

Interest of Major Corporations in Expanded Practice of Occupational Health Nurses

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The purpose of this study was to ascertain the interest by executives of major corporations in having occupational health nurses engage in more advanced activities, and to ascertain the available support for advanced educational preparation for nurses. A questionnaire was sent to a systematic sample of 404 of the 808 executives of the *Forbes* 500 corporations with a 57% return rate. Over 90% of the corporations with health care departments employed registered nurses. Functions nurses currently performed varied by size of the corporation and by type of industry. Activities corporations would like nurses to perform were more advanced, such as conducting research, analyzing trends, and developing special health programs.

For many years the specialties in nursing which are practiced outside the hospital setting have lacked visibility within nursing, as well as within society in general. Occupational health nursing (OHN) has been called the invisible specialty in nursing, but it is now receiving greater attention. There are an estimated 20,000 OHN's practicing in the U.S. They often represent nursing to more than 107 million employed adults in this country. They also represent the profession to the corporate leaders who employ them. Certainly the perceptions of influential employers of OHN's and of their millions of clients will shape occupational health nursing and affect the nursing profession as a whole.

Expectations for the knowledge, skills, and abilities of today's occupational health nurse (OHN) are greatly different from what was expected even fifteen years ago. Where previously an awareness of basic nursing prin-

ciples and environmental hazards was sufficient, today the OHN must be well-prepared to anticipate problems in a number of areas, detect subtle changes in the environment before they pose serious hazards, and act promptly and correctly to eliminate the problem or provide treatment for the employee. Additionally, in the many settings in which the nurse is the only health care professional available for the majority of the time, the OHN must have a thorough knowledge of topics from related disciplines: occupational safety, industrial hygiene, toxicology, and epidemiology. Changes in legal and legislative policies mandate that the OHN also be familiar with the numerous environmental regulations and standards that affect the workplace. Finally, the current emphasis on cost-containment requires that the OHN develop programs to maximize available resources. The utilization of OHNs in the oc-

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cupational health setting is, at least in part, a function of the expectations of employers, their perceptions of health care requirements in the workplace, and their awareness of the contributions, potential or actual, of available care givers. Consequently, perceptions of the employer as to the OHN's current responsibilities and potential future responsibilities are important factors in the utilization of OHNs in an occupational health setting.

The purpose of this study was to ascertain the interest by executives of major corporations in having occupational health nurses assume additional and advanced responsibilities. This study is unique in that it focuses on the demand by employers for nurses to perform certain functions, rather than on the functions nurses report they perform, the emphasis for most studies previously conducted. A brief review of the earlier studies provides a perspective on OHNs' perceptions of their functions.

In 1976, Bender and Fagerlund interviewed 14 occupational health nurses in North Dakota to determine the tasks performed; 24 primarily health-oriented tasks were identified. Those related to treatment of injuries were typically performed by all nurses surveyed while less than 30% of the nurses reported performing more specialized tasks (EKGs, pulmonary function tests, etc). Activities related to development and implementation of health promotion and protection programs were not included in their list of essential, preventive services.

Simons (1980) visited 14 industrial establishments for one- to three-day periods, conducted unstructured conversations with OHNs, and observed their practice to identify tasks performed and the frequency of performance. Thirty-four tasks were identified, with the following nine tasks performed by more than 50% of the nurses interviewed:

1. Remains alert for possible connection between apparently unrelated accidents or illness.
2. Keeps accident and injury statistics.
3. Keeps up-to-date on hazardous substances, appropriate safety data sheets and notification of employees.
4. Is aware of what type and amount of work

each job requires.

5. Evaluates ability of absentees to safely return to work.
6. Consults and collaborates with a large variety of people, i.e., safety, personnel, union, management, to provide a safer working environment.
7. Notifies safety officer of suspicious injuries which may need investigation.
8. Receives complaints from employees, acts on them, and/or refers them to the safety committee and/or safety officer.
9. Offers safety counseling to employees on a one-to-one basis.

Plant size was the most important factor influencing the number and type of safety-related activities with nurses in smaller establishments more frequently involved in safety-related tasks. Geographic location also had some influence on which activities OHNs more frequently performed, in the nurses in Arizona and California were responsible for pre-placement physicals, while nurses in other areas did not report performing these activities (Simons, 1980).

McKechnie (1983) assessed the scope of occupational health nursing in one-nurse units by determining the number of functions being performed and examining the influence of certain factors on the scope of occupational health nursing practice. The study involved 48 OHNs (out of 63 who had volunteered) employed full-time in the Chicago and Milwaukee metropolitan areas. Relevant findings were that almost two-thirds of the nurses were performing 7 or more of the 10 core functions, and no significant relationships were observed between number of functions performed and size of the establishment, type of business, length of OHN experience, or amount of medical direction.

Of particular relevance to this study is one conducted in 1985 by Christensen, Richard, Froberg, McGovern, and Abanobi. They analyzed the roles and functions reported by Master's prepared OHNs and arrived at several conclusions. First, the majority of these OHNs were in administrative positions rather than direct clinical practice. Second, functions that were more commonly performed included activities related to educa-

tion, management, consultation, program development, direct care, liaison, and policy making. Activities infrequently performed included environmental health, quality assurance, and program implementation. Their third conclusion was that OHNs who were highly involved in policy formulation were also highly involved at the operational level.

Chovil, Alexander, and Altekkruse (1984) surveyed industries in South Carolina regarding their occupational health and safety programs in terms of both personnel and services. They made no direct measure of specific nursing activities, but assumed that if nurses were employed, they would be involved in the examinations mandated by OSHA (audiometry, pulmonary function tests, and chest x-rays), and in selected health promotion programs. In fact, the proportion of plants offering health promotion programs was remarkably higher where nursing services existed. In response to a question about the plant manager's perceived need for increased nursing services, only 14% of the plants responded affirmatively.

Chovil et al. (1984) drew their conclusions about nurses' roles from associations in the data, rather than from direct information. Because the questionnaire was not published, it is not possible to assess the usefulness of the plant manager's perceptions about increased nursing services. It may well have been based upon a concern about costs, rather than on the desirability of an expansion of functions of OHNs.

Information from the previously conducted studies suggests that occupational health nurses currently perform a variety of activities which are influenced, to some extent, by plant size and geographic location. However, the studies have, for the most part, been small in scope and have investigated occupational health nursing only within a small circumscribed area. Additionally, they have focused on lists of activities that are usually not consistent across studies. Nonetheless, the studies provided a preliminary understanding of practice patterns.

In terms of employer support for education, a marketing research project surveying a random sample of AAOHN members found that 91% perceived their management as

supportive of their participation in academic and continuing education activities (Cox, 1985). 90% were compensated by management for continuing education programs.

No information has been gathered reflecting the demand by employers for OHNs in leadership roles. Studies have been conducted related to the continuing education needs of the OHN and to the interest by OHNs themselves in advanced preparation, but no research obtained information from the employers' perspective. The present study was targeted to obtain complementary information from employers, primarily regarding activities nurses were currently performing and activities employers would like nurses to perform.

METHOD

Sample

Questionnaires were sent to a systematic sample (Babbie, 1973) of the corporations included in the Forbes 500 list. To be listed as a Forbes 500 corporation, companies must rank in the top 500 in the country in one or more of the following categories: profits, sales, market value, and assets. The 1984 Forbes 500 list contained 808 corporations who met their criteria. The Forbes 500 listing was selected for several reasons:

1. Because of these companies' prominence within financial circles in the country, they would very likely be perceived as leaders in other areas as well, for example, in management style or personnel policies. Decisions that they might make about issues such as employee benefits or employment criteria might also have an effect on the decisions and practices of other companies in the industry.
2. Although decisions about individual employees would most likely be made at the local level, corporate decisions on broad policy issues are often made at the national level. Consequently, information from national officers of major corporations about their perceptions and interest in utilizing nurses with graduate nursing

education in occupational health would be particularly helpful in determining the demand for graduates of Master's degree programs.

- These companies employ thousands of OHNs. The number of nurses affected by the decisions of these large companies is substantial.

Instrument

The survey tool was a questionnaire designed by the authors to obtain information

about the following variables: size and type of the corporation; presence of corporation plant sites in Michigan, Indiana, or Ohio; type and number of employees in the health department; educational level of nurses; current responsibilities of registered nurses in the corporation; desired future responsibilities for OHNs; and the nature of support that the corporation would offer for nurses pursuing advanced education.

To identify the responsibilities nurses were currently performing and those responsibilities which employers would like nurses

Table 1. Activities Occupational Health Nurses Perform

| | Currently Do | Would Like Them to Do |
|---|--------------|-----------------------|
| 1. conduct pre-placement physicals | _____ | _____ |
| 2. perform periodic health assessments | _____ | _____ |
| 3. supervise the provision of nursing care for job-related emergency and minor illness episodes | _____ | _____ |
| 4. counsel employees regarding health risks | _____ | _____ |
| 5. plan and develop educational programs related to worker safety, health promotion and risk prevention | _____ | _____ |
| 6. extend health programs to dependants | _____ | _____ |
| 7. conduct plant rounds regularly to identify hazards and potential violations | _____ | _____ |
| 8. participate in environmental monitoring | _____ | _____ |
| 9. develop special health programs particular to the needs of the corporation | _____ | _____ |
| 10. assist in rehabilitation and relocation of disabled workers | _____ | _____ |
| 11. provide follow-up of employees with workmen's compensation claims | _____ | _____ |
| 12. evaluate the ability of absentees to safely return to work | _____ | _____ |
| 13. generate analyses on trends in health promotion, risk reduction and health care expenditures | _____ | _____ |
| 14. develop budget for occupational health area | _____ | _____ |
| 15. make recommendations for more efficient and cost-effective operation of the health care department | _____ | _____ |
| 16. develop analyses for management noting statistics related to employee injury exposure to hazardous substances and action taken to correct identified problems | _____ | _____ |
| 17. serve as a member of the health and safety committee | _____ | _____ |
| 18. participate in employee safety orientation classes and programs for high risk areas | _____ | _____ |
| 19. conduct research to determine cost-effective alternatives for health care programs and services | _____ | _____ |
| 20. meet regularly with members of other health disciplines to identify problems and propose collaborative solutions | _____ | _____ |

to assume, 20 activities were listed on the questionnaire (see Table I). Some of the activities represented standard occupational health nursing practice, while others reflected a more advanced level of performance and included responsibilities that an OHN could assume after appropriate educational preparation. The list of 20 activities was developed from a review of articles describing the practice of the OHN and research findings regarding the role of the OHN. Content validity was established through review and revision by two experienced practitioners in the field and three educational consultants in the OHN specialty. Respondents were asked to indicate activities for which nurses in their corporation were currently responsible and those that they would like the nurses in their corporation to carry out.

Procedure

Questionnaires were sent to the Chief Executive Officers or Vice Presidents for Human Resources of a systematic sampling (Babbie, 1973) of 404 of the 808 corporations on the 1984 Forbes 500 list. Accompanying the questionnaire was a letter explaining the purpose of the study, a copy of *The Role of the Master's Prepared Nurse in Occupational Health Nursing* (prepared by the authors based upon materials developed by the American Association of Occupational Health Nurses) which described the knowledge, skills, and abilities of a nurse with advanced preparation

in the specialty, a form on which respondents could indicate whether they wished a copy of the survey findings, and a stamped, self-addressed envelope.

If a response had not been received from a corporation within four weeks after the initial mailing, another packet of materials was sent with a new cover letter. A total of 229 responses (57%) were received and, of these 12 were unusable due to incomplete data. Of the remaining 217 companies, 173 corporations (80%) had a health care department. Because the purpose of the study was to ascertain corporate executives' interest in nurses assuming additional and advanced responsibilities, only those corporations with existing health care departments were used in the following analysis.

RESULTS

The 173 corporations with health care departments were generally large. Almost two-thirds of the corporations (113) had more than 10,000 employees within the entire corporation, and 15.6% of these corporations (27) had more than 50,000 employees. Table 2 contains the size distribution of the corporations.

In addition to generally having a large number of employees, the responding corporations had several plants or business sites. Fifty-one corporations (30.4%) had more than 100 separate sites associated with the corporation, while only 24 companies (14.4%) had five or less separate sites. Table 3 lists

Table 2. Size Distribution of Corporations with Occupational Health Care Departments

| Number of Employees | Number of Corporations | Percent of Corporations |
|---------------------------|------------------------|-------------------------|
| Less than 5,000 employees | 36 | 20.7% |
| 5,000-9,999 | 24 | 13.6% |
| 10,000-19,999 | 35 | 20.2% |
| 20,000-29,999 | 26 | 15.1% |
| 30,000-39,999 | 14 | 8.0% |
| 40,000-49,999 | 11 | 6.4% |
| 50,000 or more employees | 27 | 16.0% |
| | 173 | 100.0% |

Table 3. Number of Separate Business Sites Per Corporation

| Number of Sites | Number of Corporations | Percent of Corporations |
|------------------------------|------------------------|-------------------------|
| Less than 5 separate sites | 24 | 14.4% |
| 5-10 separate sites | 15 | 9.0% |
| 11-20 separate sites | 19 | 11.4% |
| 21-50 separate sites | 29 | 17.4% |
| 51-100 separate sites | 29 | 17.4% |
| more than 100 separate sites | 51 | 30.4% |
| | <u>173</u> | <u>100.0%</u> |

the number of corporations with the various numbers of separate business sites.

As expected, the corporations with health care departments were primarily those associated with heavy industry such as manufacturing, construction, and mining. Almost 50% of all corporations ($n = 83$) represented these types of operations, as compared to 27.8% of the corporations ($n = 47$) associated with transportation and utilities, and 23.1% of the corporations ($n = 39$) from the service areas (trade, banking, services). Addi-

tionally, corporations involved in heavy industry were more likely to be the larger corporations, particularly corporations of 25,000 employees or more $\chi^2 (6, N=169) = 23.23, p < .001$.

Type of Personnel Employed in Health Departments

As might be expected, registered nurses comprised the largest group of health care professionals. Within the 173 corporations

Table 4. Personnel Employed within Health Care Departments of Corporations

| Type of Employee | Number of Employees | Percent of Corporations ($N = 173$) |
|-------------------------------|---------------------|--|
| Registered Nurses | 3,329 | 90.2% |
| Safety Engineers | 1,462 | 60.7 |
| Physicians | 967 | 60.7 |
| Industrial Hygienists | 403 | 45.1 |
| Counselors | 192 | 34.1 |
| Licensed Practical Nurses | 91 | 16.2 |
| Toxicologists | 328 | 15.6 |
| Emergency Medical Technicians | 529 | 15.0 |
| Physician Assistants | 61 | 12.7 |
| Epidemiologists | 46 | 10.4 |
| Laboratory, X-ray Technicians | 151 | 9.2 |
| Safety Coordinators | 34 | 3.5 |
| Nurse Practitioners | 14 | 3.5 |
| Safety Administrators | 107 | 2.9 |

with health departments, approximately 3,329 nurses were employed. A total of 90.2% of the corporations with health departments had at least one registered nurse, as compared to the percentage of corporations that employed other health and safety providers: safety engineers (61%), physicians (61%), industrial hygienists (45%), safety counselors (34%), licensed practical nurses (16%), emergency medical technicians (15%), physician assistants (13%), among others. Table 4 lists the type and total number of employees in the health departments, as well as the percentage of corporations that reported using each type of employee.

Of the 3,329 registered nurses employed, at least 595 (17.9%) had a baccalaureate degree and 57 nurses (1.7%) had Master's degrees. A majority of corporations (65%), employed at least one nurse with a baccalaureate degree, and 44 corporations (25%) had one or more nurses with Master's degrees in nursing. Fifteen corporations (8.7%) had at least one position for which a master's degree is required. These numbers represent minimal numbers of nurses because some corporations wrote in "many" or "1/location" rather than specifying the total number of nurses employed by the corporation at all of its sites.

Hours of Nursing Coverage

Within the 156 companies that employ registered nurses, 76 (48.7%) provided 24-hour nursing coverage. The remainder reported from 2 to 18 hours of coverage, or "varies" or "on-call". The amount of nursing coverage was significantly related to the type of industry of the corporation, with manufacturing corporations having, on average, almost twice the length of coverage of the other types of corporations: manufacturing, $M = 16.2$ hours; transportation and utilities, $M = 9.6$ hours; trade and banking, $M = 8.8$ hours; $F = (2, 156) = 6.86, p < .001$. This finding undoubtedly reflects the differences in business hours among these types of corporations. There was no significant difference among corporations as to extent of nursing coverage by size of corporation.

Current Responsibilities of Occupational Health Nurses

The 10 most frequently reported functions occupational health nurses perform are listed in Table 5 along with the percentage of corporations in which nurses are performing the activities. (For these analyses, only data from corporations employing OHNs was included.

Table 5. Activities Performed by Occupational Health Nurses in Corporations

| Activities | Percent of Corporations ($N = 156$) |
|---|--|
| Supervise the provision of nursing care for job-related emergency and minor illness episodes | 89.7% |
| Counsel employees regarding health risks | 87.7% |
| Provide follow-up of employees with workmen's compensation claims | 67.1% |
| Perform periodic health assessments | 62.6% |
| Plan & develop educational programs related to worker safety, health promotion, risk prevention | 61.9% |
| Evaluate the ability of absentees to safely return to work | 62.6% |
| Make recommendations for more efficient and cost-effective operation of the health care dept. | 58.7% |
| Develop special health programs particular to the needs of the corporation | 55.5% |
| Serve as a member of the health & safety committee | 53.5% |
| Conduct pre-placement physicals | 48.4% |

Consequently, the sample size was 156).

The most frequently cited responsibilities included supervising the provision of nursing care for job-related emergencies, counseling employees regarding health risks and providing follow-up of employees for workmen's compensation claims.

Depending on the type of industry represented by the corporation, differences were found in the activities performed by occupational health nurses. OHNs in corporations from heavy industry were more frequently identified as serving a member of the health and safety committee $\chi^2 (2, N=156) = 8.45, p < .01$, and conducting plant rounds regularly to identify hazards and potential violations $\chi^2 (2, N=156) = 6.39, p < .04$.

Activities engaged in by OHNs differed also in a few instances according to the size of the corporation. Corporations with fewer than 10,000 employees were less likely to have their OHNs involved in evaluating the ability of absentees to return to work, $\chi^2 (3, N=156) = 7.75, p = .05$, and less likely to have OHNs serve as members of the health and safety committee $\chi^2 (3, N=156) = 9.13, p$

= .03, possibly because there may have been fewer such committees in the smaller corporations. Other than these activities, responsibilities carried out by OHNs did not differ significantly across corporations of different sizes.

Desired Activities for Occupational Health Nurses

Employers also indicated which activities they would like nurses in their corporation to assume. The most frequently selected were: generate analyses of trends in health promotion, risk reduction, and health care costs, develop special programs particular to corporation needs, make recommendations for more efficient and cost-effective operations, conduct research regarding cost-effective program alternatives, and meet regularly with members of other health disciplines to identify problems and potential solutions. Table 6 provides the frequencies for the employers' 10 most desired activities by OHNs.

Size of the corporation was associated with the activities employers wanted OHNs to per-

Table 6. Activities Employers Would Like Nurses to Perform

| Activities | Percent of Corporations (N = 156) |
|--|--------------------------------------|
| Generate analyses on trends in health promotion, risk reduction and health care expenditures | 36% |
| Develop special health programs particular to the needs of the corporations | 29% |
| Make recommendations for more efficient and cost-effective operation of the health care dept. | 29% |
| Conduct research to determine cost-effective alternatives for health care programs & services | 29% |
| Meet regularly with members of other health disciplines to identify problems and propose collaborative solutions | 28% |
| Develop analyses for management noting statistics related to employee injury, exposure to hazardous substances and action taken to correct problem | 24% |
| Plan & develop educational programs related to worker safety, health promotion, risk prevention | 24% |
| Extend health programs to dependents | 24% |
| Assist in rehabilitation and relocation of disabled workers | 23% |
| Participate in employee safety orientation classes and programs for high risk areas | 23% |

Table 7. Activities Employers Would Like Nurses to Perform According to Type of Industry

| Activities | N | Type of Industry | | | χ^2 |
|---|-----|----------------------------------|------------------------|----------------------|--------------------|
| | | Manufac ^a (n = 83) | Trans/Util (n = 47) | Services (n = 39) | |
| Extend health programs to dependents | 168 | 25(18) | 9(10) | 2(8) | 9.97 ^{**} |
| Meet regularly with members of other health disciplines to identify problems, propose collaborative solutions | 168 | 26(21) | 13(12) | 4(10) | 6.42 [*] |
| Evaluate the ability of absentees to safely return to work | 168 | 19(15) | 9(8) | 2(7) | 5.83 [*] |
| Generate analyses on trends in health promotion, risk reduction and health care expenditures | 167 | 36(28) | 12(16) | 9(13) | 6.32 [*] |
| Conduct research to determine cost-effective alternatives for health care programs and services | 166 | 28(22) | 11(12) | 5(10) | 5.80 [*] |

Note: Figures in the body of the table represent frequencies of Yes responses with expected frequencies in parentheses.

^an = 83 for manufacturing corporations, n = 47 for transportation/utility corporations, n = 39 for service corporations.

* $p < .05$

** $p < .01$

form. Smaller corporations (less than 10,000 employees) were likely to indicate that they wanted the OHNs to carry out certain functions: plan and develop educational programs for worker safety, health promotion and risk prevention $\chi^2(3, N=172) = 10.28$, $p = .02$; extend health programs to dependents $\chi^2(3, N=172) = 9.11$, $p = .03$; provide follow-up of employees with workmen's compensation claims $\chi^2(3, N=172) = 8.47$, $p = .04$. Conversely, corporations that had the greatest number of separate plant sites were more likely to indicate that they wanted their nurses to perform periodic health assessments $\chi^2(2, N = 166) = 6.87$, $p = .03$ and evaluate employees' ability to return to work $\chi^2(2, N = 166) = 7.38$, $p = .03$.

The activities the employers desired OHNs to perform also differed according to the type of industry represented by the corporation. Table 7 lists those activities for which there were significant differences across industries.

As with the activities performed by nurses, in every instance, heavy industry corporations were more likely to indicate that they wanted their nurses to perform the function, as compared with the corporations representing transportation/utilities or service.

Type of Support for Nurses Returning to School

Within the corporations that had occupational health departments, a number of mechanisms for educational support were available for nurses. Seventy-four corporations (43.3%) offered tuition, while 70 corporations (40.9%) indicated that they would offer partial tuition. A leave of absence was a possibility in 49 corporations (28.7%), while time off without pay was an option in 32 corporations (18.7%). Only 16 corporations (9.4%) offered paid time-off to attend school. Twenty-three (13.5%) of the corporations offered none of

the mechanisms listed. Eighty-nine (52.4%) of the corporations offered only one of the five mechanisms for educational support.

The type of support available understandably varied according to the size of a corporation. The smaller corporations were less likely to offer leaves of absence $\chi^2(3, N=171) = 10.79, p = .01$, reflecting the reality that in many of the smaller corporations, the OHN may be the only health care provider available. Availability of support did not vary by type of industry represented by the corporation.

Criteria Considered in Decisions Regarding Support for Education

Numerous factors were considered by employers in the decision whether to provide educational support to their nurses. Of the 173 corporations with health departments, 76 corporations (44.2%) considered whether the academic program was related to the individual's plan for advancement. Sixty-nine corporations (40.1%) indicated that the individual's level of responsibility in his or her current position was an important factor, and for 55 corporations (32.0%), whether the individual planned to return to the present position was important. Other factors considered were seniority (19.2%), cost incurred in replacing the employee (7.6%), and grades obtained (5.8%).

Criteria for providing some form of support to nurses returning to school varied according to the size and industry. As might be expected, the smaller corporations identified significantly fewer criteria that they would consider. The smaller corporations were less likely to consider such factors as length of educational program $\chi^2(3, N=172) = 16.82, p < .001$, seniority $\chi^2(3, N=172) = 11.39, p = .01$, whether the employee planned to return to his or her present position $\chi^2(3, N=172) = 11.33, p = .01$ and level of responsibility in current position $\chi^2(3, N=172) = 7.65, p = .05$. The heavy industry corporations were more likely to offer support according to a person's seniority $\chi^2(2, N=168) = 6.58, p = .04$. Some of these significant differences in criteria for providing educational support are probably

influenced by the factors involved in the corporation's initial decision regarding whether to offer support of any kind.

DISCUSSION

Although a number of surveys of OHNs have been conducted regarding their job responsibilities and interest in additional education, little previous information has been gathered regarding the perspectives of the employers of OHNs. To a large extent, employers influence the practice of occupational health nursing within a corporation. Understanding their perception of what OHNs currently do, as well as what responsibilities OHNs could be assuming is important in determining the direction of occupational health nursing practice. Most previous studies, conducted on occupational health nursing practice and education, have focused on the perspectives of OHNs. This study provides information on the employer's perspective regarding the current practice of OHNs and ways they could expand that practice. Additionally, this survey offers data that clearly indicate that a substantial number of influential employers (a) want OHNs to assume additional responsibilities, and (b) are prepared to offer some educational support to nurses pursuing advanced preparation in the specialty.

Consistent with the results of previous studies, this study affirms the pivotal roles of OHNs in work settings. The nurse is the most frequently employed type of health care provider. In this study, 90% of the corporations reported employing at least one OHN while only 60% of the corporations employed safety personnel or physicians, the next most frequently employed professionals.

Consistent with findings from other studies relatively few OHNs have baccalaureate degrees (17.9%) and very few have Master's degrees (1.7%). Limited educational preparation for most OHNs may be due to two factors. First, data obtained in another survey conducted by the authors indicated that a large percentage of OHNs are older and, consequently, reluctant to return to school (Lusk, Disch, & Barkauskas, 1986). Second, many OHNs are the only health care professionals

in their settings and, therefore, encounter difficulties in trying to get time off from work. While OHNs may wish to return to school, support from their employers is particularly important in facilitating advanced education.

The fact that a number of employers indicate that they would be willing to offer support to nurses pursuing advanced education in occupational health nursing is encouraging. A large majority of the corporations (86.7%) indicated that they would be willing to provide some form of support, with a number of corporations indicating that they would provide more than one type of support to nurses (e.g., tuition, books, time without pay). While it is probable that projections about support overestimate the amount of support that actually would be given, the finding that such a large number of employers have indicated a willingness to offer some form of support is encouraging. Much of the support is contingent upon the nurse's commitment to return to work or, as is more often the case, the ability of the nurse to continue working while attending school.

Examination of the activities that nurses are currently performing suggests that OHNs are engaged in a variety of direct care activities, differentiated somewhat according to the size and type of industry represented by the corporation. In contrast with the findings of Chovil, et al. (1984), a significant number of employers would like to expand the scope of OHN activities. Looking at those activities that employers would like nurses to assume, many reflect a concern for cost-containment. Of the top ten activities cited, three specifically relate to cost-containment. Also of note is the interest expressed by more than 25% of the corporations that nurses engage in research. In light of the widespread ignorance regarding nurses conducting research, it is heartening that this significant proportion of corporations want nurses to conduct research.

Employers' support for nurses' involvement in program development and evaluation and research may stimulate nurses' interest in

practicing in OHN settings. These data suggest that there is now an opportunity for nurses to assume a more autonomous role with expanded responsibilities.

In conclusion, data from this survey reflect an interest by employers in occupational health nurses performing additional responsibilities and employers' willingness to provide support to nurses as they develop these skills and abilities. Moreover, the types of responsibilities that employers indicated they would like OHNs to assume suggest that employers are interested in nurses participating more fully, not only in direct care activities, but also in the identification and planning of new strategies for program development.

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