APPLIED MEASUREMENT PROFESSIONALS, INC.

A National Role Delineation Study of the Perinatal Loss Professional

Conducted for the

National Board for Certification of Hospice and Palliative Nurses

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Introduction

The purpose of this study was to identify the responsibilities of perinatal loss professionals as a first step in the development of a potential job-related certification examination. The National Board for Certification of Hospice and Palliative Nurses (NBCHPN®) requested the services of Applied Measurement Professionals, Inc. (AMP) to design and conduct a study that would provide the support necessary to develop specifications upon which a content valid certification examination could be built.

The title of this study includes the use of the term role delineation study. However, other equally appropriate terms could be used to describe this study, for example, job analysis or practice analysis. A role delineation study suggests breadth of focus; however, the term role delineation has sometimes been used to describe a strictly judgmental process that does not make use of the data collection methodology used in the present study. While these three terms could be considered synonymous, there may be some subtle differences. Job analysis is the traditional technical term that is consistent with traditional standards of practice used to describe validation procedures for certification examinations. Practice analysis is a contemporary term that provides an appropriate description of the present study, as practice analysis suggests that the focus of a study is broader than a single job. Again, role delineation is the term primarily used in this report, although the terms should be considered to be interchangeable in relation to this study.

The NBCHPN® appointed a Role Delineation Study Advisory Committee (AC) to conduct the activities necessary to identify responsibilities of perinatal loss professionals and to develop Examination Specifications. The AC was reflective of the perinatal loss professions in all relevant respects, for example: geographic, professional area, level of responsibility, educational background, gender, and work setting. All AC members had demonstrated expertise in their respective areas of specialization. AMP is grateful to these committee members for their guidance and expertise, as well as the time committed to this project. Without the AC's effort and expertise across the various specialty areas, this project would not have been accomplished. In addition, special mention should be made of the valuable contributions of NBCHPN® staff, especially Director of Certification, Sandra Lee Schafer RN, MN, AOCN®.

In the next section of this final report, the methodology of the study is discussed. In particular, the design of the survey instrument is described, including the method of defining tasks, professional issues, rating scales, and demographic questions. Also discussed in the methodology section is the sampling plan and distribution of the web-based survey. The results section of this report discusses the respondents and their demographics, the adequacy of the instrument, and a summary of the responses. The final section of this report discusses the development of the Examination Specifications based on these data.

Methodology

The AC considered various resource materials that could be useful in gaining an understanding of the responsibilities of perinatal loss professionals, including job descriptions, journal articles, performance evaluation forms, and textbooks. Other materials assembled prior to the first meeting of the AC included orientation materials, a draft of rating scales used for role delineation, and a timeline for conducting the study. Background information was provided regarding both the role delineation process (and its relationship to the examination development process) and NBCHPN®'s role in the continuing development of the content validity of a certification examination. Seven major tasks were initiated during the AC meeting held in August 2011. These steps included:

1. Defining the target practitioner
2. Developing a sampling plan
3. Identifying tasks for the survey instrument
4. Identifying knowledge domains
5. Determining the rating scales
6. Determining the relevant demographic variables of interest
7. Integrating demographics, rating scales, and tasks into a survey instrument

A summary of each activity follows.

1. Defining the target practitioner

For the purposes of this study, the NBCHPN® adopted the following target practitioner definition of a perinatal loss professional:

> *A perinatal loss professional works within a healthcare environment to help to facilitate care of patients experiencing a pregnancy loss or infant death.*

2. Developing a sampling plan

The AC considered various methods of identifying individuals who consider themselves to be professionals caring for patients experiencing perinatal loss, or who would be knowledgeable about the duties of professionals caring for patients experiencing perinatal loss. It was determined that invitation e-mails containing a link to the online role delineation study would be distributed by NBCHPN® to professionals listed in the databases of NBCHPN® and the Hospice and Palliative Nurses Association (APRNs/RNs and affiliate members), Resolve Through Sharing, National Share Pregnancy and Infant Loss Suport, Inc, Center to Advance Palliative Care, End-of-Life Nursing Education Consortium, Perinatal Hospice Group, and Alliance of Perinatal Bereavement Support Facilitators - Chicago Region.

3. Identifying tasks for the survey instrument

The draft list was thoroughly discussed during the meeting held in August 2011. Tasks representing individual job responsibilities were modified, added, and removed, and all tasks were verified as being appropriately linked to the associated knowledge domain (e.g., Concepts of Perinatal Loss). At the conclusion of this meeting, a draft list that included 107 tasks was developed for review by the AC. After review of the draft task list, the AC authorized development of the final survey. The final survey list included 108 tasks.

4. Identifying knowledge domains

The committee identified five knowledge domains, under which the 108 tasks were categorized into subcategories. The AC unanimously agreed on the linkage of each task to the respective knowledge domain. The domains were as follows:

1. Concepts of Perinatal Loss
2. Psychosocial Care
3. Clinical Support
4. Bereavement Support
5. Professional Practice

5. Determining the rating scales

The committee discussed the advantages and disadvantages of various rating scales that could be used in responding to the tasks. AMP suggested the use of a single significance scale. This single scale is intended to solicit judgments that combine the importance of a task with the frequency with which it is addressed in practice, after first considering the extent to which it is necessary to the performance in practice. The significance scale adopted by the AC is shown below.

How significant is this activity to your practice as a perianal loss professional?

0 = Not necessary for my job
1 = Minimally significant
2 = Significant
3 = Critically significant

6. Determining the relevant demographic variables of interest

The committee identified 19 relevant and important demographic survey variables. Since this was a national study, it was important to identify the respondents' geographic regions of employment. Other demographic questions were written to assess characteristics of the representativeness of the respondents, including years practicing in current profession, years caring for patients experiencing perinatal loss, highest degree completed, licenses and certifications held, educational programs completed, role, hours per week spent in the role, percent of time spent caring for patients experiencing perinatal loss, work setting, type of community, would take perinatal loss exam or not, value of the certification to the organization, fee paid by organization, age, gender, and racial and ethnic background.

7. Integrating demographics, rating scales, and tasks into a survey instrument

After the first meeting, all components of the survey (demographics, rating scales, and 108 tasks) were combined and designed into a draft survey instrument. As a pilot test, this draft was distributed to the AC and other individual content experts via an e-mail message, which included a link to the survey. Following a review of the comments, the final survey with 108 tasks was prepared and distributed via an e-mail invitation.

Results

The survey was accessible via the Internet through the response deadline of November 28th, 2011. Of the 5,122 e-mail invitations distributed, 46 e-mails were returned due to undeliverable addresses. A total of 861 respondents accessed the survey, providing a raw response rate of approximately 17%. After reducing the sample size for participants who completed 0% of the survey (no ratings provided for any tasks) and participants who indicated not practicing as a perinatal loss professional (n=114), a total of 747 responses were considered to be valid responses, for a corrected response rate of 15%.

Demographic Information

Based on discussion with the AC, the demographic data were as expected, and judged to be representative of the profession. Inspection of the known demographic responses from those that were eliminated from the valid respondent group indicated no important difference in those who were dropped compared to those who were retained. In addition to ensuring that the respondent group was representative, it was important to evaluate whether responses were received in appropriate numbers from relevant subgroups. The AC determined that a sufficient response was received from relevant subgroups for subsequent analysis.

By way of a summary, the demographic results were generally as expected. Although some of the analyses documented later in this report will investigate differences among various demographic groups, a description of the typical respondent may be of interest. This individual could generally be described as follows:

> The typical respondent is a female Caucasian in her 50s who works full time as a nurse in an urban hospital or health care system. She is from the Midwest, holds a Bachelor's Degree, and has completed RTS bereavement training. She has been a Registered Nurse for 20 to 30 years and has experience in perinatal loss for more than 20 years. She usually spends 2-5% of her time in caring patients experiencing perinatal loss. If certification was available for perinatal loss professionals, she would take the exam. Her organization might find the certification to be of value, but not necessarily will pay for the examination fee.

The AC concluded that this information is consistent with the population of perinatal loss professionals, and that a sufficient number of responses in relevant subgroups were received to facilitate subsequent analysis.

Adequacy of the Instrument

Approximately 97% of those responding to the survey felt that the role delineation study at least adequately addressed the responsibilities of perinatal loss professionals. Another aspect of the adequacy of the instrument relates to its reliability. Task reliability and rater reliability were both evaluated.

Task reliability estimates show to what extent each scale "hangs together." A high task reliability value may indicate that the scale represents a consistent collection of tasks. Rater reliability estimates are more important and indicate the degree to which raters agree on the significance of an item. Overall, the calculated reliability estimates are quite acceptable.

Task Ratings

Descriptive data for each of the 108 tasks were reviewed. While relative comparisons of the data are appropriate (e.g., when comparing tasks, the task with the higher mean rating could be said to be more significant to practice), it is important to consider the absolute meaning of the ratings. The reader should bear in mind that the response options (also known as anchors) for the significance scale were: 0) Not necessary for my job, 1) Minimally Significant, 2) Significant, and 3) Critically Significant.

The mean of the ratings is based on all ratings of significance and does not include the zero (i.e., not necessary) ratings. Therefore, the mean significance ratings represent the level of significance judged by the respondents who believed that the task was necessary to practice.

The mean significance ratings ranged from 1.70 to 2.82. The mean rating of significance, calculated across all 108 tasks, was 2.46, with a standard deviation of 0.24. A grouped frequency distribution of the overall mean task ratings for the 108 tasks is shown in Table 1.

Table 1. Distribution of Mean Task Ratings

Mean Rating	*N*	%
Greater than 2.75	9	8.33%
2.50-2.74	45	41.67%
2.25-2.49	37	34.26%
2.00-2.24	9	8.33%
1.75-1.99	6	5.56%
1.50-1.74	2	1.85%
Less than 1.50	0	0.00%
Total	108	100.00%

Ratings of Various Demographic Groups

The demographic questions were included in the survey to provide descriptive information about the respondents. For some demographic questions, however, it is important to ensure that individuals from different subgroups view the tasks required of the perinatal loss professional similarly, and that the ratings exceed a level of significance sufficient to warrant inclusion on a national examination.

Examination Specifications

In developing Examination Specifications (or a Detailed Content Outline), committee judgment must be used in interpreting the data gathered through the role delineation study. For purposes of this report, the Examination Specifications will be defined as the confidential document that is used to guide the examination development process, and includes sufficient detail to ensure the development of comparable examination forms. The Detailed Content Outline can be defined as a subset of the Examination Specifications; it is a document that includes a detailed listing of content available in outline form for candidates and item writers. Every examination item must be linked to the Detailed Content Outline as a first step in meeting the Examination Specifications during the examination development process.

Of particular importance to a national certification examination program is that the Examination Specifications must appropriately reflect the responsibilities of all groups who will participate in the certification program. Therefore, it is important to ensure that neither the Examination Specifications nor the resulting examinations include tasks that are not considered to be important responsibilities of the individuals for whom the examination is intended.

Application of Decision Rules and Criteria

Several decision rules were proposed for consideration by the AC in determining criteria by which tasks should be considered *ineligible* for assessment, and therefore excluded from the Detailed Content Outline. The general areas for consideration were discussed by the AC during web meetings held in January 2012, and were based on a variety of the demographic characteristics included in the survey.

The decision rules adopted by the AC, the order in which they were applied, and their impact on exclusion of tasks are discussed in detail in the following section, summarized in Table 2, and described in the paragraphs that follow. Applying the decision rules ensures that the resulting examination reflects the responsibilities of perinatal loss professionals, as judged by a demographically representative group of perinatal loss professionals.

As a result of implementing the decision rules, nine (9) tasks were removed from the task list, and three (3) tasks were combined into one single task. A rule of work setting was considered by the committee, but decided not to use as an exclusion rule. It was noted that potential candidates for the exam who do not work in hospital or health care system shoud take the exam with caution. Ninety-seven (97) tasks out of the original 108 tasks (90%) remaining eligible for assessment, from which a Detailed Content Outline and Examination Specifications could be generated. Following discussion, it was decided that no additional tasks were needed to appropriately reflect practice or would be needed to construct perinatal loss examination forms. The final Detailed Content Outline is shown in Appendix A.

Confirmation of the Link between Tasks and Knowledge Domains

When developing the survey the AC determined that each task was clearly linked to the associated knowledge domain. During the meetings in January 2012, the AC reconfirmed that linkage. Item writers will be instructed to classify items according to a specific task, and to ensure that the item is associated with the major knowledge domain. When approving items, the Examination Development Committee (EDC) will similarly confirm that linkage.

Table 2. Decision Rules and Criteria to Remove Tasks

Decision Rule *The task must be:*	Criteria	Tasks Eliminated
• part of practice	More than 55% of the respondents reporting a non-zero rating	No tasks
• significant to practice	Overall mean rating at least 2.00	Six
• significant throughout the United States	Mean rating at least 2.00 in all 4 US regions	No additional tasks
• significant regardless of years of experience in current profession	Mean rating at least 2.00 in all 5 experience groups	No additional tasks
• significant regardless of years of experience in perinatal loss	Mean rating at least 2.00 in 4 out of 5 experience groups	No additional tasks
• significant regardless of educational preparation	Mean rating at least 2.00 in 4 out of 5 subgroups	No additional tasks
• significant regardless of role	Mean rating at least 2.00 in 3 out of 4 specific groups: nurse; social worker; chaplain; therapist, counselor, psychologist, or child life specialist	Three
• significant regardless of hours per week practicing in current role	Mean rating at least 2.00 in all 3 subgroups	No additional tasks
• significant regardless of percent of time spent in perinatal loss	Mean rating at least 2.00 for 5 subgroups that spent more than 2% caring for perinatal loss	No additional tasks
• significant regardless of community type	Mean rating at least 2.00 for all 3 subgroups	No additional tasks

* Task retained by unanimous committee agreement.
** Task removed by unanimous committee agreement.

Development of Final Detailed Content Outline and Examination Specifications

For the potential perinatal loss examination, a Detailed Content Outline can be defined as a detailed listing of content available in outline form for candidates and item writers. The final 97 tasks were organized into the Detailed Content Outline, which may be used by candidates for preparation for the examination. The Examination Specifications remain confidential and are only used for examination development purposes. Examination Specifications incorporate the detailed content of the Detailed Content Outline, and also include other information needed to ensure the development of comparable examination forms, as discussed in this section.

The AC determined that the remaining 97 tasks could be appropriately assessed by way of a total of 100 multiple-choice examination items to ensure appropriate content coverage. Item writers will be advised that any knowledge area underlying a task may be appropriate for assessment, and that the item should be directly related to the task, at an appropriate level of cognitive performance.

The AC determined that all items would be classified as requiring recall, application, or analysis on the part of the candidate. For purposes of such classification, the AC adopted the definitions shown in Table 3.

Table 3. Cognitive Level Definitions

Level	Definition
Recall	Requires recall or recognition of specific facts or concepts which generally does not vary relative to the situation.
Application	Requires the comprehension, interpretation, or manipulation of concepts or information to a given situation.
Analysis	Requires integration or synthesis of a variety of concepts or information to problem solve, integrate or make judgments about a situation (i.e., evaluating and rendering judgments on complex problems with many situational variables).

After agreeing on the number of items on the examination, the AC discussed how these items should be distributed across the knowledge domains. Based on the significance of the task ratings and the breadth of content within each major knowledge domain, the committee members used an iterative process to determine the number of items for each knowledge domain. The Detailed Content Outline with percent of items for each knowledge domain is shown in Appendix A.

During the present study, a variety of approaches were considered to establish the cognitive level distributions within the minor domains. The unanimous agreement of the AC reached during the January 2012 meeting regarding the cognitive level distribution targets adopted for the Examination Specifications.

Appendix A

Detailed Content Outline

Perinatal Loss Detailed Content Outline	%
1. Concepts of Perinatal Loss	**23%**
A. Unique aspects of care 1. Identify unique aspects of care for these types of perinatal loss: a. miscarriage (under 20 weeks completed gestation) b. stillbirth (over 20 weeks completed gestation) c. neonatal death d. infant death e. loss of one or more fetuses in a multiple gestation f. Other (e.g., ectopic pregnancy, termination of pregnancy or selective reduction, infertility and its treatment) 2. Identify the importance of these related aspects of perinatal loss: a. subsequent pregnancy following perinatal loss b. traumatic birth experience c. maternal death d. teenage perinatal loss e. more than one perinatal loss **B. Clinical Decision Making** 1. Assess patient's knowledge of the baby's condition and prognosis 2. Offer information for decision making from the time of diagnosis 3. Co-create a birth plan and neonatal advance care plan: a. treatment options for the patient (e.g., continuation or termination of pregnancy, medical treatment, surgical intervention) b. plan of care for baby (e.g., goals, pain management, resuscitation options, interventions) c. environment (e.g., location of birth, presence of family unit, setting of the room) d. communication preferences e. memory making (e.g., being with baby, ritual, photos, DVDs) f. end-of-life care and disposition plans 4. Facilitate ongoing decision making from the time of birth	
2. Psychosocial Care	**28%**
A. Relationship-Based Support 1. Demonstrate compassionate presence (e.g., limit distraction, focus on patient) 2. Learn the meaning of the pregnancy and loss for the patient to help guide care 3. Allow for individualized expression of feelings (e.g., unmet emotional needs, anger, resentment, powerlessness, lack of control) 4. Legitimize the loss 5. Validate the patient's grief response 6. Allow time for reflection and questions 7. Provide continuing support for shifting parental hopes and goals 8. Provide psychosocial education regarding perinatal loss and grief 9. Provide education regarding continuing bonding	

Perinatal Loss Detailed Content Outline	%
B. Patient Support Needs 1. Identify and respond to needs related to: a. interpersonal relationship issues (e.g., parental conflict, divorce) b. psychological sequelae (e.g., anxiety, depression, post-traumatic responses) c. possible range of grief response to perinatal loss d. unique grief needs (e.g., maternal, paternal, grandparents, same sex parents, single parents) e. complicated grief **C. Sibling Support** 1. Assess and identify developmental stages of siblings 2. Identify and respond to the grief of siblings 3. Access resources to meet the needs of siblings (e.g., child life therapy, counseling) 4. Educate parents regarding sibling grief (e.g., provide age-appropriate information) 5. Facilitate sibling interactions with the baby **D. Honoring Relationships** 1. Facilitate opportunities for gathering keepsakes (e.g., photographs, journals, hand/foot prints or hand/foot molds) 2. Identify strategies for safekeeping of mementos when the patient chooses not to receive them at the time of death 3. Introduce options and facilitate patient choices for interactions with the baby (e.g., seeing, touching, holding, bathing) **E. Communication with the Patient** 1. Demonstrate effective use of communication skills (e.g., active listening, silence, nonverbal and verbal) 2. Identify and respond to communication barriers 3. Encourage ongoing conversation about: a. the baby b. the circumstances c. the patient's options 4. Respond to the patient's questions (e.g., use resources, make referrals) 5. Use communication skills appropriate for developmental stage (e.g. adolescent, developmentally challenged) 6. Assess and respond to communication issues related to family systems and dynamics	
3. Clinical Support	**26%**
A. Coordinating Care using an Interdisciplinary Team Approach 1. Identify and collaborate with members of the interdisciplinary team 2. Implement the birth plan to ensure provision of compassionate care 3. Participate in care conferences 4. Ensure the comfort of the baby at the end of life	

Perinatal Loss Detailed Content Outline	%
5. Prepare patient regarding signs of imminent death 6. Evaluate care of the baby to redirect goals and facilitate shifts in care (e.g., resuscitative status, withdrawal of care, allow natural death) 7. Manage the environment to maximize comfort through birth and death 8. Use a guided approach to facilitate patient interactions (e.g., offering choices, modeling behaviors) 9. Ensure the safe handling and disposition of fetal tissue 10. Ensure dignified care and safe handling of infant remains 11. Discuss disposition options (e.g., fetal tissue, burial, cremation, funeral options, visitation, direct release of body to funeral director, transport of remains, organ tissue donation) 12. Respond to unexpected findings 13. Respond to medical emergencies 14. Access and coordinate care with perinatal palliative care and perinatal hospice teams **B. Spiritual and Cultural Care** 1. Identify and respond to spiritual beliefs of the patient 2. Use strategies to honor spiritual preferences (e.g., rituals, prayer) 3. Use strategies to honor cultural practices (e.g., rituals, customs, care of the body) 4. Identify and respond to spiritual distress (e.g., guilt, remorse, loss of hope, lack of spiritual resources) 5. Facilitate access to resources for spiritual care (e.g., patient's spiritual care provider, facility spiritual leader)	
4. Bereavement Support	**12%**
A. Resource Management 1. Identify and provide resources from: a. multimedia sources (e.g., Internet) b. written grief resources (e.g., support packets, call-back phone number, bereavement literature) c. community supportive services 2. Discuss health related behaviors for the patient (e.g., physical exercise, nutrition, meaningful music, counseling, meditation, prayer, relaxation tapes, or massage) 3. Make referrals to pregnancy and infant loss support groups 4. Serve as a liaison and provide education for hospitals, hospice, and community health care professionals regarding perinatal loss **B. Follow-up** 1. Identify recommended time frame for patient bereavement follow up 2. Participate in bereavement follow-up support activities (e.g., memorial services, celebration of life, cards or letters, phone calls) 3. Assess emotional status of patient during follow-up care 4. Make referrals to community resources (e.g., support groups, outpatient therapy)	

Perinatal Loss Detailed Content Outline	%
5. Identify and respond to the patient exhibiting high-risk situational cues requiring immediate intervention (e.g., harm to self or others, neglect of self-care, functional impairment)	
5. Professional Practice	**11%**
A. Practice Issues 1. Incorporate perinatal loss guidelines or standards of care into practice 2. Identify and respond to ethical issues 3. Facilitate completion of forms and legal documents required for early pregnancy loss, stillbirth, and neonatal or infant death 4. Follow organizational policies, standard operating procedures, and guidelines regarding care of the patient experiencing perinatal loss 5. Participate in developing organizational policies, standard operating procedures, guidelines regarding care of the patient experiencing perinatal loss 6. Participate in educating the public on perinatal loss and grief 7. Facilitate awareness of professional boundaries for self and staff **B. Professional development** 1. Have knowledge of theories about attachment, hope, grief, and loss 2. Contribute to professional development of peers, colleagues, students, and others as preceptor, educator, or mentor 3. Access resources on best practice related to perinatal loss 4. Participate in professional organization activities 5. Maintain personal continuing education plan to update knowledge **C. Self-Care** 1. Identify and implement strategies for dealing with: a. professional grief b. moral distress in practice c. compassion fatigue in practice (e.g., secondary stress) d. impact of personal beliefs, values, and attitudes on professional practice 2. Identify and participate in self-care activities (e.g., stress management, reflection, meditation, mindfulness, professional support)	