



American Board for
Occupational Health Nurses, Inc.

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Occupational health nursing is a varied and specialized nursing practice in which the occupational health nurses (OHNs) draw upon a wide base of knowledge and skills in their practice. The attainment of certification in occupational health nursing indicates the nurse has the knowledge and expertise to competently care for individuals in the workplace. Certification in the nursing specialty practice of occupational health nursing demonstrates professionalism and proficiency to employers and to the general public.

The American Board of Occupational Health Nurses (ABOHN) was formed in 1972 to develop a certification process for nurses working in the field of occupational health nursing. Certification provides a mechanism for occupational health nurses to demonstrate their mastery of a body of knowledge supporting their practice. ABOHN is the sole certifying body for occupational health nurses, and since its inception has certified a total of 16,000 nurses in the specialty.

ABOHN has two “core” specialty certifications: Certified Occupational Health Nurse (COHN), Certified Occupational Health Nurse Specialist (COHN-S), and two additional sub-specialty certifications: Case Management (CM) and Safety Management (SM). The COHN credential is designed for nurses with a greater focus on clinical practice, and the COHN-S certification is designed for nurses with a management focus in their practice. The sub-specialty certifications demonstrate additional proficiency in case management or safety management.

ABOHN ensures their examinations reflect the current practice of occupational health nursing by periodically conducting a Practice Analysis. This thorough analysis of the occupational health nursing practice is conducted by ABOHN, working in collaboration with Applied Management Professionals, Inc. (AMP), to assure the examinations are reliable and valid. For this article, the term practice analysis is used to describe the process followed in analyzing the current activities in the field of occupational health nursing practice, however other equally appropriate terms such as job analysis or role delineation may also be used to describe the process. Practice analysis is a contemporary term suggesting that the focus of the study is broader than a single task and therefore provides the most appropriate description of the current study. (AAOHN Journal 2006)

The quality of ABOHN’s credentialing process is validated by the National Commission for Certifying Agencies (NCCA), which is part of the Institute for Credentialing Excellence (ICE). In the past, NCCA has accredited ABOHN’s COHN, COHN-S and CM examinations. The Safety Management (SM) examination was developed in collaboration with the Board of Certified Safety Professionals (BCSP). This collaboration produced an examination which was initially validated through the 2004 ABOHN practice analysis to represent the significant knowledge, skills and abilities of occupational health nurses with safety responsibilities. This examination is also accredited by the National Commission for Certifying Agencies (NCCA) through BCSP.

The OHN tasks referenced in the SM examination were not included in the ABOHN 2011 practice analysis study; however some OHN safety tasks were included in the COHN and COHN-S practice analysis survey. Because the SM examination is recognized by the Board for Certified Safety Professionals (BCSP) as qualifying to be equivalent to their Associate Safety Professional (ASP) certification, practice analysis of the SM examination is conducted by BCSP.

PURPOSE

The primary purpose of this practice analysis is to identify the roles and responsibilities of nurses working in the practice specialty of occupational health nursing in various settings, whether they are certified or not. The specific goals of the practice analysis were: obtaining data to guide refinement of ABOHN's COHN, COHN-S and CM examinations; to verify the examination blueprints, and to validate occupational health nurse roles and responsibilities. (AMP report to ABOHN 2011)

METHODOLOGY

The ABOHN Board of Directors appointed a Practice Analysis Advisory Committee (AC) to identify occupational health nursing responsibilities and develop the examination specifications. The Advisory Committee members are reflective of the occupational health nursing profession in all relevant aspects (geographic, professional practice area and level of responsibility, educational background, gender, and work setting). All Advisory Committee members had demonstrated expertise in their respective areas of specialization. The Advisory Committee considered various resource materials in gaining an understanding of the responsibilities of occupational health nurses. The primary resource was the previous practice analysis survey. Additional materials used included: AC orientation materials from past practice analysis committees, a draft of rating scales used for the previous practice analysis and a timeline for conducting the study. Applied Measurement Professionals, Inc. (AMP) provided background information for the practice analysis and its relationship to the examination development process. AMP provided the technical psychometric expertise for this study and the AC provided the content expertise.

Five major tasks were identified in order to complete the practice analysis. Those tasks were:

1. Develop a sampling plan
2. Identify tasks for the survey instrument
3. Determine rating scales
4. Determine relevant demographic variables of interest
5. Integrate demographic rating scales and tasks into a survey instrument

Sampling Plan

The AC considered various methods of identifying individuals who consider themselves to be occupational health nurses. It was decided by the Practice Analysis Committee to distribute the survey to both certified and non-certified occupational health nurses, to gather the most complete picture of occupational health nursing practice. ABOHN provided AMP with 8,720 names and email addresses comprised of members of the American Association of Occupational Health Nurses (AAOHN) and members of the Association of Occupational Health Professionals in Healthcare (AOHP) for survey distribution, along with email addresses of individuals who previously applied for the certification examinations but never became certified. (AMP report to ABOHN 2011)

Instrument Development

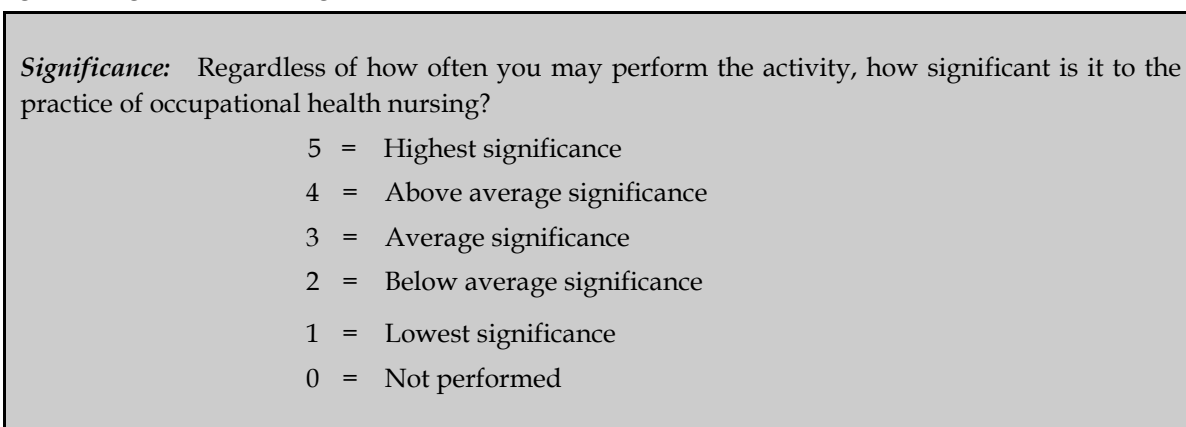
The survey task list used in the 2004 practice analysis consisting of 172 tasks was reviewed and discussed by the AC in June, 2010. Tasks representing nursing practice were modified, added and removed. The final survey task list contained 136 tasks authorized by the AC. In addition to the task

statements, demographic and job-related questions were also reviewed and developed as a part of the survey. The survey components were combined by AMP into a web-based draft survey instrument, which was then approved by the AC.

Rating Scales

The AC discussed the advantages and disadvantages of various rating scales that could be used, and the AC decided to adopt a significance scale. The respondent's perception of the value of each task in occupational health practice would be recorded on a significance scale intended to capture two pieces of information. The scale had a zero point to allow the respondent to indicate the task was not part of practice. And for those nurses who viewed the task as a part of practice, a five-point significance scale could be used, with higher ratings reflecting higher significance of the item. The scale and instructions given to survey respondents are shown in Figure 1 below. (AMP report to ABOHN 2011)

Figure 1 Significance Rating Scale and Instructions



Demographic and Job-Related Variables of Interest

The committee identified 23 relevant and important demographic survey variables. Demographics characteristic of the sample were obtained from questions about the:

- region of practice
- basic level of preparation in nursing,
- highest level of education,
- current OHN certification,
- years certified,
- other certifications held,
- years in current position, years as OHN,
- years as RN,
- responsibility for global issues,

- gender,
- racial/ethnic background,
- age,
- number of employees to which OHN services are provided,
- type of industry,
- job title,
- number of OHNs at the facility,
- supervision of staff and
- percent of time spent in identified roles and activities.

(AMP report to ABOHN 2011)

Final Survey Instrument

All components of the survey (demographics, rating scales, task statements) were then combined into a web-based draft survey instrument. As a pilot test, the survey was distributed via email to the members of the Practice Analysis Advisory Committee and other content experts for comments. The AC reviewed the comments and prepared a final draft of the survey instrument, which was distributed via an email invitation to the list of potential survey participants in August, 2011. Potential participants were given 30 days to complete the survey.

RESULTS

A total of 8,720 web-based surveys containing 136 task statements were distributed to occupational health nurses throughout the United States and Canada. After reducing the sample for undeliverable email addresses (n=2401), 6,319 valid surveys remained. Respondents returned 2,594 surveys for a total response rate of 41%. Of the 2,594 responses, 185 were not used because either they did not respond to any questions or they did not respond to at least a quarter of each survey scale, and therefore did not qualify for inclusion in the study. There were a total of 2,409 usable responses for analysis. To the extent possible, characteristics of the usable and unusable respondents were compared and found to be similar. The usable response rate was adjusted to be 38.1%.

Data about demographic and work characteristics were analyzed electronically with SPSS 19 using descriptive statistics, including means, ranges, standard deviation, and frequencies. The AC concluded the responses to the demographic questions were generally as expected and indicated there were sufficient numbers of respondents in relevant groups for subsequent analysis. Approximately 99.3% of the respondents felt the practice analysis survey at least adequately addressed the responsibilities of the occupational health nurse. In addition, respondents used all rating scales with an acceptable level of reliability. (AMP report to ABOHN 2011)

Figure 2 Shows the regions in which all respondents are employed, by certification type. For this figure, only those actually holding the respective certifications are shown. For subsequent descriptions of demographic groups, the description COHN-type and COHN-S-type will be used, and these groups include those who are certified as well as those who would be eligible for the respective certification category, as evidenced by their other demographic responses.

Figure 2 Region of Practice by Certification Type

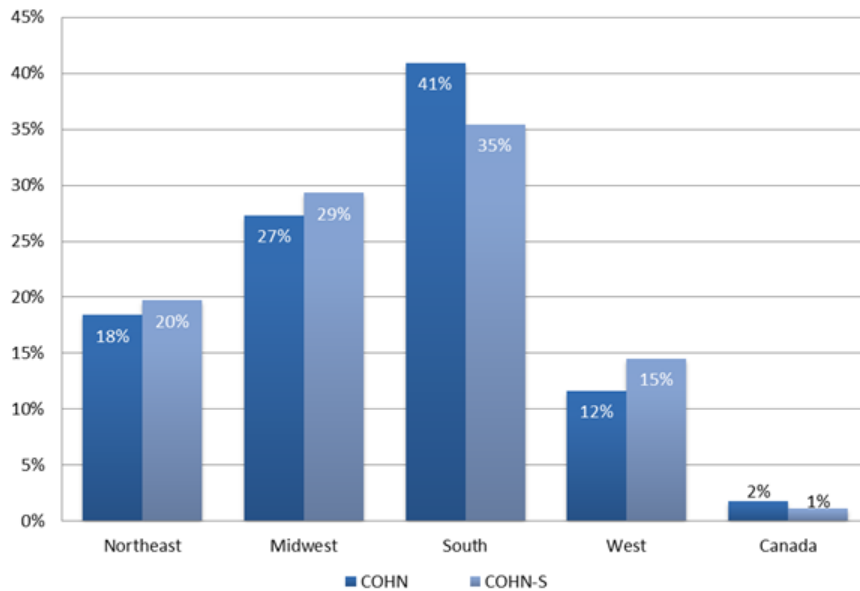


Figure 3 Shows the Regions Where OHN are Employed

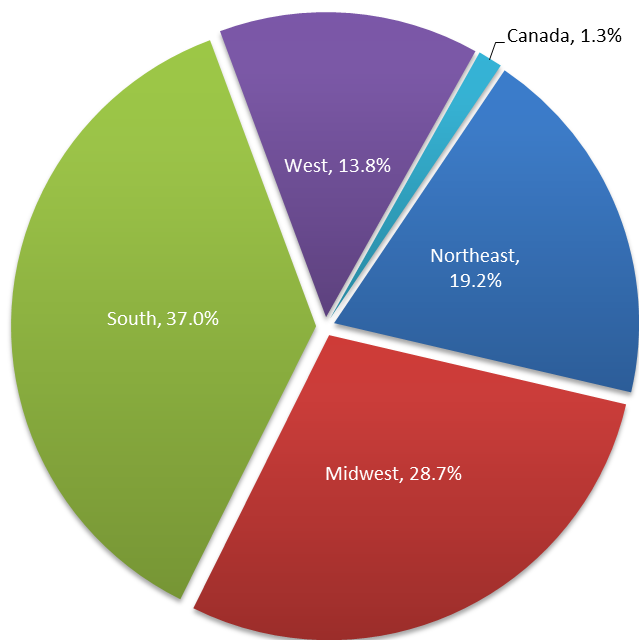
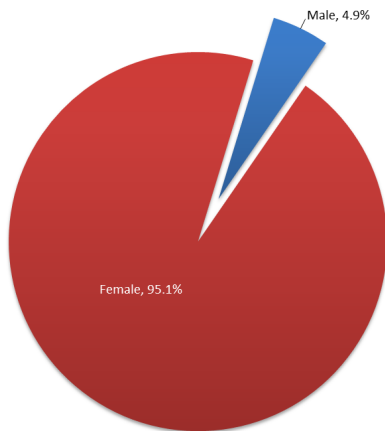


Figure 4 Shows the Respondent's Gender



Respondents were asked to indicate whether they have responsibility of global health issues or services. The majority of respondents (70.5%) indicated they do not have responsibility for global issues.

Respondents were asked about the number of employees for which they are responsible to provide services. A little less than a third (29.1%) provide services for between 1,001 and 4,000 employees, while about a quarter (24.5%) provide services for over 4,000 employees. For COHN-types, the average number of employees provided services is 3,523. For COHN-S-types, the average number of employees provided services is 7,050. Figure 5 shows the number of employees for which respondents have responsibility.

Figure 5 Responsibility for Number of Employees

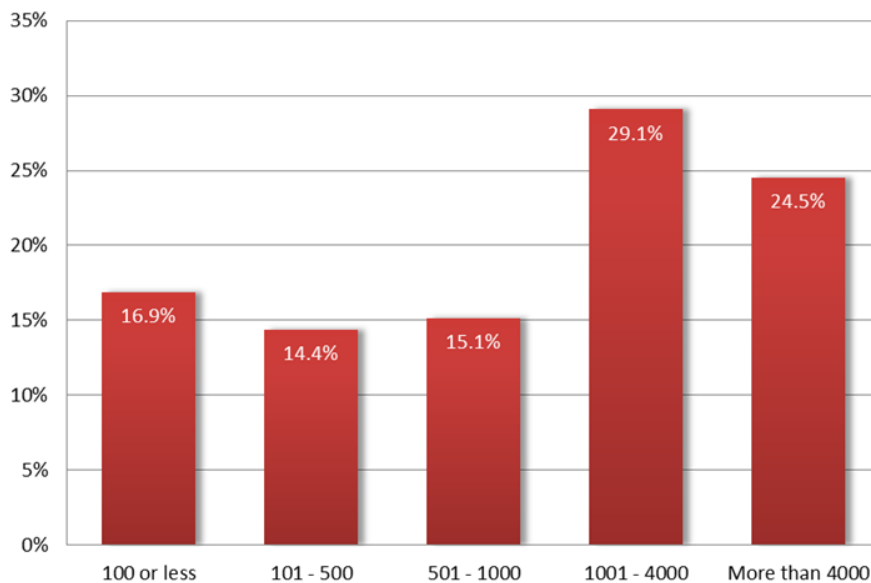


Table 1 Shows survey respondents' industry for COHN-types, COHN-S-types and for all respondents. For both types, the largest group of respondents works in a hospital or medical center setting. Overall 29.1% of respondents reported working in a hospital or medical center, compared with 19.9% reporting practice in a hospital or medical center in the 2004 practice analysis survey. (AAOHN Journal 2006)

Table 1 Respondent Area of Industry

| Frequency indicates the combined total of COHN and COHN-Ss in the specific industry | ALL | COHN | COHN-S | | | | |
|---|-------------|----------------|----------------------|-------------|----------------------|-------------|----------------------|
| | Freq | Percent | Valid Percent | Freq | Valid Percent | Freq | Valid Percent |
| Agriculture/Forestry/Fisheries/ Mining | 14 | .6 | .6 | 5 | .7 | 9 | .5 |
| Construction | 15 | .6 | .6 | 7 | 1.0 | 7 | .4 |
| Transportation | 60 | 2.5 | 2.5 | 17 | 2.5 | 43 | 2.6 |
| Communications | 22 | .9 | .9 | 3 | .4 | 19 | 1.2 |
| Utility services | 54 | 2.2 | 2.3 | 15 | 2.2 | 39 | 2.4 |
| Wholesale and retail trade | 31 | 1.3 | 1.3 | 10 | 1.5 | 19 | 1.2 |
| Finance | 21 | .9 | .9 | 7 | 1.0 | 14 | .9 |
| Insurance and real estate | 133 | 5.5 | 5.6 | 28 | 4.2 | 100 | 6.1 |
| Federal, State, or Local govern- ment | 244 | 10.1 | 10.4 | 50 | 7.5 | 190 | 11.6 |
| Hospital/Medical center | 686 | 28.5 | 29.1 | 202 | 30.1 | 469 | 28.5 |
| College/University | 53 | 2.2 | 2.3 | 4 | .6 | 49 | 3.0 |
| Textile mill products | 24 | 1.0 | 1.0 | 10 | 1.5 | 13 | .8 |
| Lumber/Wood/Paper/Allied products | 45 | 1.9 | 1.9 | 10 | 1.5 | 35 | 2.1 |
| Chemicals/Allied products | 139 | 5.8 | 5.9 | 45 | 6.7 | 92 | 5.6 |

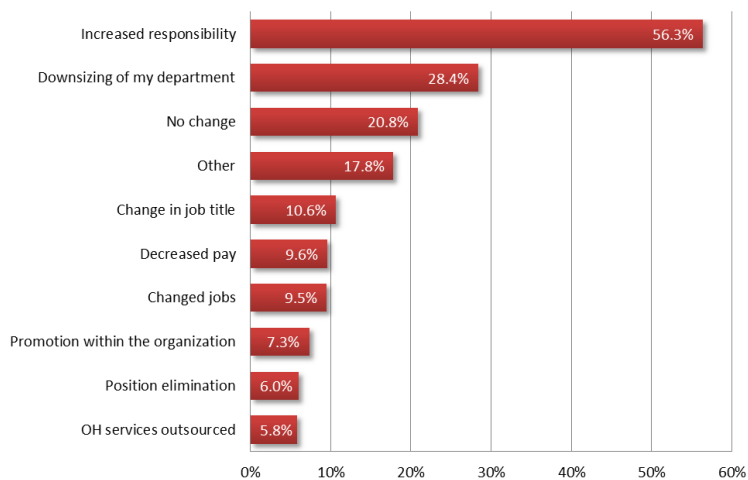
Table 1 – Continued on next page

Table 1-Continued

| Frequency indicates the combined total of COHN and COHN-Ss in the specific industry | ALL | COHN | COHN-S | | | | |
|---|-------------|----------------|----------------------|-------------|----------------------|-------------|----------------------|
| | Freq | Percent | Valid Percent | Freq | Valid Percent | Freq | Valid Percent |
| Chemicals/Allied products | 139 | 5.8 | 5.9 | 45 | 6.7 | 92 | 5.6 |
| Rubber/Misc. leather/Plastic products | 20 | .8 | .8 | 6 | .9 | 14 | .9 |
| Primary metal industry/Fabricated metal products | 63 | 2.6 | 2.7 | 25 | 3.7 | 35 | 2.1 |
| Professional/Scientific/Control instruments | 69 | 2.9 | 2.9 | 12 | 1.8 | 55 | 3.3 |
| Machinery, electrical or non-electrical | 35 | 1.5 | 1.5 | 10 | 1.5 | 24 | 1.5 |
| Aerospace | 58 | 2.4 | 2.5 | 16 | 2.4 | 42 | 2.6 |
| Food/Kindred products | 118 | 4.9 | 5.0 | 58 | 8.6 | 59 | 3.6 |
| Apparel/Finished products | 9 | .4 | .4 | 3 | .4 | 6 | .4 |
| Oil refining, related industries | 58 | 2.4 | 2.5 | 19 | 2.8 | 39 | 2.4 |
| Stone/Clay/Glass/Concrete products | 11 | .5 | .5 | 2 | .3 | 9 | .5 |
| Amusement/Recreational services | 5 | .2 | .2 | 2 | .3 | 3 | .2 |
| Miscellaneous manufacturing activities or services | 295 | 12.2 | 12.5 | 93 | 13.9 | 201 | 12.2 |
| Self-employed/Consulting | 72 | 3.0 | 3.1 | 12 | 1.8 | 59 | 3.6 |
| Total | 2354 | 97.7 | 100.0 | 671 | 100.0 | 1644 | 100.0 |
| No Response | 55 | 2.3 | | | | | |
| Total | 2409 | 100.0 | | | | | |

Respondents were asked to indicate how the economic climate over the past few years has impacted their nursing practice. Respondents were allowed to select all that apply from the positions listed. Figure 6 shows the most frequently selected response was increased responsibility.

Figure 6 Economic Climate Impact



Respondents were asked to indicate the amount of time they spend in each OHN activity. There were two activities in which respondents indicated they spent the largest percent of time: health and wellness activities and case management.

Figure 7 COHN/COHN-S Time in OHN Activity

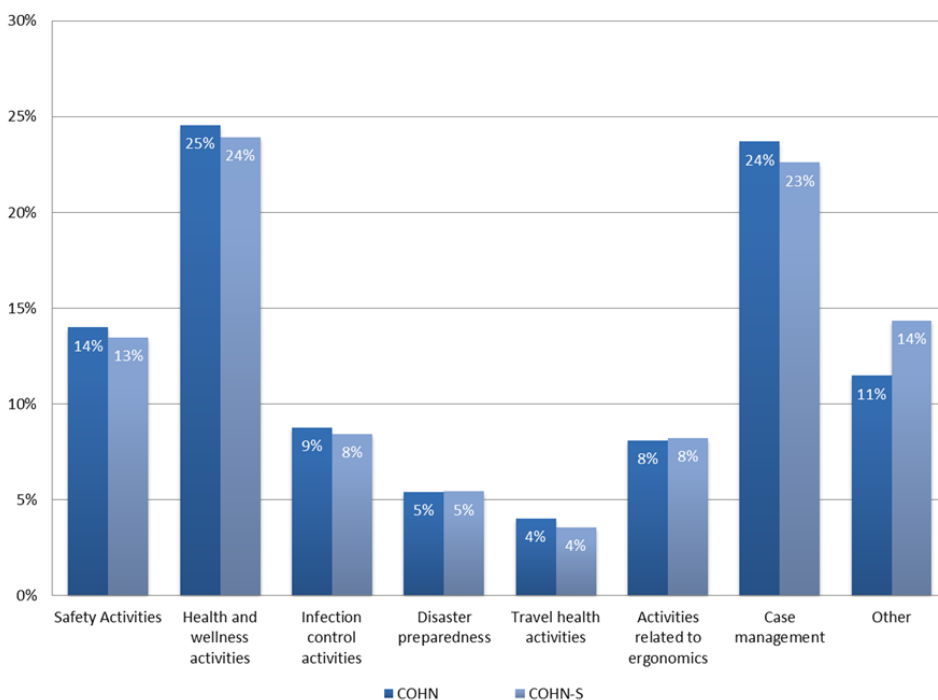


Figure 8 Certification in Occupational Health Nursing

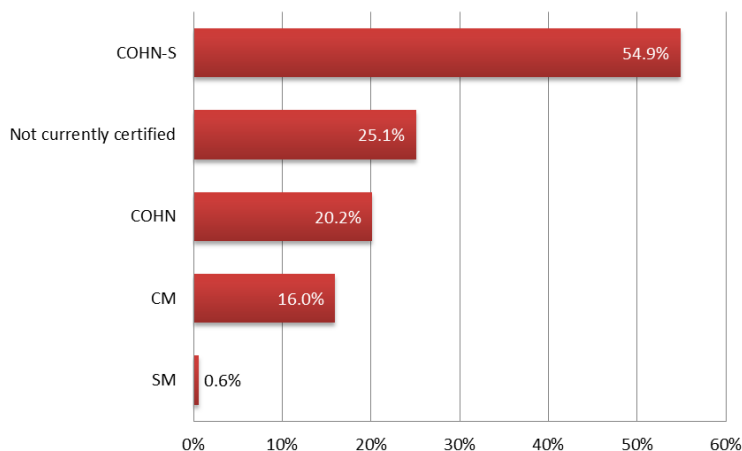
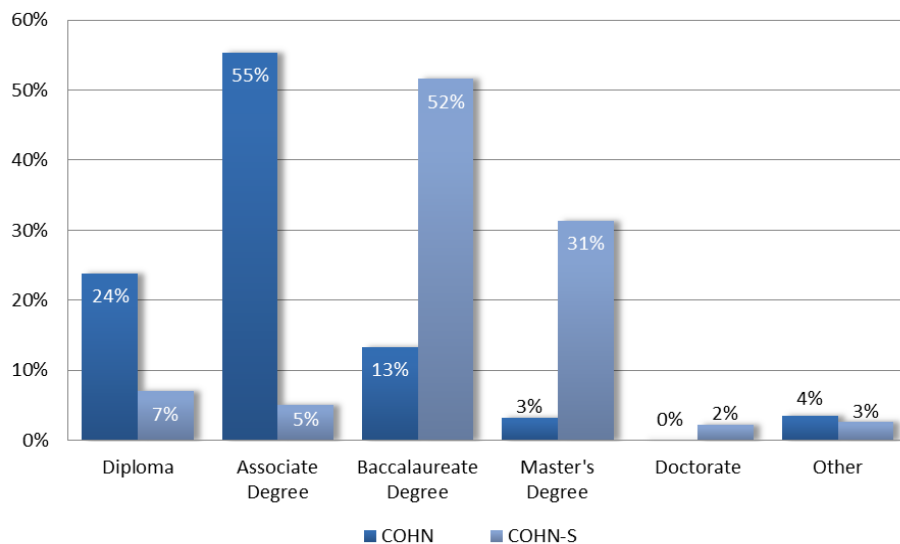


Figure 8 illustrates the survey respondents’ certification status. The largest number of survey participants holds the COHN-S (54.9%) certification. The second largest group of survey participants are not currently certified (25.1%), followed respectively by survey participants holds the COHN certification (20.2%), participants holding CM certification (16%) and the smallest group of survey participants holding the SM certification (0.6%).

Figure 9 Highest Level of Education by Certification Type



The highest educational level for the largest number COHN’s was either associate degree or diploma. The highest level of education for the largest number of COHN-S’ was Baccalaureate degree followed by Master’s degree (Figure 9).

Task Ratings

The main focus of the data analysis was evaluation of the task ratings of the 136 task statements. While relative comparisons are appropriate (for example when comparing tasks, the task with the higher mean significance rating could be said to be more significant to practice), it is important to consider the absolute meaning of the ratings. The mean of each of the significance ratings is based on ratings by those who perform the task but does not indicate any level of frequency of performance.

For COHN-types, the mean significance ratings of individual task statements ranged from 2.18 to 4.64, based on the five-point scale after removing respondents who indicated “not performed.” For COHN-S-types, the mean significance ratings of individual task statements ranged from 2.08 to 4.62. The mean rating of significance calculated across all 136 tasks was 3.37, with a standard deviation of 0.39. For CM-types (i.e., those having case management as a substantial part of their role), the mean significance ratings of individual task statements ranged from 1.99 to 4.68. The mean rating of significance was 3.42, with a standard deviation of 0.41. A grouped frequency of distribution of the overall mean task ratings for the 136 tasks is shown in Table 2. (AMP report to ABOHN 2011)

Table 2 Distribution of Mean Task Ratings

| | | COHN | | COHN-S | | CM | |
|---------------|-------------|-------|------|--------|------|-------|------|
| | | Count | % | Count | % | Count | % |
| Highest | 4.50 – 5.00 | 1 | 0.7 | 1 | 0.7 | 1 | 0.7 |
| Above Average | 3.50 - 4.49 | 51 | 37.5 | 55 | 40.4 | 56 | 41.2 |
| Average | 2.50 – 3.49 | 83 | 61.0 | 79 | 58.1 | 77 | 56.6 |
| Below Average | 1.50 – 2.49 | 1 | 0.7 | 1 | 0.7 | 2 | 1.5 |
| Lowest | Below 1.50 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| | | 136 | | 136 | | 136 | |

Table 3 Tables 3 through 8 show the 10 lowest and 10 highest ranked task statements as they were ranked by COHN-types, COHN-S-types and CM-types. The two highest ranked tasks for both COHN-types and COHN-S-types were consistent with the practice analysis data from 2004. These tasks were: assure confidentiality of personal health information and provide treatment of work-related injuries and illnesses. The task ranked lowest by both COHN-types and COHN-S-types was also consistent with the data from the 2004 practice analysis: provide care for families of employees. (AAOHN Journal 2006)

Table 3

| | COHN 10 Lowest Ranked Task Statements | N | Mean | SD | SEM |
|----|--|----------|-------------|-----------|------------|
| 1 | Provide direct care for families of employees | 170 | 2.18 | 1.117 | .086 |
| 2 | Design and conduct research | 248 | 2.56 | 1.219 | .077 |
| 3 | Evaluate benefit programs for health care delivery to employees and dependents | 268 | 2.70 | 1.098 | .067 |
| 4 | Apply knowledge of business cycles, trends, and forecasts to market programs | 309 | 2.73 | 1.167 | .066 |
| 5 | Participate in research on practice issues/problems | 326 | 2.76 | 1.173 | .065 |
| 6 | Collaborate in the development of a business continuity plan | 321 | 2.78 | 1.183 | .066 |
| 7 | Provide resources for community education | 433 | 2.81 | 1.147 | .055 |
| 8 | Develop and monitor performance criteria for vendors and suppliers | 335 | 2.84 | 1.165 | .064 |
| 9 | Collaborate to develop nuclear, biological, and chemical response plans | 316 | 2.85 | 1.139 | .064 |
| 10 | Design data collection instruments, questionnaires, and other forms | 391 | 2.86 | 1.210 | .061 |

Table 4

| | COHN 10 Highest Ranking Task Statements | N | Mean | SD | SEM |
|----|---|----------|-------------|-----------|------------|
| 1 | Assure confidentiality of personal health information and comply with established codes of ethics and legal or regulatory requirements | 650 | 4.64 | .707 | .028 |
| 2 | Provide treatment of work-related injuries or illnesses | 618 | 4.39 | .925 | .037 |
| 3 | Maintain OSHA-required logs and documents | 469 | 4.19 | 1.065 | .049 |
| 4 | Use and maintain an employee health recordkeeping system | 633 | 4.14 | .921 | .037 |
| 5 | Manage workers' compensation cases | 578 | 4.04 | 1.175 | .049 |
| 6 | Assess employees with work restrictions or limitations and make appropriate job placement recommendations (i.e., fitness for duty) | 611 | 4.02 | 1.036 | .042 |
| 7 | Perform audiometry | 378 | 3.98 | 1.175 | .060 |
| 8 | Implement policies and procedures for maintenance of confidentiality | 547 | 3.96 | 1.110 | .047 |
| 9 | Conduct health surveillance of individuals/groups for specific hazards (e.g., hearing conservation, respiratory protection, laser safety) | 597 | 3.92 | 1.096 | .045 |
| 10 | Interpret results of screening tests and refer as indicated | 632 | 3.92 | 1.029 | .041 |

Table 5

| | COHN-S 10 Lowest Ranked Task Statements | N | Mean | SD | SEM |
|----|---|----------|-------------|-----------|------------|
| 1 | Provide direct care for families of employees | 404 | 2.08 | .056 | 1.128 |
| 2 | Design and conduct research | 678 | 2.61 | .049 | 1.276 |
| 3 | Evaluate benefit programs for health care delivery to employees and dependents | 641 | 2.71 | .049 | 1.241 |
| 4 | Participate in research on practice issues/problems | 882 | 2.86 | .042 | 1.248 |
| 5 | Manage programs for chronic diseases | 875 | 2.87 | .041 | 1.198 |
| 6 | Participate in the legislative and regulatory process related to nursing practice, workers, work sites, and environment | 887 | 2.89 | .042 | 1.256 |
| 7 | Apply knowledge of business cycles, trends, and forecasts to market programs | 896 | 2.91 | .041 | 1.239 |
| 8 | Coordinate crisis intervention strategies | 1241 | 2.92 | .033 | 1.162 |
| 9 | Design data collection instruments, questionnaires, and other forms | 1012 | 2.92 | .039 | 1.231 |
| 10 | Provide resources for community education | 1017 | 2.93 | .037 | 1.187 |

Table 6

| | COHN-S 10 Highest Ranked Task Statements | N | Mean | SD | SEM |
|----|--|----------|-------------|-----------|------------|
| 1 | Assure confidentiality of personal health information and comply with established codes of ethics and legal or regulatory requirements | 1589 | 4.62 | .019 | .738 |
| 2 | Provide treatment of work-related injuries or illnesses | 1402 | 4.26 | .029 | 1.070 |
| 3 | Maintain OSHA-required logs and documents | 1039 | 4.09 | .036 | 1.158 |
| 4 | Manage workers' compensation cases | 1337 | 4.09 | .031 | 1.150 |
| 5 | Use and maintain an employee health recordkeeping system | 1480 | 4.07 | .026 | 1.001 |
| 6 | Implement policies and procedures for maintenance of confidentiality | 1340 | 4.01 | .029 | 1.076 |
| 7 | Assess employees with work restrictions or limitations and make appropriate job placement recommendations (i.e., fitness for duty) | 1467 | 3.97 | .027 | 1.049 |
| 8 | Collaborate with other disciplines to protect and promote worker health and safety | 1585 | 3.97 | .025 | .992 |
| 9 | Administer or manage a workers' compensation program | 1066 | 3.94 | .036 | 1.176 |
| 10 | Interpret results of screening tests and refer as indicated | 1488 | 3.93 | .027 | 1.048 |

Table 7

| | Case Management Lowest Ranked Task Statements | N | Mean | SD | SEM |
|----|--|----------|-------------|-----------|------------|
| 1 | Provide direct care for families of employees | 208 | 1.99 | .069 | .990 |
| 2 | Design and conduct research | 352 | 2.48 | .066 | 1.231 |
| 3 | Evaluate benefit programs for health care delivery to employees and dependents | 376 | 2.70 | .062 | 1.208 |
| 4 | Participate in research on practice issues/problems | 443 | 2.75 | .058 | 1.221 |
| 5 | Apply knowledge of business cycles, trends, and forecasts to market programs | 472 | 2.81 | .058 | 1.260 |
| 6 | Provide resources for community education | 570 | 2.82 | .050 | 1.182 |
| 7 | Design data collection instruments, questionnaires, and other forms | 511 | 2.82 | .055 | 1.242 |
| 8 | Collaborate to develop nuclear, biological, and chemical response plans | 418 | 2.84 | .061 | 1.246 |
| 9 | Participate in the legislative and regulatory process related to nursing practice, workers, work sites, and environment | 480 | 2.87 | .058 | 1.264 |
| 10 | Design and coordinate health care programs for international travel or work assignments (e.g., immunization, health risk counseling) | 446 | 2.87 | .062 | 1.308 |

Table 8

| | Case Management Highest Ranked Task Statements | N | Mean | SD | SEM |
|----|--|----------|-------------|-----------|------------|
| 1 | Assure confidentiality of personal health information and comply with established codes of ethics and legal or regulatory requirements | 912 | 4.68 | .023 | .682 |
| 2 | Manage workers' compensation cases | 871 | 4.43 | .032 | .938 |
| 3 | Provide treatment of work-related injuries or illnesses | 796 | 4.31 | .038 | 1.076 |
| 4 | Maintain OSHA-required logs and documents | 594 | 4.20 | .046 | 1.125 |
| 5 | Assess employees with work restrictions or limitations and make appropriate job placement recommendations (i.e., fitness for duty) | 865 | 4.18 | .032 | .937 |
| 6 | Identify work-related cases that are appropriate for case management | 842 | 4.17 | .034 | .995 |
| 7 | Use and maintain an employee health recordkeeping system | 828 | 4.09 | .034 | .982 |
| 8 | Administer or manage a workers' compensation program | 701 | 4.09 | .040 | 1.072 |
| 9 | Develop case management plans for individuals | 874 | 4.07 | .036 | 1.050 |
| 10 | Implement integrated disability management strategies (i.e., STD, LTD, FMLA, workers' compensation, ADA) | 770 | 4.02 | .041 | 1.139 |

Development of Final Test Content Outline and Test Specifications

It is crucial for a national certification exam to reflect the responsibilities of all groups who will participate in examination, and neither the test specifications nor the resulting examination items include tasks not considered to be important responsibilities of the individuals for whom the examination is intended. The main purpose of the practice analysis was to analyze areas of knowledge required in the scope of practice of occupational health nurses as reflected by the tasks they perform. It is equally important to ensure neither the test specifications nor resulting examination items include tasks not considered to be responsibilities of individuals practicing occupational health nursing.

The Practice Analysis Advisory Committee determined the COHN and COHN-S tasks could be assessed using a total of 135 multiple choice questions for each exam, and the CM tasks could be assessed using 100 multiple choice questions. Several decision rules were developed and implemented by the AC to determine criteria by which tasks should be considered eligible or ineligible for assessment and excluded from the test content outline. The decision rules are shown below in Table 9.

Table 9 Decision Rules for Test Outline Content

| Decision Rule | Criteria |
|---|--|
| Is the task performed in practice? | > 51% non “0” ratings (i.e., must perform) |
| Is the task a significant part of practice? | Significance rating \geq 3.00 |
| Is the task significant throughout the US? | Significance rating > 2.85 in all 4 US regions |
| Is the task significant regardless of years practicing as an OHN? | Significance rating > 2.85 in all groups |
| Is the task significant regardless of certification? | Significance rating > 2.85 for both groups |
| Is the task significant regardless of where in the organization the respondent reports? | Significance rating > 2.85 for all groups |
| Is the task significant for major job titles? | Significance rating > 2.85 in all 4 title groups (not other) |

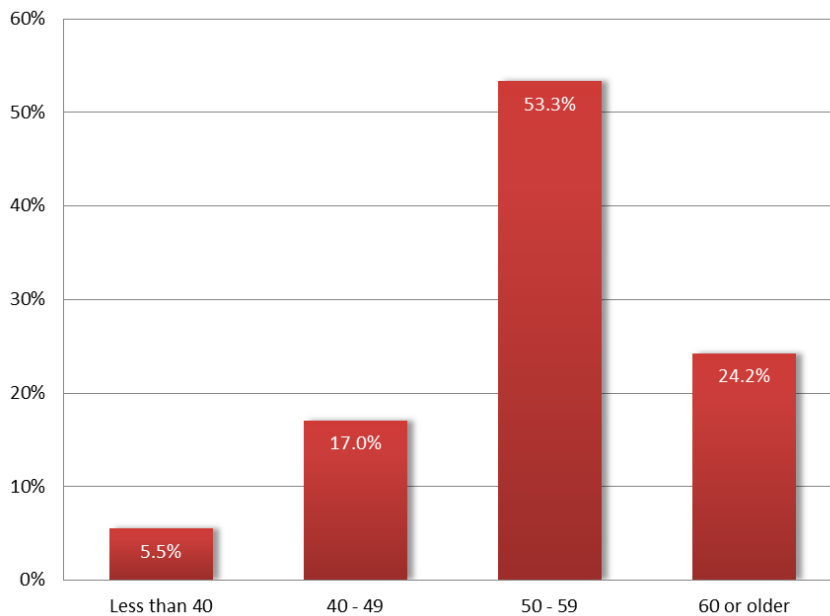
The AC used the previously agreed upon decision rules to determine how to distribute the items across the content categories. For each of the three examinations, the Practice Analysis Advisory Committee linked the tasks to a relevant domain of knowledge. These knowledge domains form the basis of the test content outline or blueprint. (AMP report to ABOHN 2011) When the revisions to the examination content outlines are completed they will be made available to candidates and interested parties through the ABOHN website.

DISCUSSION

Historical Perspective

The data obtained from the 2011 practice analysis provided an opportunity for comparison with data from an earlier analysis conducted in 2004. Some practice patterns remained fairly constant. (AAOHN Journal 2006)

Figure 10 Age of Respondents

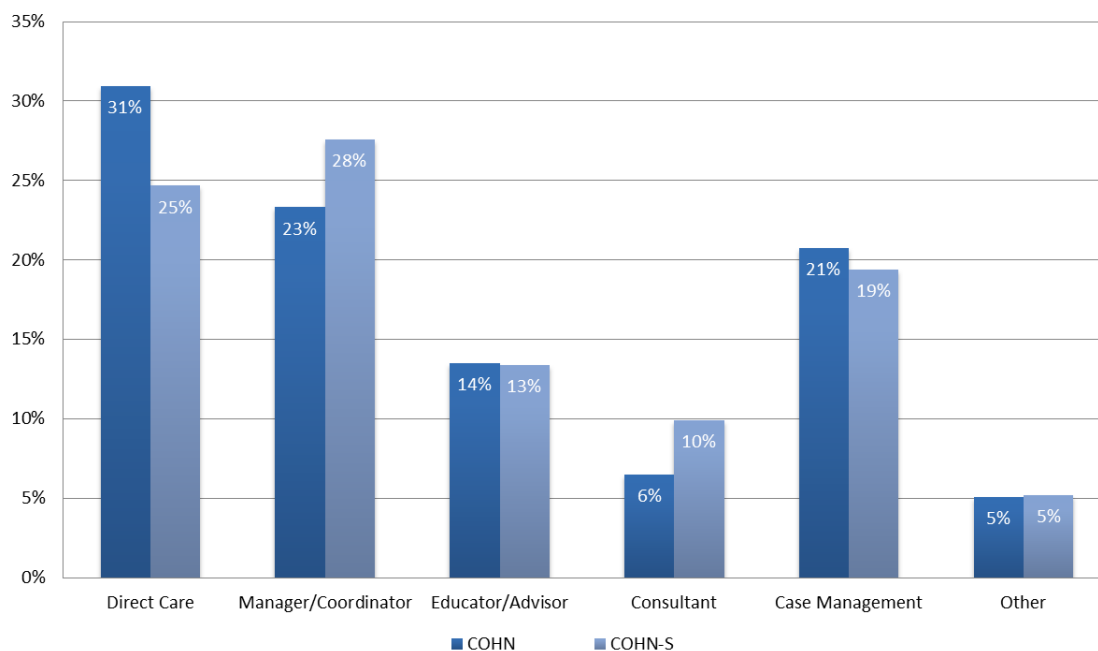


Occupational health nurses as a group continue to be older workers. The data show the majority of OHNs (53.3%) are now between 50 and 59 years old and another 24.2% are age 60 and older, with a mean age of 54.2 years, as compared with the mean age of 50.79 years as determined by the 2004 practice analysis. (AAOHN Journal 2006)

Respondent's first educational levels in nursing have remained relatively consistent since the 2004 practice analysis survey as well. In survey results from the 2004 study, 29.3% reported a BSN as their first nursing degree, and in the 2011 survey, 29.8% reported a BSN as their first nursing degree. (AAOHN Journal 2006)

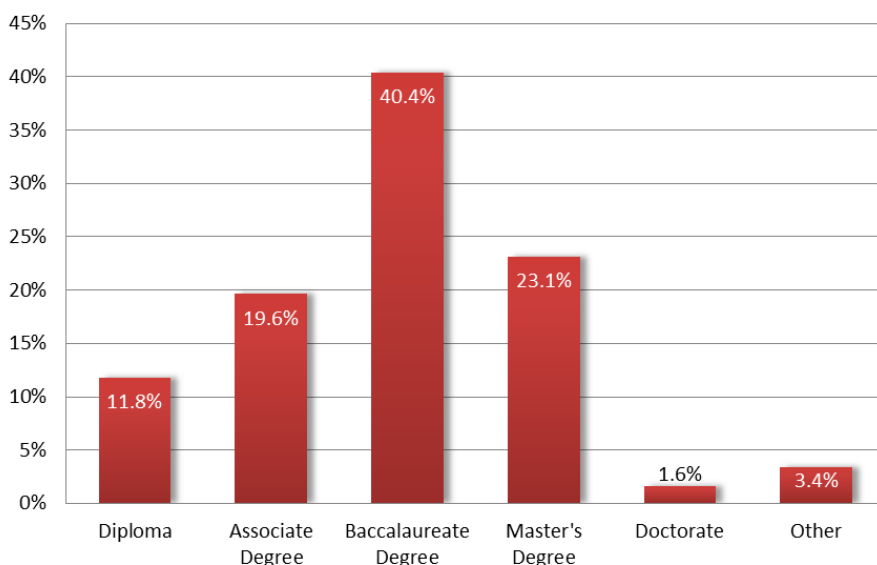
Additionally, in the 2011 study respondents in the COHN-type group reported spending 31% of their time in direct care activities, and the COHN-S-types reported 25% of their time in direct care activities; these findings were relatively unchanged from the findings of the 2004 practice analysis study in which 31.8% of COHN-types and 25.3% of COHN-S types reported spending time in direct care activities. The amount of time spent in management role was also relatively unchanged from the 2004 practice analysis study. In 2011 the COHN-types reported spending 23% of their time in management activities and COHN-S types reported 28% of their time in management activities; in 2004 COHN-types reported 21.7% and COHN-S types reported 27.7% of their time in management activities. These practice patterns confirm the continuation of focus of the COHN examination in clinical activities and the focus of the COHN-S examination in management role activities. (AAOHN Journal 2006). Figure 11 below shows the findings of the 2011 practice analysis study in the percentage of time spent in OHN roles.

Figure 11 Percentage of Time Spent in OHN Roles



The number of respondents with higher degrees continues to increase: in 1992 to 1994, 36.7% of respondents reported having a Baccalaureate degree as their highest degree, and 17% reported a Master's degree as their highest degree. In the 2004 study 38.47% reported having a Baccalaureate degree, 21.4% reported earning a Master's degree and 0.3% reported a Doctorate degree; in the results of the 2011 study, 40.4% of respondents reported holding a Baccalaureate degree, 23.1% reported holding a Master's degree and 1.6% reported earning a Doctorate degree as their highest level of education. (AAOHN Journal 2006)

Figure 12 shows the findings from the 2011 practice analysis study on the respondents' highest level of education.



Study Strengths and Limitations

The most significant strengths of this research were the careful development of the survey instrument and review of the task statements, and the high response rate of survey respondents. Use of a web-based survey instrument made it convenient for survey respondents to easily access the survey, and the smaller number of questions (136 compared with the 2004 practice analysis number of 172) enabled respondents to complete the survey within about 30 minutes.

Review of the response data determined the survey responses to be reliable, providing an indication that if a different group of 2,409 nurses with similar demographic characteristics had responded to the survey it can be concluded the task ratings would be highly similar. Regarding the validity of the survey responses, the pattern of responses consistent with the expectations of the AC can be considered to be a strength of the practice analysis study. Related to that, however, is a potential limitation inherent in any survey research, and that is the possibility of a small number of anomalous responses to any question.

Another limitation of this survey was the use of a convenience sample drawn from potential survey participants who are members of two professional occupational health nursing associations and also from applicants for the certification examinations, which does limit the generalization of the results.

CONCLUSIONS

The ABOHN 2011 practice analysis provided valuable data about the knowledge, skills, abilities and tasks performed by occupational health nurses in the United States and Canada. Additionally, the demographic data obtained is useful in describing occupational health nurses, their roles and responsibilities and their areas of practice. The data were used to refine the ABOHN certification examination blueprints for the COHN, COHN-S, and CM examinations; and will be further used to update and refine the examination items to assure the items on the examinations accurately reflect the current practice of occupational health nurses in the United States and Canada.

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REFERENCES

- Strasser, P.B., Maher, H.K., Knuth, G.K. and Fabrey, L.J. (2006) Occupational Health Nursing 2004 Practice Analysis Report. AAOHN Journal, 54, (1) 14-23
- Fabrey, L.J. and Traynor, C. (2011) A Practice Analysis of the Occupational Health Nurse Conducted for the American Board of Occupational Health Nurses, Inc. December 2011, unpublished manuscript from Applied Measurement Professionals.

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