol
3.80	3	22. Practice biomechanics
3.80	2	19. Translate unfamiliar terminology for clients
3.79	2	15. Analyze effectiveness of therapeutic process
3.78	5	44. Accommodate special needs of clients
3.76	2	8. Interpret client data
3.74	4	35. Comply with local safety regulations
3.70	3	28. Create work / life balance
3.67	3	24. Balance work load and personal finances
3.66	1	7. Perform physical assessments

Frequency	Domain	Task
3.66	3	27. Honor your own self care needs
3.64	2	17. Recognize transference
3.60	2	20. Write progress notes
3.57	2	11. Obtain informed consent
3.55	4	41. Maintain equipment according to clients' needs
3.53	4	33. Use reference materials
3.53	4	40. Provide equipment according to clients' needs
3.51	2	10. Design outcome-based treatment protocol
3.50	6	59. Accept constructive criticism
3.49	3	26. Schedule unstructured time
3.43	3	29. Practice regular self assessment procedures
3.26	2	21. Communicate across professional disciplines
3.26	4	36. Comply with building codes
3.17	6	50. Remain knowledgeable about current developments in the field
3.14	6	52. Read profession-related publications
3.12	4	39. Abide by a policy and procedure manual
3.11	3	30. Cultivate a peer support system
3.10	4	32. Integrate technology into professional practice
3.01	7	64. Facilitate public awareness of massage and bodywork
2.97	6	54. Network with peers
2.97	6	57. Receive regular massage and bodywork from a variety of practitioners
2.53	6	58. Implement career advancement strategies
2.47	6	55. Engage in mentoring relationships
2.42	4	34. Design business documents
2.32	7	60. Respond to requests from professional organizations (e.g., Calls for Comment, polls)
2.20	6	53. Take continuing education classes
2.14	7	62. Implement solutions to problems in the profession
2.11	7	65. Teach massage and bodywork
2.11	7	61. Strategize to solve problems in the profession
2.10	6	56. Monitor research-related forums
2.06	5	43. Maintain CPR certification
1.93	6	51. Attend profession-related conferences
1.88	7	63. Volunteer with a professional organization in field
1.83	7	67. Support research in massage and bodywork
1.71	4	38. Write a policy and procedure manual
1.63	7	68. Engage politically
1.39	7	66. Contribute to massage and bodywork literature

Table 2. Tasks in Order of Importance Ratings

Importance	Domain	Task
3.96	1	4. Listen to client
3.88	2	12. Remain within scope of practice
3.86	1	1. Interpret client's nonverbal cues
3.84	2	14. Determine parameters for massage related to client tolerance
3.82	1	2. Build rapport
3.82	4	37. Store and protect confidential data
3.80	1	6. Assess appropriateness of massage
3.80	5	42. Apply universal precautions
3.80	3	25. Set boundaries
3.79	1	5. Identify client's goal
3.78	2	13. Perform massage
3.76	1	3. Interview client
3.76	5	46. Uphold NCBTMB's Code of Ethics
3.75	3	31. Practice healthy relationships
3.74	5	45. Control the professional space during treatment
3.74	5	47. Uphold NCBTMB's Standards of Practice
3.72	5	49. Respect cultural diversity of clients
3.72	2	11. Obtain informed consent
3.71	5	48. Respect spiritual diversity of clients
3.70	3	27. Honor your own self care needs
3.69	2	18. Educate the client
3.68	5	44. Accommodate special needs of clients
3.68	4	35. Comply with local safety regulations
3.67	3	23. Employ ergonomic techniques
3.67	2	16. Adapt treatment protocol
3.67	2	15. Analyze effectiveness of therapeutic process
3.67	3	28. Create work / life balance
3.65	3	22. Practice biomechanics
3.63	2	9. Analyze appropriateness of therapeutic process
3.55	3	24. Balance work load and personal finances
3.54	1	7. Perform physical assessments
3.53	2	8. Interpret client data
3.53	6	53. Take continuing education classes
3.50	2	17. Recognize transference
3.49	6	59. Accept constructive criticism
3.47	2	19. Translate unfamiliar terminology for clients
3.44	3	29. Practice regular self assessment procedures
3.43	4	41. Maintain equipment according to clients' needs
3.41	2	10. Design outcome-based treatment protocol
3.40	4	36. Comply with building codes
3.39	2	20. Write progress notes
3.39	6	57. Receive regular massage and bodywork from a variety of

Importance	Domain	Task
		practitioners
3.38	6	50. Remain knowledgeable about current developments in the field
3.35	4	40. Provide equipment according to clients' needs
3.35	4	33. Use reference materials
3.28	3	26. Schedule unstructured time
3.28	7	64. Facilitate public awareness of massage and bodywork
3.25	2	21. Communicate across professional disciplines
3.17	3	30. Cultivate a peer support system
3.16	5	43. Maintain CPR certification
3.09	6	52. Read profession-related publications
3.07	4	39. Abide by a policy and procedure manual
3.01	6	58. Implement career advancement strategies
2.99	6	54. Network with peers
2.85	7	62. Implement solutions to problems in the profession
2.85	4	34. Design business documents
2.83	6	51. Attend profession-related conferences
2.83	7	65. Teach massage and bodywork
2.82	7	67. Support research in massage and bodywork
2.80	4	32. Integrate technology into professional practice
2.79	6	55. Engage in mentoring relationships
2.78	7	61. Strategize to solve problems in the profession
2.60	4	38. Write a policy and procedure manual
2.57	7	63. Volunteer with a professional organization in field
		60. Respond to requests from professional organizations (e.g., Calls for
2.56	7	Comment, polls)
2.52	6	56. Monitor research-related forums
2.33	7	68. Engage politically
2.32	7	66. Contribute to massage and bodywork literature

It is interesting to note that 5 of the top ten tasks by frequency ratings are also in the top 10 of importance ratings. Similarly, if one looks at the bottom ten tasks by frequency, there are 7 tasks that are also in the bottom ten for importance.

The combination of frequency and importance, labeled criticality, is shown in Table 3. The possible range of the criticality rating is from 16 (frequency = daily/weekly and importance = very important) to 1 (frequency = never and importance = not important).

Table 3. Tasks in Order of Criticality Ratings

Criticality	Domain	Task
15.80	1	4. Listen to client
15.46	2	12. Remain within scope of practice
15.32	1	1. Interpret client's nonverbal cues

Criticality	Domain	Task
15.17	2	14. Determine parameters for massage related to client tolerance
15.14	1	2. Build rapport
14.95	2	13. Perform massage
14.93	1	6. Assess appropriateness of massage
14.86	5	45. Control the professional space during treatment
14.82	3	25. Set boundaries
14.81	5	42. Apply universal precautions
14.74	5	46. Uphold NCBTMB's Code of Ethics
14.73	1	5. Identify client's goal
14.69	5	49. Respect cultural diversity of clients
14.67	5	47. Uphold NCBTMB's Standards of Practice
14.66	3	31. Practice healthy relationships
14.66	5	48. Respect spiritual diversity of clients
14.63	4	37. Store and protect confidential data
14.50	1	3. Interview client
14.49	2	18. Educate the client
14.16	3	23. Employ ergonomic techniques
14.00	2	16. Adapt treatment protocol
13.92	2	15. Analyze effectiveness of therapeutic process
13.91	5	44. Accommodate special needs of clients
13.86	3	22. Practice biomechanics
13.83	2	9. Analyze appropriateness of therapeutic process
13.77	4	35. Comply with local safety regulations
13.58	3	28. Create work / life balance
13.53	3	27. Honor your own self care needs
13.27	2	8. Interpret client data
13.26	2	11. Obtain informed consent
13.16	2	19. Translate unfamiliar terminology for clients
13.05	3	24. Balance work load and personal finances
12.96	1	7. Perform physical assessments
12.74	2	17. Recognize transference
12.21	2	20. Write progress notes
12.20	4	41. Maintain equipment according to clients' needs
12.19	6	59. Accept constructive criticism
11.97	2	10. Design outcome-based treatment protocol
11.83	4	40. Provide equipment according to clients' needs
11.82	4	33. Use reference materials
11.78	3	29. Practice regular self assessment procedures
11.47	3	26. Schedule unstructured time
11.06	4	36. Comply with building codes
10.73	6	50. Remain knowledgeable about current developments in the field
10.60	2	21. Communicate across professional disciplines
10.06	6	57. Receive regular massage and bodywork from a variety of practitioners

Criticality	Domain	Task
9.87	3	30. Cultivate a peer support system
9.86	7	64. Facilitate public awareness of massage and bodywork
9.70	6	52. Read profession-related publications
9.56	4	39. Abide by a policy and procedure manual
8.89	6	54. Network with peers
8.68	4	32. Integrate technology into professional practice
7.79	6	53. Take continuing education classes
7.62	6	58. Implement career advancement strategies
6.90	6	55. Engage in mentoring relationships
6.89	4	34. Design business documents
6.49	5	43. Maintain CPR certification
6.11	7	62. Implement solutions to problems in the profession
5.97	7	65. Teach massage and bodywork
5.96	7	60. Respond to requests from professional organizations (e.g., Calls for Comment, polls)
5.87	7	61. Strategize to solve problems in the profession
5.47	6	51. Attend profession-related conferences
5.31	6	56. Monitor research-related forums
5.17	7	67. Support research in massage and bodywork
4.83	7	63. Volunteer with a professional organization in field
4.46	4	38. Write a policy and procedure manual
3.80	7	68. Engage politically
3.21	7	66. Contribute to massage and bodywork literature

In addition to analyzing the frequency and importance of all listed tasks, the survey explored the possibility that tasks were omitted from the list. The survey addressed this possibility through the question shown below. Over 93% of the respondents indicated that the survey completely or adequately covered the tasks performed in their work in therapeutic massage and bodywork. Fewer than 7% of respondents indicated that the survey tasks inadequately covered their work.

1. To what extent did this survey cover the TASKS you perform in your therapeutic massage and bodywork practice?		
Answer Options	Response Percent	Response Count
Completely covered	29.7%	1061
Adequately covered	63.7%	2279
Inadequately covered	6.7%	238
answered question		3578
skipped question		2366

Respondents were given the opportunity to list any major tasks performed by advanced practitioners of therapeutic massage and bodywork that were not listed in this survey. Although only 238 respondents indicated that the tasks were inadequately covered, 1021 respondents added write-in responses. Initial consideration of the suggested tasks did not lead to widespread support for these additional tasks. This conclusion was confirmed by the high percentage of respondents who indicated that the survey

completely or adequately covered the tasks performed in their work in therapeutic massage and bodywork. The complete list of additional suggested tasks was provided to NCBTMB.

Knowledge

Ratings for the 18 knowledge areas were on a four-point scale of importance, i.e. the scale extends from 1 to 4. There is variability in the ratings that were given by respondents. Table 4 shows the mean importance ratings, prioritized with the highest first, "Touch skills." The lowest-rated knowledge area, Technology literacy, received a mean rating of 2.85, which falls between Somewhat important (2) and Important (3).

Table 4. Prioritized Importance Ratings for Knowledge

Importance	Knowledge Prioritized	
3.93	18. Touch skills	4 = Very important
3.90	5. Professional conduct	3 = Important
3.86	4. Ethics	2 = Somewhat important
3.83	2. Communication skills	1 = Not important
3.76	6. Scope of practice	
3.75	7. Standards of practice	
3.75	17. Assessment skills	
3.64	3. Problem-solving processes	
3.44	9. How to self assess	
3.42	10. Massage and bodywork modality literacy	
3.37	15. Business skills	
3.37	14. Practice settings for massage and bodywork	
3.34	1. Life sciences	
3.11	13. Complementary Alternative Medicine (CAM) literacy	
3.05	16. Products used in practice	
3.01	11. Research literacy	
2.87	8. Massage organizations	
2.85	12. Technology literacy	

In addition to analyzing the importance of all listed knowledge areas, the survey explored the possibility that knowledge areas were omitted from the list. The survey addressed this possibility through the question shown below. Over 96% of the respondents indicated that the survey completely or adequately covered the knowledge areas required for the work in advanced practice of therapeutic massage and/or bodywork. Fewer than 4% of respondents indicated that the survey knowledge areas inadequately covered their work.

1. To what extent did the list provided cover the areas of KNOWLEDGE required to perform the work in advanced practice of therapeutic massage and/or bodywork?		
Answer Options	Response Percent	Response Count
Completely covered	35.0%	1227
Adequately covered	61.5%	2156
Inadequately covered	3.5%	123

<i>answered question</i>	3506
<i>skipped question</i>	2438

Respondents were given the opportunity to list any knowledge areas required to perform the work in advanced practice of therapeutic massage and/or bodywork that were not included in the survey. Although only 123 respondents indicated that the knowledge areas were inadequately covered, 506 respondents added write-in responses. Initial consideration of the suggested knowledge areas did not lead to widespread support for these additional knowledge areas. This conclusion was confirmed by the high percentage of respondents who indicated that the survey completely covered or adequately covered the tasks performed in their work in therapeutic massage and/or bodywork. The complete list of additional suggested knowledge areas was provided to NCBTMB.

Using the Data

The job analysis results will be utilized to delineate the test specifications for the National Certification for Advanced Practice. By using the data collected through this survey process, NCBTMB ensures that the certification examination reflects the current practice of the field. Once developed, the test specifications will be posted on the NCBTMB website, and will be available for public comment for a two-week period.

4.0 REFERENCES

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1999) *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.

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Raymond, M.R. (2002). A practical guide to practice analysis for credentialing examinations. *Educational Measurement: Issues & Practice*, 21, 25-37.

5.0 APPENDICES

Appendix A NCAP Task Force
Appendix B Advanced Certification Job Analysis Study Panel
Appendix C Job Analysis Meeting Agenda

Appendix A: NCAP Task Force



NCAP Task Force

Suzanne Costa (Maryland) – 10 years in the field
Highest education achieved: some college
Primary modality: deep tissue/sports massage
Areas of expertise: educator, on-site massage

Jackie Lynne Derby (Michigan) – 14 years in field
Highest education achieved: BA in Health Service Administration (2010)
Primary modality: sports and medical massage
Areas of expertise: sports and medical massage

David Fazzino (Alaska) – 8 years in the field
Highest education achieved: PhD, JD
Primary modality: sports massage
Areas of expertise: educator, Zen Shiatsu, sports massage

Sandy Fritz (Michigan) – 20+ years in the field
Highest education achieved: MS
Primary modality: primarily author/educator
Areas of expertise: educator/school owner, current NCBTMB CE Approved Provider/lecturer, author

Melissa Goldsmith (Washington) – 10 years in the field
Highest education achieved: AFA pursuing BA
Primary modality: Structural Integration, Deep Tissue, Postural Assessment, Stretching, and Sports Massage
Areas of expertise: private practice, small business management and start-up, personal growth facilitator

DarlaJean Griffiths (Florida) – 22 years in the field
Highest education achieved: BA
Primary modality:
Areas of expertise: educator, part time MT, small business owner

Nancy Haller (Washington) – 14 years in field
Highest education achieved: MA
Primary modality: medical massage
Areas of expertise: Feldenkrais, medical massage, animal massage, current NCBTMB CE Approved Provider

Kimberly Hieber

Xavier Johnson (Illinois) – 8 years in the field
Highest education achieved: MA in Divinity
Primary modality: medical massage
Areas of expertise: private practice, massage therapy business start-up, massage for AIDS/HIV/diabetes/cancer, labor massage, orthopedic, sports, education

Eeris Kallil (Colorado) – 22 years in the field
Highest education achieved: High School
Primary modality: medical massage
Areas of expertise: cancer survivor, CE class on massage for cancer recovery, private practice

Bridget Kimsey (Massachusetts, registered member of the U.S. federally recognized Delaware Tribe of Indians) – 14 years in field

Highest education achieved: BFA

Primary modality: yoga teacher, Therapeutic Integrative Massage, energy medicine work

Areas of expertise: Lenape/ First Nations approach to healing, yoga, massage, reiki, energy medicine, aromatherapy

Craig Knowles (Georgia) – 13 years in the field

Highest education achieved: Vo-Tech certificate

Primary modality: medical, sports massage

Areas of expertise: currently sits on NCBTMB's E&S committee, personal trainer, sports massage, medical massage, NMT, educator

Laura Nelson (Alabama) – 12 years in field

Highest education achieved: Masters in Education

Primary modality: deep tissue

Areas of expertise: educator

Pamela Pennington (Oregon) – 10 years in the field

Highest education achieved: some college

Primary modality: medical massage

Areas of expertise: lymphedema massage, medical massage, has 500+ hours towards medical advanced credential

Mary Kathleen Rose (Colorado) – 20+ years in field

Highest education achieved: BA

Primary modality: medical massage

Areas of expertise: hospice, current NCBTMB CE Approved Provider, educator, medical massage

Becky Stoermann-Snelson (Kansas) – 8 years in the field (+ 32 years as RN)

Highest education achieved: BS in Natural Health

Primary modality: pregnancy massage

Areas of expertise: pregnancy massage, educator

Tamela Voorhees (Nevada) – 10 years in the field

Highest education achieved: some college

Primary modality: massage for pain relief

Areas of expertise: educator, massage for pain relief, hot stone massage, volunteer massages

Darrell Webster (Utah) – 10 years in the field

Highest education achieved: some college

Primary modality: NMT

Areas of expertise: educator, NMT, musculoskeletal anatomy, financial background

Kristal Joy Wyatt (Nevada) – 17+ years in the field

Highest education achieved: Associates in Science

Primary modality: massage for pain relief, educator, aromatherapy

Areas of expertise: medical massage, education

Julia Zarcone (California) – 15+ years in the field

Highest education achieved: MA

Primary modality: educator/lecturer/author/Rosen Method

Areas of expertise: Integrative health studies, educator, author

Appendix B: Advanced Certification Job Analysis Study Panel

***NCBTMB's Job Analysis Study for ADVANCED CERTIFICATION
Panel for October 20-21, 2009 Meeting***



Facilitator: Lynn Webb, Ed.D., Pearson VUE

NCBTMB's Advanced Certification Job Analysis Study Panel

Michele Baker
Neal Delaporta
David Fazzino
Sandy Fritz
Xavier Johnson
Bridget Kimsey
Laura Nelson
Pamela Pennington
Monica Reno
Julia Zarcone

Elizabeth Langston, CAE



Appendix C: Job Analysis Meeting Agenda



NCBTMB ADVANCED CERTIFICATION JOB TASK ANALYSIS PANEL MEETING

***October 20-21, 2009
Oakbrook Terrace, IL
Agenda***

Tuesday, October 20, 2009

8:30 a.m.	Welcome, introductions
9:00	Orientation and discussion
10:45	Break
11:00	Overview of Job Analysis Study
12:30 p.m.	Lunch
1:30	Delineate major common job responsibilities
3:00	Delineate tasks of largest common job responsibility
3:30	Break
3:45	Split into 2 workgroups
	Group 1 – Delineate tasks of some major common job responsibilities
	Group 2 – Delineate tasks of other major common job responsibilities
5:00	Adjourn

Wednesday, October 21, 2009

6:30-7:30 a.m.	Breakfast at Embassy Suites (provided by Hotel)
7:30	Hotel checkout for anyone departing today
7:30	Shuttle to NCBTMB Headquarters (provided by Hotel)
7:45	Review/refine work of Day 1 in full group
10:15	Knowledge needed to perform tasks
12:15 p.m.	Lunch break and tour of facility
1:15	Demographics
3:00	Phrasing the survey question
4:00	Evaluation/ Adjourn
	Shuttle to hotel if staying; or departure to airports