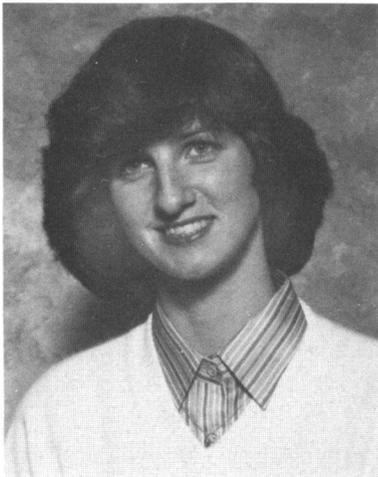


# The Occupational Health Nurse: Safety's Overlooked Resource

---

Rebecca S. Simons, R.N., B.S.N.



---

*Ms. Simons is Occupational Health Nurse, Division of Safety Research, National Institute for Occupational Safety and Health, Morgantown, West Virginia. As a Commissioned Officer in the U.S. Public Health Service, she is currently on long-term training at the Johns Hopkins University School of Public Health in the occupational health nursing component of the Master of Public Health program.*

---

## INTRODUCTION

With their skills, knowledge, their rapport with employees, and by the sheer number of their ranks, Occupational Health Nurses (OHNs) are in an excellent position to participate in many preventive health activities. *The National Occupational Hazard Survey (1977)*<sup>1</sup> noted that only .7% of this country's plants employ a physician full time, and Kerr<sup>2</sup> maintained that there are less than 2000 full-time occupational health physicians who provide medical treatment to all of the employees in the U.S. In contrast, *A Nationwide Survey of the Occupational Safety and Health Workforce (1978)*<sup>3</sup> placed the number of OHNs employed by industry at 8,980. In addition, safety engineers and industrial hygienists are concentrated in large industries; small- to medium-sized companies have either a part-time safety officer or none at all. Consequently, in many cases, the OHN is the only full-time safety and health professional in the plant and, as such, is the professional responsible for coordinating the safety and health needs of the employee.

The importance of the OHN's involvement with prevention activities becomes obvious when it is noted that health care is moving toward primary prevention. With this change, there should soon be a change in the major thrust of health from treatment, to the prevention of injury and disease. And yet, the role that the occupational health nurse plays in these prevention activities, and especially in the area of safety, remains essentially unexplored. More accurate information about the extent of nursing's involvement in safety is needed to maximize this profession's effectiveness. Presented in this report is an initial description of the variety of prevention activities that occupational health nurses are now performing.

Only a limited amount of work has been reported concerning the role of the occupational health nurse in such safety-related areas as accident prevention. Cannavo<sup>4</sup> and Ossofsky,<sup>5</sup> both of whom are nurses, proposed incorporating safety-related responsibilities into the role of the

TABLE I  
PROFILE OF INDUSTRIES VISITED

Size # of Employees	State	Type of Industry	# of Nurses	# of Health Facilities	Is the Nurse a member of Safety Committee?	Is the Safety Officer full or part-time?	# Sites Visited
<i>Small</i>							
165	Florida	Underwater Research	1	1	Yes	Part-time	1
170	New Hampshire	Lumber Mill—Bobbin Manufacturing	1	1	Yes	Part-time	1
<i>Medium</i>							
250	Michigan	Foundry	1	1	Yes	Part-time	1
450	Michigan	Bakery	1	1	Yes	Part-time	1
450	Arizona	Telephone Electronics	1	1	Yes	Part-time	1
<i>Large</i>							
20-25,000	Indiana	Steel Mill	12	2	No	Full-time	2
	Washington, D.C.	Federal Employee Health	225	148	No	Part-time	5
800	Michigan	Trucking (Corporate Hdqtrs)	1	1	N/A *	Full-time	3
1085	West Virginia	Chemical	2 full-time 1 part-time	2	No	Full-time	1
9-10,000	Arizona	Electronics	7	3	No	Full-time	1
9200	Arizona	Aerodynamics Research	7	3	No	Full-time	1
3000	California	Electronics	3	1	No	Full-time	1
1400	South Carolina	Manufacturing—Appliance	1 full-time 1 part-time	1	N/A **	Part-time	1
650	South Carolina	Manufacturing—Carpet	1	1	N/A **	Part-time	1

\*There was no safety committee at this site.

\*\*In these two plants, the Safety Officer is a nurse. Since her official capacity in the Safety Committee is that of the safety officer and not of the nurse, these two were excluded from this section.

occupational health nurse. Krikorian<sup>6</sup> and Reznikoff,<sup>7</sup> who are both non-nurses in management positions, suggested that the nurse was competent to become the coordinator for the employee protection program or the safety director. In other words, while the two managers consider the safety role to be separate from the nursing role, the two nurses suggested incorporating the safety tasks directly into the nursing position.

Little direct research has been done which delineates the role of the nurse in industry. One study was conducted by Bender and Fagerlund.<sup>8</sup> Fourteen occupational health nurses in North Dakota (11 full-time and three part-time) were interviewed to determine the kinds of tasks they performed. Of the 24 tasks elicited, all were totally health related except "teaching industrial safety and health practices." This was the only safety-related task noted and was performed by 75% of the North Dakota OHNs.

Although miscellaneous comments made by these OHNs indicated their interest in incorporating safety tasks into their role, no research studies were found which described how this could be achieved.

Two other general comments may be made about the literature. First, there is little information regarding the

way OHNs define the term, "safety." Second, since role extension is an important issue in nursing today, some occupational health nurses are asking how their role can be extended to allow them to contribute to the reduction of injuries while still maintaining their identity as a nurse.

Since the literature review did not reveal enough information to develop a formal task analysis of the occupational health nurse's role in the area of safety and prevention, a survey to obtain preliminary information was seen as a necessary first step in the development of a comprehensive research study. In addition, the information obtained during this survey could have some immediate impact on both the OHN and industry by stimulating further research, by aiding in the development of competency-based educational programs, and by demonstrating the diverse interests and capabilities.

#### FIELD VISITS

The survey was conducted in 14 establishments; Table I summarizes the essential characteristics of the industrial establishments which were visited. The survey sites were selected according to several criteria; the nurses had to be active and interested in safety, and the establishments had

to vary in size, type of industry, and geographic location. Several state and local constituent presidents of the American Association of Occupational Health Nurses assisted by recommending nurses for the survey; other site visits were scheduled through personal contacts. The selection strategy was successful in locating OHNs actively participating in the safety programs of their establishments. The sample, however, should not be regarded as being representative of occupational health nurses as a group.

The establishments were visited for one- to three-day periods, during which the nurses were interviewed and observed in their daily routines. At several of the sites, the safety manager was also interviewed concerning the plant safety program and the nurse's role in it. Most visits involved a nurse-guided tour of the facility which provided additional information about the nurse's activities and awareness of hazards.

The interview itself was conducted in an informal atmosphere. Although several topics were discussed, the interview was basically an unstructured conversation about occupational health nursing. After 10 facilities had been visited, the observations were refined and a list of tasks was prepared. The tasks described were either performed by the nurse during the visit or were reported during the

interview. This list was presented at the conclusion of the remaining interview for the OHN's information, suggestions, and revisions.

#### SAFETY TASKS

Thirty-four safety-related tasks were identified from the interviews and observations of the OHNs visited. Table II lists these tasks. Nine of the tasks were performed by more than 50% of the nurses interviewed. The remaining 25 tasks were performed by less than half of the nurses surveyed.\*

The nine tasks performed most frequently by the occupational health nurses can be viewed as a core set of activities which are performed by many OHNs throughout the country. The majority of these tasks are dependent upon interviewing and counseling skills, two of an OHN's most valuable assets. These skills are used daily. For example, when an employee is injured, the OHN interviews the person, both formally and informally, to obtain information about how the accident occurred, what job was being performed, and what the person's feelings about the

*\*The percentage of nurses performing each task may, however, be higher than indicated, since only those tasks actually observed or reported have been recorded in Table II. Due to the unstructured interview format, several of the tasks may not have been reported by some of the nurses interviewed.*

TABLE II  
TASKS NURSES ARE PERFORMING IN SAFETY-RELATED AREAS

Tasks Performed by Fewer Than 50% of OHNs Surveyed	Tasks Performed by More Than 50% of OHNs Surveyed
A. Injury Statistics and Epidemiology	
<ul style="list-style-type: none"> <li>• Prepares monthly and quarterly reports for management noting these statistics and explanatory tables</li> <li>• From these statistics, determine high hazard areas or groups; notifies appropriate supervisors</li> </ul>	<ul style="list-style-type: none"> <li>• Remains alert for possible connection between apparently unrelated accidents or illness</li> <li>• Keeps accident and injury statistics</li> </ul>
B. Hazardous Substances	
<ul style="list-style-type: none"> <li>• Is aware of new processes in plant and the hazards involved</li> </ul>	<ul style="list-style-type: none"> <li>• Keeps up-to-date on hazardous substances, appropriate safety data sheets and notification of employees</li> </ul>
C. Job Requirements	
<ul style="list-style-type: none"> <li>• Does pre-placement physical and recommends job assignment on the basis of the physical</li> <li>• Consults with safety officer in evaluation of pre-placement physical to assure safe job placement</li> </ul>	<ul style="list-style-type: none"> <li>• Is aware of what type and amount of work each job requires</li> <li>• Evaluates ability of absentees to safely return to work</li> </ul>
D. Consultant— <i>Liaison</i>	
<ul style="list-style-type: none"> <li>• Answers questions from safety officer regarding her opinion of what happened and whether the description of the accident and type of injury are compatible</li> <li>• Mediates between employee and safety officer by <i>gently</i> obtaining requested information without scolding or reprimanding them</li> </ul>	<ul style="list-style-type: none"> <li>• Consults and collaborates with a large variety of people, i.e.: safety, personnel, union, management, to provide a safer working environment</li> <li>• Notifies safety officer of suspicious injuries which may need investigation</li> <li>• Receives complaints from employees, acts on them, and/or refers them to the safety committee and/or safety officer</li> </ul>

(continued)

# SAFETY'S OVERLOOKED RESOURCE

TABLE II (continued)

TASKS NURSES ARE PERFORMING IN SAFETY-RELATED AREAS

Tasks Performed by Fewer Than 50% of OHNs Surveyed	Tasks Performed by More Than 50% of OHNs Surveyed
E. Counseling—Education	
<ul style="list-style-type: none"> <li>• Participates in employee's safety orientation classes by lecturing, demonstrating, reinforcing safety rules and regulations</li> <li>• Publishes articles for the company newsletter</li> <li>• Plans general safety courses and special programs for high-risk areas</li> <li>• Encourages display of safety posters and other safety information</li> </ul>	<ul style="list-style-type: none"> <li>• Offers safety counseling to employees on a one-to-one basis</li> </ul>
F. Safety Committee	
<ul style="list-style-type: none"> <li>• Is a member of the safety committee</li> <li>• Reviews accident reports, establishes causes</li> <li>• Tours plant to identify hazards and violations</li> <li>• May initiate action to resolve hazards on her own</li> <li>• Monitors progress of action taken on the committee's recommendations</li> <li>• May initiate a committee if plant does not have one or revamp the committee, if one is existent already</li> </ul>	
G. Accident Investigation	
<ul style="list-style-type: none"> <li>• Initiates accident report; may include employee's description of accident and description of injury</li> <li>• Notifies supervisor of probable cause and encourages him to talk to employee</li> <li>• Interviewing and investigation with or without line foreman or supervisor</li> </ul>	
H. Safety Equipment	
<ul style="list-style-type: none"> <li>• Is aware of protective clothing necessary for all areas</li> <li>• Remains up-to-date on new and available safety equipment</li> <li>• Orders and distributes safety equipment; fits equipment as necessary</li> </ul>	
I. Ergonomics	
<ul style="list-style-type: none"> <li>• Works with safety engineer in locating areas where there is an ergonomics problem and in designing a solution by using her knowledge of human anatomy and physiology</li> </ul>	
J. Miscellaneous	
<ul style="list-style-type: none"> <li>• Encourages development of safety manual if there is not one in existence. Assists in revision of pre-existing manual</li> </ul>	

accident were. As a result, the OHN may notify the safety officer of any suspicious injuries or other related accidents and, by learning more about the tasks performed by the employee, the OHN can offer more effective counseling on safe work behavior.

The remaining 25 tasks, referred to as an expanded set of activities, are more obviously safety-related. Many of these tasks require expertise which is not part of traditional nursing curricula. Some activities which typify these expanded tasks are: the OHN identifies hazards and initiates action to resolve those hazards, plans health and safety programs, publishes articles for the establishment's

newsletter, and initiates accident reports. It is noted that much of the time these tasks are performed independently because the OHN is frequently the only full-time safety and health professional in the establishment.

Plant size was the most important factor influencing the number and type of safety-related activities the OHN is engaged in. Nurses in small establishments of less than 250 employees and medium-sized establishments of 350-500 employees performed more safety-related tasks than those nurses in the large establishments of more than 500 employees.

Involvement with the safety committee and accident

investigation account for the additional tasks performed by the OHNs in the small- and medium-sized establishments. While all except one of the facilities reported having a safety committee, only the OHNs in small- and medium-sized establishments were working with them. They were familiar with the potential and real hazards in their facilities, toured the facility regularly to identify these hazards as well as to observe the employees, investigated accidents, and initiated action to resolve hazards and safety violations. In addition, more of these nurses utilized their accident and injury statistics to identify high risk groups of employees and were more familiar with the personal protective equipment necessary for each job. Few nurses in the large establishments performed any of the expanded tasks.

#### OTHER OBSERVATIONS

In addition to size, this limited survey suggested that geographic location may also have influenced the uneven distribution in the number of tasks in the core and the expanded sets of activities. Occupational health nurses interviewed in the two western states surveyed — Arizona and California — were responsible for pre-placement physicals and played a significant role in placing employees on jobs which suit their capabilities. Although OHNs surveyed in other regions had some responsibility for evaluating the ability of absentees to return to work, none reported doing pre-placement physicals to evaluate a potential employee's ability to work safely at a new job.

Although the majority of nurses interviewed preferred to maintain their identities as nurses, many were able to incorporate the "non-nursing," safety-related tasks into their roles and seemed to increase their job satisfaction as a result. This impression has important implications for expanding the OHN's role, and it needs to be empirically validated.

At least two problems were evident in those plants in which the OHN did not take an active part in the work of the safety committee.

One problem was that "safety" had very different meanings to health professionals on the one hand, and safety engineers on the other. The unaffiliated nurse would define "safety" as the prevention of all occupational illness and injury, and would characterize first aid instruction and cardio-pulmonary resuscitation as safety activities. In speaking of "safety," the safety engineer would mean only the prevention of on-the-job injuries. The OHNs having a voice on the safety committee seemed to rectify this. The engineer's concept of safety was broader. The OHN's concept of safety was more differentiated.

When the OHN was not on the safety committee, still another problem was in evidence. The OHN did not recognize the milieu immediately at hand for applying the safety principles traditionally learned in the hospital. On the safety committee, the OHN had a structured, convenient outlet for knowledge awaiting application.

Serving on the safety committee can be advantageous to the occupational health nurse in other ways as well. The

OHN becomes more familiar to the employees during the safety committee's hazard identification tours. The workers identify the OHN as someone who is concerned, not only about their working conditions, but also with them personally, and as someone to whom they can bring their problems. The OHN will be able to observe employees in their various jobs and gain a better understanding of the physical requirements of the job. This can be an aid in determining an employee's ability to do an assigned job, whether that person is a new employee or one returning to work after an injury or illness. OHNs can gain an awareness of the hazards in the employee's workplace and methods for their control. The firsthand knowledge of how accidents occur can be especially valuable to the OHN during employee counseling. Members of the safety committee will also be kept up-to-date with new processes, chemicals, or other hazardous substances used within the plant. This knowledge will permit effective monitoring of employees and will aid OHNs in treating exposed employees more efficiently.

#### RECOMMENDATIONS

The data collected indicate that occupational health nurses appear to be underutilized in many industries today. A program which utilizes their professional skills more successfully would not only be more gratifying to them, but would be more beneficial to both management and the employees. Several of the companies surveyed reported dramatic reductions in both worker's compensation costs and injury rates when OHNs have been given responsible safety and/or health positions. This trend suggests the need to further investigate the impact which can be expected from expanding the role of OHNs.

The information gained in this survey is intended as a first step toward the development of a more comprehensive study of the OHN's role in the area of safety. (A working definition of "safety," however, as it is used by OHNs, is an essential first step to any studies in this area.) The preliminary identification of core and expanded tasks will permit the development of questionnaires designed to elicit the data necessary for a comprehensive task analysis. A more intensive analysis of the interaction between safety and nursing could be undertaken by examining that group of OHNs performing many of the expanded tasks. Such an analysis would determine the reasons their roles have been expanded, their occupational needs, and their level of job satisfaction.

Additional research could be designated to determine the actual effect the occupational health nurse has on the health and safety of the employee. Questions to raise might be these: What is the OHN's effect on the reduction of worker's compensation claims? How effective is the OHN in interviewing an accident victim and determining the cause of the accident, as compared with the safety officer? What clear-cut contribution can the OHN make as a discrete member of an occupational safety and health team. These studies, as well as others, need not be confined to

government organizations, for the data are in the workplace, where much of this work could be initiated.

Educational opportunities for occupational health nurses should be designed to supplement or update their present knowledge to allow them to perform their duties more efficiently and to expand their base of knowledge. The results of this survey indicate that educational opportunities might be more appropriate if they were designed to meet the needs of at least two groups of OHNs. The initial courses should address all OHNs and be derived from the core group of tasks. This could be part of the nurses' initial education or orientation to occupational health nursing. Additional courses could then be prepared for those nurses performing the expanded tasks. These might be upper level college classes or advanced continuing education classes. A variety of these classes could be offered to assist the OHN in areas such as statistics and epidemiology, accident investigation, employee education, and ergonomics.

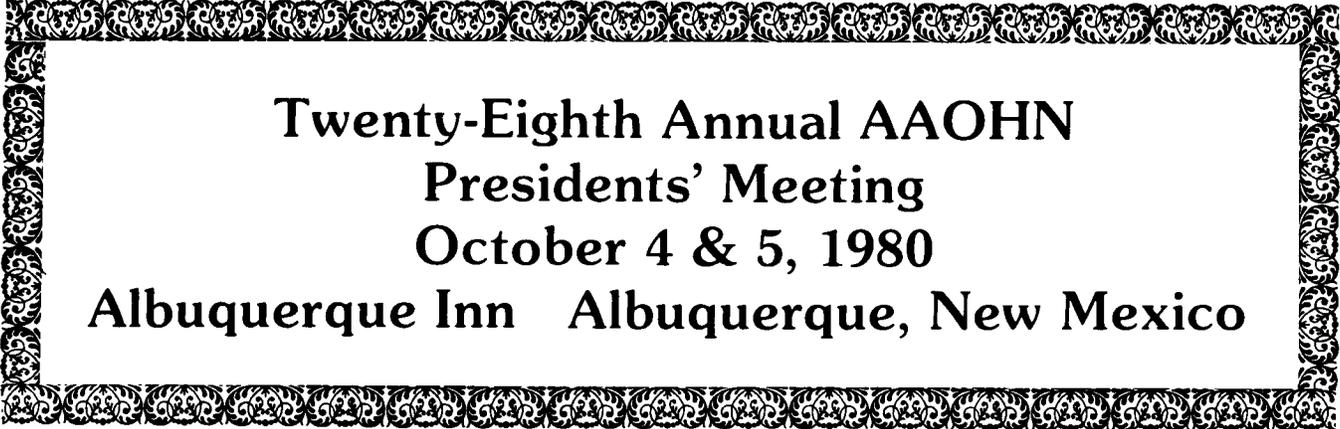
Also important is the development of what Burkeen<sup>9</sup> calls "common bonds" between the nurse and the other safety and health team members. The common bonds would serve to establish the cooperative relationships necessary between these professionals. Role models for the OHNs' intervention in safety and for their interaction with all team members (such as the safety officer, the industrial hygienist and management) need to be developed so that all safety and health professionals will be working cooperatively toward the common goal of maintaining the workers' on-the-job safety and health.

The role of the occupational health nurse in the area of safety is being discussed with increased frequency. Several factors contributing to this include a need for assistance

with the safety programs of some small- and medium-sized establishments, the increased emphasis on primary prevention, and the OHN's desire to work with fellow health and safety professionals. Some OHNs have demonstrated their ability to positively effect the safety and health of the employee. While safety is not the only part of a nurse's job, it is an important function. With effective models outlined for them, and with comprehensive education, OHNs can incorporate safety skills into their daily regime which will improve the health and welfare of all employees.

#### REFERENCES

1. *National Occupational Hazard Survey. Volume III: Survey Analysis and Supplemental Tables.* Department of Health, Education, and Welfare, NIOSH, Dec 1977, pp 78-114.
2. Kerr LE: *Impact of National Health Insurance on Occupational Safety and Health Services for Small Business.* Department of Health, Education, Welfare, NIOSH, May 1977, pp 77-172.
3. *A Nationwide Survey of the Occupational Safety and Health Work Force.* Department of Health, Education, and Welfare, NIOSH, July 1978, pp 78-164.
4. Cannavo JJ: The industrial nurse's role in occupational safety. *Occup Health Nurs* 22(2):7-9, Feb 1974.
5. Ossofsky EW: OHNs assume a prominent role on the health and safety team. *Occup Health Safety* 47(1)41-44, Jan-Feb 1978.
6. Krikorian M: The occupational health nurse's emerging role in administering the plant employee protection program. *Occup Health Nurs* 26(8):20-21, Aug 1978.
7. Reznikoff PA: Safety, management and nursing. *Occup Health Nurs* 22(6):26-28, June 1974.
8. Bender J, Fagerlund P: A profile of industrial nursing practices in North Dakota. *Occup Health Nurs* 24(5):20-22, May 1976.
9. Burkeen O: The nurses and industrial hygiene. *Occup Health Nurs* 24(4):7-10, Apr 1976.



**Twenty-Eighth Annual AAOHN  
Presidents' Meeting  
October 4 & 5, 1980  
Albuquerque Inn Albuquerque, New Mexico**