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**A New Look at Nursing Safety:
The Development and Use of JHAs in the Emergency Department**

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Abstract

Nationally, a critical nursing shortage looms. In addition to the fact that nurses are increasingly in short supply, the aging of the nursing profession combines to present a daunting challenge to the healthcare field. Exactly why students may not be choosing the nursing profession in adequate numbers is not known. However, several factors inherent to nursing are suspected. For example, the strong likelihood of experiencing severe occupational injuries (i.e., back injury) or illnesses (i.e., occupational stress, or some blood borne pathogen) or workplace violence, which nurses face daily, are arguably primary motivators for nurses to leave the profession, thus adding to the shortage. Presumably, the safety of nurses themselves and subsequently, that of their patients, depend directly on the degree to which nurses can identify and control the varied occupational hazards specific to jobs. This study reviews the nature and scope of occupational nursing hazards and the degree to which current nursing education and position descriptions equip nurses to recognize and abate the hazards inherent in their jobs. Further, it will present a research design that addresses the lack of formal training nurses currently receive regarding job-related hazard recognition and avoidance strategies.

Introduction

It is widely acknowledged that nurses are crucial component of the US healthcare system, holding about 2.3 million jobs (U.S. Department of Labor, 2004).

Nurses are employed in essentially every kind of healthcare setting. The wide range of practice settings include public health (national, state and county level), skilled nursing facilities, community based residential care centers, hospitals (public, private and teaching), clinics, urgent care centers, offices, industrial (occupational) settings and home healthcare. Nurses are often the linchpin component across a wide continuum of care. A nurse's professional skills and training contribute significantly to successful patient outcomes in a variety of care settings--from acute and tertiary care to prevention and wellness programs. It is therefore no surprise that the acquisition and development of a nurse's skill set and its application across healthcare settings require advance and detailed educations from accredited and standardized curricula, as well as professional credentialing procedures.

Purpose

The purpose of this paper is to investigate two empirical questions: 1) the degree to which occupational safety and health control strategies are taught in accredited nursing schools, and 2) the degree to which nursing position descriptions incorporate occupational hazard recognition and control by nurses, supervisors and administrators.

This paper is organized as follows: First, we briefly summarize the research literature regarding nursing occupational hazards. Second, we discuss the current nursing educational requirements followed by our report on a systematic analysis of several Veterans Affairs (VA) Emergency Department (ED) position descriptions (PDs), an analysis designed to examine the degree to which safety is considered a formal part of the VA ED nurses' PD. Finally, this paper will describe a research design intended to create an administrative outcome that will enhance the nurse's ability to protect her or him from identified job hazards.

Characteristics of Nursing Hazards



As a large and complex enterprise, the healthcare industry is characterized by both highly skilled and credentialed professional with sophisticated technological equipment and procedures. In addition, the healthcare industry operates within and is subjected to both governmental and external reviewing and accrediting bodies as well as a rapidly changing legal environment. The U.S. Department of Health and Human Services (DHHS) reports that the healthcare industry is the second fastest growing sector in the US today, with more than 12 million workers total. In addition, the DHHS also reports that, unlike other hazardous industries, such as agriculture and construction, preventable injury rates in healthcare have increased over the past decade (Department of Health and Human Services, 2004).

Nurses are an integral part of clinical services and have primary responsibility for a significant proportion of patient care in most healthcare settings. As such, nurses are confronted with a variety of biological, physical, and chemical hazards during the course of performing their duties. The level of occupational safety and health training and resources available to nurses, and the incorporation, implementation, and use of such training and resources with management support and leadership are critical factors in preventing adverse outcomes from the occupational safety and health hazards nurses are exposed to on a daily basis.

Given the nature of their working environment, responsibilities, and duties, nurses are on the frontline of numerous occupational hazards. Consider the following categories of occupational hazards nurses face today:

- ✓ Communicable (or Contagious) Diseases:
 - Blood borne pathogenic exposures (HIV, HCV, HBV, etc) - due to percutaneous needlestick injuries (NSIs). As mentioned above, between 600,000 and 800,000 NSIs occur each year in all healthcare settings, with injections (21%), suturing (17%) and drawing blood (16%) the top three exposures (Perry et al., 2003).
 - Airborne exposure from various diseases such as SARS, Tuberculosis (TB), Methicillin Resistant Staph. During 2003, CDC received 34 reports of TB outbreak activity (Department of Health and Human Services, 2004b). In June 2004, a healthcare worker died of TB (Simpson, 2004)
 - Other or combination exposures such as scabies and Norovirus (NIH web site, accessed 3/8/05).
- ✓ Musculoskeletal injury exposures:
 - Patient movement and handling - 38% of all nurses are affected by back injuries, nearly all of these injuries (98%) are due to nurses lifting and moving patients manually (Meier, 2001).
 - Other work-related musculoskeletal disorders - studies of upper extremity musculoskeletal disorders in nurses have reported prevalence rates of shoulder problems in 43-53% of nurses (Lagerström et al., 1995) and neck injuries between 31-48% (Ando et al., 2000).
- ✓ Chemical – related to patient treatment and maintenance of a proper environment, e.g., disinfectants and sterilants (such as glutaraldehyde, ethylene oxide), hazardous drugs, and latex exposure among others (U.S. Department of Labor, OSHA, 2004).



- ✓ Workplace violence exposures – Compared to other healthcare workers, nurses face a higher level of risk for violence. More than 9.5% of general nurses working in general hospitals are assaulted annually (Wells & Bowers, 2002). Gerberich et al. (2004) report that rates for both physical (13.2) and non-physical (38.8) violence are on the rise for emergency department, home/long term care, intensive care psychiatric/behavioral care nurses

A patient's rapid change in physical and psychological health places nurses at higher risk for injury than most occupations. The rate of nursing injuries is second to construction workers. Medication reactions, stress and confusion may result in patient combative behavior that places the nurse in a hostile work environment. In addition, the unpredictability of subtle changes in some patients during ambulation and transfers often lead to musculoskeletal injuries sustained by nurses after attempting to avert patient injury.

- ✓ Unmanaged stress – In a recent American Nursing Association (ANA) survey, nurses cite stress and overwork as their top safety concern (American Nurses Association, 2004).
- ✓ Terrorism/chemical spill victims - Hospital personnel may be faced with managing patients exposed to unknown chemicals. Hospital personnel need to be trained to reduce the possibility of health hazards spreading from ambulances and emergency rooms (OSHA Interpretation web site, accessed 6/24/04). Another relatively new workplace hazard is the potential for terrorist attacks in the United States. The threat is real for Emergency Department nurses who play a critical role as first receivers for these types of disasters and thus are at risk for exposure to chemical, biological, radiological, nuclear, and explosive (CBRNE) substances. Healthcare facilities may become primary or secondary targets for terrorists. Therefore, it is paramount that nurses learn new safety skills that address these additional complex and unpredictable types of exposure. Indeed, a recent RAND-NIOSH study states that a new approach is perhaps needed to protect emergency responders in or during terrorist attacks and disasters (Department of Health and Human Services, 2004c).

Occupational Safety and Health Administration (OSHA) List of Principle Hazards to Nurses

OSHA lists several specific hazards faced by the ED nurse. The following are the principle exposures specific to ED nurses according to OSHA (U.S. Department of Health, 2004):

- 1) Bloodborne pathogens.
- 2) Hazardous chemicals - e.g., EtO (ethylene oxide) from spilled medications, carcinogenic materials, noxious fumes and flammable liquids.
- 3) Slips/falls - high traffic and compact treatment spaces are a combination for risk.
- 4) Latex allergy – e.g., reaction to gloves made from natural latex and/or materials used to make the gloves.
- 5) Equipment hazards - e.g., electrical shock (e.g., defibrillators).
- 6) Tuberculosis.
- 7) Workplace stress – “Studies suggest work stress may increase a person's risk for cardiovascular disease, psychological disorders, workplace injury, and other health problems. Early warning signs may include headaches, sleep disturbances, difficulty



concentrating, job dissatisfaction, and low morale.” – “factors such as shift work, long hours, fatigue, and intense emotional situations, (e.g., the suffering and death of patients).”

- 8) Methicillin resistant staphylococcus infections.
- 9) Workplace violence - beyond physical attacks - cursing, threats, etc.
- 10) Terrorism – e.g., receiving victims from an unknown terrorist incident.
- 11) Physical agents - such as flying objects - eye injury risk.

Nursing Hazard Example – Percutaneous Needlestick Incidents (NSIs)

To better describe the nature of the nursing safety issue, one can characterize the frequency and severity of specific nursing exposures. Of all healthcare workers, arguably nurses (RNs and LPNs) are at most risk for needlestick. In fact, the annual rates of occupational blood exposure were highest for nurses and midwives (6.5 per 100 compared to 3.5 of overall, and nurses tend to be exposed 4.27 times more often than physicians (Denis et al., 2003). Ippolito et al. (1997) found that most NSIs occur when using syringes. Interestingly, in a study by Perry et al. (2003), the overall number of percutaneous needlesticks in hospitals actually fell from 2,025 in 1999 to 1,929 in 2001.

In addition, injuries from contaminated needles and other sharp devices used in healthcare settings have been associated with transmission of more than 20 different bloodborne pathogens to healthcare workers (Chiarello, 1992). Of these, HIV, HBV and HCV comprise the greatest risk to healthcare workers (Ippolito et al., 1997). Thus, NSIs remain an urgent occupational hazard for nurses in healthcare settings.

Finally, though it's difficult to quantify precisely, the U.S. General Accounting Office (GAO) estimates the costs of post-exposure prophylaxis (PEP) in healthcare following an accidental needlestick can range from \$500-\$3,000 per needlestick injury (GAO, 2000). If one assumes a conservative estimate for both the frequency of NSIs at 600,000/year (GAO, 2000), one finds that NSIs may cost an estimated \$300,000,000/yr. to \$1,800,000,000/yr.

From its inception, one of OSHA's principle missions has been to monitor workplace environments, including thousands of different jobs in a wide variety of industries. Although OSHA's regulations certainly apply to the healthcare industry, the application of hazard remediation strategies has neither been proactively nor uniformly applied. Consistent with the Hippocratic Oath of “do no harm,” prevention of occupational injuries in the hospital setting is generally thought almost exclusively in terms of the patient not the care giver. An example of a “reactive” safety approach for nursing is the recent emphasis placed on blood borne pathogens, vis-à-vis the Needlestick Prevention Act in 2001.

Nursing Core Competencies and the National League for Nursing Accrediting Commission (NLNAC)

Today, there are many professional levels of nursing education including associate's degrees, diploma programs, bachelor's, master's and doctoral degrees. All accredited academic nursing programs are required by the National League for Nursing Accrediting Commission (NLNAC) to meet stringent academic course content requirements. Accreditation offers a profession several advantages, including quality assurance and consistency in the curriculum across various academic and professional programs. As such, it is possible to evaluate the core accreditation requirements of nursing programs to determine the



degree to which safety skills, knowledge and the level of proficiency that are built into the nursing curriculum.

Using an outcomes-based approach to nursing education, the NLNAC requires that nursing programs demonstrate an impressive array of core competencies which need to be satisfied if the nursing school is to achieve accreditation. The NLNAC (2004) core competencies include:

1. Care for the community's health.
2. Expand access to effective care.
3. Provide evidence-based, clinically competent contemporary care.
4. Understand the role and emphasize primary care.
5. Development of outcomes-based measures to assure the continuity of care, active management of patients, accountability, cost effectiveness, etc.
6. Insure care that balances individual, professional, system and social needs.
7. Involve patients and families in the decision making process.
8. Promote healthy lifestyles.
9. Assess and use communications and technology effectively and appropriately.
10. Improve the healthcare systems operations and accountability.
11. Understand the role of the physical environment.
12. Exhibit ethical behaviors in all professional activities.
13. Manage information.
14. Accommodate expanded accountability.
15. Participate in a racially and culturally diverse society.
16. Continue to learn and help others to learn.

We were interested in investigating the extent to which practicing nurses felt that the curriculum in nursing school, that is the core accreditation requirements, integrated the 12 specific hazards OSHA has already identified for ED nurses. That is, to what degree are nurses trained to recognize and avoid job-related hazards in nursing school?

NLNAC Rating Analysis Methodology

To better address the degree to which the NLNAC accredited nursing curriculum prepares nurses to identify and control known occupational hazards, four raters were selected and trained to rate the extent to which the NLNAC core accreditation requirements accommodated hazard recognition and control strategies into the curriculum. The raters of the study were selected based on their multifaceted nursing careers of greater than 20 years and a nursing specialization of greater than 10 years in either Occupational Health or Emergency Nursing. Each rater was asked to independently rate, based on a four-point Likert-type scale (0=not covered formally at all; 1=mentioned; 2=covered in some detail but performance-based competence is not demonstrated; 3=covered in detail and performance-based competence is demonstrated), the extent to which each the core NLNAC accreditation criterion addressed the known OSHA ED hazards listed earlier in this article. The raters received a small compensation for their participation in the study.

The results of this rating process are shown in Table 1 (see Table 1 at the end of the paper).

Each cell in the table shows the mean response across raters regarding the degree to which the OSHA ED had been addressed by each core NLNAC accreditation criterion. It is interesting to note that, although



nurses face a multitude of hazardous exposures (recall the OSHA list of identified OSH exposures to nurses in the ED), not a single core competency title above specifically and explicitly requires a nursing program to teach safety or even mentions the many job hazards associated with this career. Further, there seems to be no specific mention of having to demonstrate a competence in hazard recognition or control. Clearly, we expect that general safety principles are discussed in various places across the accredited nursing curriculum. However, given the cell means presented in Table 1, the question remains as to how much emphasis is truly placed on job-related safety issues or performance-based hazard avoidance strategies if safety is not a core accreditation requirement?

Table 2 presents the row means for the rater responses in Table 1. That is, the collective or mean of the mean rater responses for the degree to which each NLNAC accreditation criterion reflected the 12 OSHA ED exposures. (See Table 2 at the end of this paper).

Table 3 presents the column means for rater responses in Table 1. That is, the collective or mean of the mean rater response for the degree to which each OSHA ED exposure is reflected in each of the NLNAC accreditation criteria. (See Table 3 at the end of the paper).

Both Tables 2 and 3 indicate that, although OSHA has identified 12 hazard categories specific to ED nurses, these have not as of yet become integrated to any great extent into course content required for accreditation. In other words, a nursing program can become accredited and not specifically require a demonstrated competence in job-related hazard recognition and avoidance.

Nursing Position Descriptions (PDs) – Analysis of DVA PDs

The second empirical question posed in this paper is: To what degree are emergency department (ED) nurses *expected* to manage their own safety vis-à-vis requirements that are integrated into their position descriptions (PDs). That is, we were interested in finding out to what degree hospitals incorporate known characteristics of OSH hazards into an ED nurse's PD, thus making safety the direct responsibility of the ED nurse as well as the responsibility of the nursing supervisor.

Analysis of ED nursing PDs is difficult for a variety of reasons. For instance, a PD dimension that states a nurse should "*adhere to all safety and health standards, regulations and work practices*" is rather vague and imprecise, and therefore probably difficult for the ED nurse to know whether and the degree to which he or she is in complete compliance while on the job. In addition, employees are unlikely to adequately comprehend the specific standards or regulations applicable to their PD to the depth needed to instinctively comply on their own. Further, management may feel unprepared (able to only recognize sentential incidents), uninterested, or less pressured to measure an individual employee's safety performance.

To investigate the degree to which ED nursing PDs incorporate safety principles, we performed a similar cross tabulation to those performed in Table 1. Required content for nursing PDs according to the Office of Personnel Management (OPM) and the U.S. Department of Veterans Affairs (VA) generic nursing "functional statements" was reviewed. "Functional statements" are used by VA in preference to "position descriptions" where direct patient care is involved, because of their clinical emphasis. However, both PDs and "functional statements" have the same basic objectives to describe performance criteria and would allow for the insertion of characteristics of nursing hazards. The OPM "qualification standards" and "functional categories" and VA "functional statements" did not contain specific characteristics of nursing hazards. OPM provides reference as to how their documents can be expanded to address work



environment and VA “functional statements” provide general safety references, e.g., follows safe work practices and procedures, including “use of required personal protective equipment,” and “recognizes and reports unsafe or unhealthy conditions/practices to supervisor.”

A request for submission of performance measures/job competencies was made nationally to all VA medical facilities. From this request, a convenience sample of 24 PDs from facilities within the Department of Veteran Affairs was gathered from 5 separate VISN regions within the DVA system. The VA facilities submitting ED position descriptions all utilized a fairly similar approach for determining the extent and expertise/knowledge nurses are held accountable for which focus on 9 specific dimensions. It should be noted here that criteria for the PD’s reviewed differed in accordance to the level of the nurses progression through their series. As an example: a beginning nurse in the VA is a Level 1 Step 1. There are 5 Levels of progression for nurses; hence, PD’s for Level 1 nurses would necessarily contain fewer requirements for knowledge and technical expertise than would the PD for level 2 thru level 5 nurses. To this end, the PD’s which were submitted and reviewed for this study consisted of primarily Level 2 and Level 3 requirements. From our content analysis of ED PDs, the following 9 dimensions on which the ED nurse is evaluated were identified:

1. Practice patterns
2. Quality of care
3. Performance
4. Education/career development
5. Collegiality
6. Ethics
7. Collaboration
8. Research
9. Resource utilization

Table 4 presents the 9 ED PD dimensions with their definitions. (See Table 4 at the end of this paper.)

PD Rating Analysis Methodology

Nursing staff working for VA have mandatory performance measures, or competencies, designed specifically for the job area they are working in and which must be met on an ongoing basis. These performance measures, or competencies, include technical skills, critical thinking skills, management and patient care related skills/tasks and job safety related components. All performance measures/competencies received were collated and numbered for future review by raters. PD raters were instructed to focus on all information included in the PD’s submitted, including nursing tasks, skills and knowledge necessary for working in this specialized environment, and specifically to focus on the amount of emphasis placed upon safety.

Raters for this evaluation task were all registered nurses and had advanced nursing degrees, clinical experience in an Urgent Care setting, and worked in VA as a nurse for at least 5 years. As with the NLNAC ratings, each rater (using the same four-point Likert-type rating scale used in Table 1) was asked to independently rate the extent to which each PD addressed the OSHA ED hazard, using the nine dimensions previously listed to structure PD content across PDs. Participation by the raters was voluntary, and those who participated in this study had the option to be compensated if they elected to do so.



Table 5 below presents the extent to which the raters believed the principle elements of ED nursing position descriptions integrate with the 12 primary occupational safety and health risks faced by ED nurses according to OSHA. (See Table 5 at the end of this paper.)

Interestingly, as can be seen in Table 4, the only place safety concerns or requirements were observed was within dimension 9, “resource utilization”. Safety usually took the form of “compliance with universal precautions”, or “uses PPE”, or “uses proper body mechanics and lifting techniques”, or “ensures patient safety” or “provides safe care”, or “adheres to all safety and health standards, regulations and work practices”. Further, Table shows that the raters were very consistent in their observation that none of the OSHA ED hazards were integrated into any of the 9 PD dimensions.

Together, the above analyses of the NLNAC core accreditation criteria and the VA ED position descriptions form an interesting dilemma. Nursing is well known to have several job-related hazards associated with it. However, nursing educational requirements do not require a demonstrated performance capacity in hazard recognition and avoidance. Similarly, nursing position descriptions do not indicate that hazard recognition and avoidance strategies are central to nurses’ performance expectations, or to those of the nurse supervisors who use PDs to rate nursing job performance. The following section is perhaps one method to respond to this.

An Alternative Administrative Control – Job Hazard Analysis

Typically, safety professionals respond to and control OSH exposures with a combination of engineering, administrative and personal protective equipment (PPE) controls. There are abundant engineering and PPE controls available to and used by healthcare professionals such as lift assists, safer needles, needless IVs, a variety of gloves, goggles, and other PPE. However, the degree to which administrative controls are used is less clear. Common administrative controls include job rotation and job enlargement. However, given the complexity and speed of change within the healthcare work setting, the skills specific to nurses and the exposures involved, compiled with the nursing shortage, neither job rotation nor job enlargement seem adequate or practical approaches to the prevention of many inherent hazards faced by nurses daily.

Alternatively, job safety analyses, otherwise known as job hazard analyses (JHAs), or job task analyses, is a process that entails a systematic evaluation of each specific job task and the identification of the inherent occupational safety or health hazards associated with each task in addition to the specification of a control strategy for each hazard. JHAs have been described as “employee/employer participation programs in which job activities are observed; divided into individual steps; discussed; and recorded with the intent to identify, eliminate or control undesirable events” (Friend & Kohn, 2003). Generally, JHAs should not be completed on job tasks that are too broad (e.g., “helping sick people”) or on job tasks that are too narrowly defined (e.g., “retrieving a commode”).

Proper nursing JHAs should involve both the nurse and management. In this sense, the JHA process presents a great opportunity to devise better worded and more accurate job descriptions. In turn, better job descriptions can lead to better training for nurses and more clearly specified accountability for safety while on the job, as well as to promote and properly utilize available engineering and safety control strategies. In addition, better job descriptions would encourage and enforce the need for nursing supervisors to pay closer attention to safe work practices since supervisors are often judged by the degree to which employees under them perform their jobs, thereby increasing management accountability for safety. When JHAs are developed and completed properly, and then used in the manner intended, they will not only enhance



employee training, but also modify the formal job description so that both the employee and supervisor become more directly responsible for safety, and both have a clearer understanding of complete safety performance. In this sense, JHAs can be a significant administrative control which better allows employees to protect themselves from hazards inherent in their jobs, and which better addresses the question of “who’s responsible for safety”.

In the healthcare industry, conventional wisdom suggests that JHAs is likely not a standard operating procedure for nursing position descriptions. Further, the precise degree to which JHAs are completed for ED nurses is unknown. It is not known with certainty exactly why safety, health or environmental practitioners in the healthcare industry do not seem to use JHAs more than they seem to. One might conjecture that there may be neither the expertise nor the disposition (or both) to complete a proper JHA. Without proper and thorough JHAs as described above, it is more difficult to optimally train nurses as to how they might best identify and protect themselves from the many inherent occupational health and safety exposures. In addition, it is more difficult to hold management accountable for properly training nurses to identify and control these hazards.

Recommendations for Further Studies

From the morbidity data presented above and from anecdotal evidence, we know that nurses experience an increasingly hostile, complicated, and stressful work environment. To complicate the forecast for ED nurses, it appears as though nurses may be inadequately prepared in nursing school to recognize, evaluate and control many of the hazards inherent in the ED; nor does it seem that nurses have much of a formal charge to know about or to protect themselves from job-related hazards as the paucity of OSH content in the analysis of typical ED PDs revealed.

Generally speaking, one could correctly argue that modern healthcare facilities have high quality engineering controls and PPE designed to address the modifiable risk factors in the nursing profession. Administrative controls, such as JHAs, job rotation or job enlargement, however, appear to be consistently underutilized. For instance, to date, no known study of the efficacy of using JHAs to better define and design controls among ED nurses and thus reduce occupational exposures has been published and there is ample anecdotal evidence to suggest that competency-based training and education about OSH hazards is lacking in both the formal education of nurses as well as on the job.

Given the lack of coordinated integration of safety principles in accredited nursing programs and the inconsistency of safety requirements and procedures in existing Ed position descriptions, we propose a two phased study: first, a systematic and thorough evaluation of the extent to which JHAs exist and are used in EDs in both the public and private sectors is indicated. Second, a JHA specifically configured, developed and implemented for ED nurses should be developed and then tested using a treatment/control prospective study design.

If performed correctly, such a JHA process is expected improve both the supervisor’s and the nurse’s ability to anticipate, recognize and control occupational hazards, and thereby improve job satisfaction and reduce turnover. Hence, we could generally expect that the frequency and severity of both illness and injury rates would be significantly reduced in the treatment group compared to the control group. Specifically, one might also hypothesize a reduction in percutaneous needlesticks, increased used of PPE, better compliance to universal precautions, improved ergonomics, and adaptation of a self-protective model. As a result, we would expect that nurses that are better trained to protect themselves from job-



related risks would exhibit higher average job satisfaction levels, lower job-related stress, lower turnover and lower absenteeism.

Conclusion

Both academic nursing institutions and hospitals and clinics agree that occupational safety and health (OSH) is an important element of their business goals and responsibilities to both their students, employees and patrons. OSHA has identified at least 12 categories of specific hazards inherent in the job descriptions of ED nurses. Yet, neither academia nor industry appears to optimally prepare nurses to identify and to successfully avoid job-related hazards. Constructing a JHA specific to nurses appears to be an appropriate first step in assisting healthcare organizations to more firmly establish safety expectations within competing organizational priorities, and to more specifically empower nurses to successfully avoid hazards that may hasten an early retirement from the field of nursing. Consequently, nurses would be able to work free from job-related injuries or illnesses, thus helping to abate the pending nursing shortage.

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Table 1: Mean Rater Responses for the NLNAC Core Accreditation Requirements & OSHA ED Exposures

NLNAC Core Requirements	OSHA ED Nurse Exposures											
	Bloodborne Pathogens	Hazardous Chemical	Slips/Falls	Latex Allergy	Equipment Hazards	TB	Workplace Stress	Methicillin Resistant Staph Infections	Workplace Violence	Terrorism	Physical Agents	Other Hazards
1. Care for the community's health	1.5	1.5	1.5	1	1	1.5	1.25	1	1.25	1.25	1	1.25
2. Expand access to effective care	1.75	1.75	1.5	1.5	1.5	2	1.5	1.5	1.75	1.75	1.5	1.5
3. Provide evidence-based, clinically competent contemporary care	1.25	1.5	1.25	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
4. Understand the role and emphasize primary care.	2	2	2	2	1.75	2	1.75	1.75	2	2	2	1.75
5. Development of outcomes-based measures to assure the continuity of care, active management of patients, accountability, cost effectiveness, etc.	1	1.25	1	1	1.25	1	1	1	1	1	1	1
6. Insure care that balances individual, professional, system and social needs.	1	1.25	1	1	1.25	1	1	1	1	1	1	1
7. Involve patients and families in the decision making process.	1.5	1.75	1.5	1.75	1.75	1.75	1.75	1.75	1.5	1.5	1.5	1.5
8. Promote healthy lifestyles.	1.5	1.75	1.75	1.75	1.75	1.75	1.25	1.75	1.5	1.75	1.5	1.5
9. Assess and use communications and technology effectively and appropriately.	1.25	1.5	1.25	1.5	1.75	1.5	1	1.25	1.5	1.75	1.25	1.25
10. Improve the healthcare systems operations and accountability.	1.5	1.75	1.5	1.75	1.75	1.75	1.5	1.75	1.75	1.75	1.5	1.5
11. Understand the role of the physical environment.	1.5	2	1.75	1.5	2	1.75	1.75	1.5	2	2	1.75	1.5
12. Exhibit ethical behaviors in all professional activities.	1.75	1.75	1.75	1.75	1.75	1.75	1.5	1.75	1.75	1.75	1.75	1.75
13. Manage information.	1.75	2	1.75	2	2	1.75	1.75	2	2	2	1.75	1.75
14. Accommodate expanded accountability.	1.5	1.75	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
15. Participate in a racially and culturally diverse society.	1.5	1.75	1.5	1.75	1.5	1.75	1.5	1.5	1.75	1.75	1.5	1.5
16. Continue to learn and help others to learn	1	1.25	1	1.5	1.5	1.25	1	1.25	1.5	1.5	1.25	1.25

Ratings for the NLNAC Core Requirements: 0 = Not covered formally at all, 1 = Mentioned, 2 = Covered in some detail but performance-based competence is not demonstrated, 3 = Covered in detail and performance-based competence is demonstrated.



Table 2: The Mean of the Row Means Hazard for each NLN Core Accreditation Criterion from Table 1

Abbreviate NLN Core Accreditation Criterion	N (Raters)	Minimum	Maximum	Mean	Std. Deviation
1. Care for the community's health	4	0.17	2.33	1.2500	1.07583
2. Expand access to effective care	4	0.18	2.36	1.6364	0.98473
3. Provide evidence-based, clinically competent contemporary care	4	0.00	2.83	1.4583	1.22758
4. Understand the role and emphasize primary care.	4	0.00	2.42	1.3958	1.11674
5. Development of outcomes-based measures to assure the continuity of care, active management of patients, accountability, cost effectiveness, etc.	4	0.00	3.00	1.9167	1.34371
6. Insure care that balances individual, professional, system and social needs.	4	0.00	2.17	1.0417	1.20474
7. Involve patients and families in the decision making process.	4	0.00	2.50	1.6250	1.10868
8. Promote healthy lifestyles.	4	0.00	2.50	1.6250	1.10868
9. Assess and use communications and technology effectively and appropriately.	4	0.08	2.42	1.3958	1.06366
10. Improve the healthcare systems operations and accountability.	4	0.08	2.50	1.6458	1.06800
11. Understand the role of the physical environment.	4	0.50	2.42	1.7500	0.85256
12. Exhibit ethical behaviors in all professional activities.	4	0.00	2.91	1.7273	1.22867
13. Manage information.	4	0.00	3.00	1.8750	1.31498
14. Accommodate expanded accountability.	4	0.00	2.08	1.5208	1.01465
15. Participate in a racially and culturally diverse society.	4	0.00	2.42	1.6042	1.08733
16. Continue to learn and help others to learn	4	0.00	2.08	1.2708	0.97983



Table 3: The Mean of the Column Means for each OSHA ED Hazard from Table 1

OSHA Identified ED Hazard	N (Raters)	Minimum	Maximum	Mean	Std. Dev.
1. BBP	4	0.13	2.06	1.4688	0.9107
2. Hazardous chemicals	4	0.06	2.94	1.6719	1.1972
3. Slips/falls	4	0.06	2.13	1.4844	0.9607
4. Latex allergy	4	0.00	2.69	1.5781	1.1404
5. Equipment hazards	4	0.13	2.63	1.5938	1.0625
6. TB	4	0.13	2.75	1.6406	1.1115
7. Workplace stress	4	0.06	2.00	1.4219	0.9163
8. MRSA Infections	4	0.00	2.38	1.5156	1.0562
9. Workplace violence	4	0.13	2.69	1.6094	1.0830
10. Terrorism	4	0.00	2.81	1.6406	1.1972
11. Physical agents	4	0.06	2.19	1.4688	0.9662
12. Other	4	0.00	2.13	1.4531	0.9861



Table 4: Typical Position Description Dimensions for US DVA ED Nurses

<i>Dimension Title</i>	<i>Dimension Definition</i>
1. Practice Patterns	Uses the nursing process (assessment, diagnosis, outcome identification, planning, implementation, and evaluation).
2. Quality of Care	Describes the quality improvement process, roles and responsibilities, and identifies quality improvement activities on the unit.
3. Performance	Participates in appraisal of own performance. 2) Incorporates feedback regarding performance and interpersonal skills to enhance professional development. Participates in performance evaluations of others. 3) Conducts self-assessment of performance and identifies own learning needs. Assess performance of others.
4. Education/Career Development	1) Seeks opportunities to acquire and develop basic skills. 2) Seeks knowledge and skills appropriate to the practice setting to improve performance. 3) Implements an ongoing education plan to support own professional development.
5. Collegiality	1) Establishes professional relationships with peers. 2) Seeks out colleagues for mutual information exchange. 3) Shares knowledge/skills with colleagues/others. 4) Provides feedback regarding the practice of others to improve patient care. 5) Communicates effectively. 6) Recognizes and utilizes the expertise of others to gain skills and knowledge. 7) Attends and participates in staff meetings and unit training sessions. 8) Assists supportive personnel and/or students in learning. 9) Provides feedback directly to provider or to supervisor regarding practice of co-workers. 10) Participates in peer review
6. Ethics	1) Safeguards patient privacy and confidentiality. 2) Provides care in a non-judgmental, non-discriminatory manner, respecting the values and beliefs of members of all cultures. 3) Assumes responsibility and accountability for individual nursing judgments and actions. 4) Acts as a client advocate. (Nurse I, level 3) Identifies ethical issues in practice and takes appropriate action. 5) Interactions and appearance promote a positive professional image.
7. Collaboration	1) Communicates with clients and other healthcare providers regarding client care. 2) Participates effectively on teams to plan and manage client care. 3) Refers to, consults with, and makes provisions for continuity of care with other healthcare providers.
8. Research	1) Assists in identifying problem areas in nursing practice. 2) Demonstrates awareness of research application to practice. 3) Uses a body of research to validate and/or change own professional practice.
9. Resource	1) Provides care in a safe and cost-effective manner. 2) Plans and organizes care based on client needs and provider competencies to assure safe, efficient, and cost-effective care. 3) Delegates care in a safe, efficient, and cost-effective manner. 4) Assists clients in identifying and securing appropriate services.



Table 5: Mean Rater Responses for ED Position Description Dimensions & OSHA ED Exposures

VA ED Nurse Position Description Dimensions	OSHA ED Nurse Exposures											
	Bloodborne Pathogens	Hazardous Chemical	Slips/Falls	Latex Allergy	Equipment Hazards	TB	Workplace Stress	Methicillin Resistant Staph Infections	Workplace Violence	Terrorism	Physical Agents	Other Hazards
1. Practice patterns	0	0	0	0	0	0	0	0	0	0	0	0
2. Quality of care	0	0	0	0	0	0	0	0	0	0	0	0
3. Performance	0	0	0	0	0	0	0	0	0	0	0	0
4. Ed'n/Career development	0	0	0	0	0	0	0	0	0	0	0	0
5. Collegiality	0	0	0	0	0	0	0	0	0	0	0	0
6. Ethics	0	0	0	0	0	0	0	0	0	0	0	0
7. Collaboration	0	0	0	0	0	0	0	0	0	0	0	0
8. Research	0	0	0	0	0	0	0	0	0	0	0	0
9. Resource	0	0	0	0	0	0	0	0	0	0	0	0

Ratings for Position Description Dimensions Requirements: 0 = Not covered formally at all, 1 = Mentioned, 2 = Covered in some detail but performance-based competence is not demonstrated, 3 = Covered in detail and performance-based competence is demonstrated.



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