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OCCUPATIONAL HEALTH AND SAFETY ISSUES IN CONTEMPORARY NURSING

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Introduction

Nurses face a wide variety of workplace hazards when conducting their daily activities, the most significant being musculoskeletal disorders, occupational violence and sharps injuries. This paper provides a brief description of key workplace hazards including some basic risk factors, combined with appropriate preventive and post-event strategies for each hazard. In addition, delineation is made between nurses' perceptions of risk in the workplace and the actual risks associated with musculoskeletal disorders, occupational violence and sharps injuries.

Perceived Risk versus Actual Risk

Awareness of the distinction between perceived and actual risk in the workplace is important for both employees and occupational health and safety (OHS) professionals alike. Focusing on employees, previous research has demonstrated that skewed risk perceptions may affect judgement, enhancing dread for particular scenarios that are actually low in risk (Smith, 2001). Providing accurate workplace risk information to employees may reduce unnecessary stress about low-risk incidents and may also increase employees' preventative behaviours toward higher-risk activities. For OHS professionals, it is crucial that perceived risk is congruent with actual risk in the workplace, as perceptions will be reflected in the strategies used to address workplace hazards.

Musculoskeletal Disorders

Musculoskeletal disorders (MSD) are widely believed to be one of the most frequently occurring and costly occupational maladies among health care workers. Recent hospital workers compensation statistics support this notion, with back injuries accounting for more than one-third of all days lost (Queensland Dept. Health, 2000). Within the nursing profession, MSD also constitute a significant source of disability and work absences (Larese

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and Fiorito, 1994). The prevalence of nurses' MSD varies depending on body site, with lower back pain prevalence rates higher than 50% reported in some studies (Ando et.al. 2000).

The aetiology of MSD among nurses is usually multi-factorial, relating to work tasks, work postures, work control and work organisation. Several high-risk activities have been identified for nurses in the workplace. The most important scenario relates to nurses frequently working under time pressure, where there is rapid body movement combined with poor posture. Time pressured activities include emergency nursing care, unplanned or unexpected work within hospital wards (which decreases nurse's regulation of work volume), and staff shortages (which often force team members to work harder to complete their assigned tasks).

Static postures amongst operating theatre nurses are sources of further ergonomic stress (Kant et.al. 1992), while work dissatisfaction and anxiety may also heighten the prevalence of MSD (Engels, van der Beek & van der Gulden, 1998). Recent changes in patient demographics, particularly amongst the elderly; has led to an increased number of patients who are dependent on physical handling. Consequently, more and more nurses are required to move patients as part of their daily activities. In addition, nurses are usually unable to spread out manual handling tasks as patients cannot be kept in uncomfortable or dangerous positions for any length of time (Ando et.al. 2000).

The management of MSD within nursing is a contentious issue. Some studies have suggested that ergonomic interventions alone will not totally alleviate the problem (Burton et.al. 1997). Furthermore, reducing time pressured activities may be difficult as this strategy relies predominantly on increasing staffing levels (an industrial relations issue which will likely be beyond the control of OHS professionals). Encouraging self-management among nurses has been postulated as an effective preventive therapy (Harber et.al. 1985). Nurses must also remain vigilant to avoid the harmful postures and rapid movements that may eventually lead to MSD. In general, an understanding of the aforementioned risk factors and how to avoid them will certainly be useful in the ongoing management of all ergonomic issues within nursing.

Occupational Violence

Violence within the workplace is becoming an increasingly serious issue for health care staff, with prevalence rates reported to be as high as 59% (Liss and McCaskell, 1994). Occupational violence has widespread negative repercussions for both the staff, colleagues, family and friends of victims exposed to occupational violence. For example, some studies have revealed that at least 10% of nurses exposed to occupational violence require some form of post-event treatment (Liss and McCaskell, 1994). Although most incidents involve male, psychiatric patients directing violence against nurses; an increasingly important patient group are the demented, institutionalised elderly. Other patient risk factors include frustration, personal intrusion, the demanding of activity and having pain / discomfort inflicted during procedures (Whittington, 1997). One important employee risk factor is the absence or under-training of staff in appropriate remedial techniques for occupational violence, as violent situations may be enhanced if an employee fails to appreciate the patient's fears and primary motivations (Rosenthal et.al. 1992).

The finding that young, female nurses are the most at risk of violent assault compared to the average rate across all occupations highlights the need to address OHS strategies towards this employee demographic. Similarly, underreporting of violent incidents by nurses, particularly if a weapon is *not* involved, suggests the true incidence of violent injury remains largely obscured (Rosenthal et.al. 1992).

While developing strategies to reduce the incidence and impact of occupational violence (especially for young nurses), it is important to consider the discrepancy that exists between nurses' perceptions of violence and actual violence in the workplace. For example, occupational homicide is widely feared by nurses, even though serious injury represents the minority of workplace assaults (Whittington, 1997). This finding indicates a need to educate nurses about the nature of occupational violence most likely to occur (eg verbal abuse, threats, intimidation) and also, the need to target strategies for the reduction of these specific occupational violence categories. Considering the patient, employee and demographic risk factors of occupational violence listed above, appropriate responses to occupational violence within the nursing profession should consist of three key elements: violence prevention, violence diffusion and post-trauma support for assaulted staff (Paterson, Leadbetter and Bowie, 1999).

Violence prevention should be directed towards educating and training nurses to better appreciate the primary fears and motivations which lead to violent patient behaviour. To be effective, training needs analysis and health policy development must be proactive in nature. Given that the incidence of violence cannot be wholly eliminated, violence diffusion is also a necessary strategy for OHS professionals to consider when dealing with occupational violence. In addition, given the effect of violence on victims and on those around them, appropriate post-trauma support for assaulted staff must be developed. Support for assaulted staff needs to be viewed as an

ongoing rehabilitative therapy, while opportunities for nurses' group support, peer support, catharsis and follow up should be provided. Finally, in developing strategies to address occupational violence, OHS professionals should consider a variety of approaches including training, risk management, and crisis response techniques.

Sharps Injuries

Sharps injuries represent a significant risk for the effective transfer of blood borne infectious diseases from patients to nursing staff. Some studies indicate that two-thirds of all reported sharps injuries occur among nursing staff (Hanrahan & Reutter, 1997). Wounds may be caused by any object capable of penetrating the skin, including disposable needles, sutures, infusions sets, catheters, scalpels and broken glass objects (Smith et.al. 1992). An increasing community prevalence of serious infectious diseases such as Hepatitis B virus (HBV) and Human Immunodeficiency Virus (HIV) has heightened the danger of sharps injuries among health care workers, particularly within emergency departments (Tandberg, Stewart and Doezeema, 1991). Similarly, time constraints and the rise in minor surgical procedures, has further enhanced risks for these personnel.

As many of the first sharps injuries to be reported involved recapping and disposing of used needles, initial preventative strategies discouraged recapping while simultaneously providing puncture-proof disposal containers (Hanrahan & Reutter, 1997). Current prophylactic techniques include: the elimination of high risk activities, distancing hands from potentially sharp procedures, improving the protection of vulnerable areas and more effectively shielding sharp instruments (Wright et.al. 1991). A risk management approach must be adopted to determine which prophylaxis is the most appropriate for the procedure being conducted. This protocol must also be tailored on an institution by institution basis.

Educating and training staff about sharps injury risks is also essential, as there are often large discrepancies between perceived and actual risk. Although HIV and Hepatitis C Virus (HCV) are widely dreaded for example, exposure to HBV and subsequent seroconversion from a sharps injury is more likely in most health care situations (Hanrahan & Reutter, 1997). As such, routine vaccination of all health care workers with the 3-course HBV antigen should become an integral facet of any sharps injury preventive strategy, and one that is known to be a safe and effective prophylaxis for those at risk of sharp injuries.

Perceptions versus Risk

The fear of occupational hazards may not always equate to actual risk. Previous research has demonstrated how skewed risk perceptions may affect judgement, enhancing dread for particular scenarios that are actually low in risk (Smith et.al. 1992). Although all issues covered during this paper cause concern amongst nursing staff, by far the most tangible risk is MSD. Recent hospital workers compensation statistics support this notion, with back injuries accounting for more than one-third of all days lost (Queensland Dept. Health, 2000). Occupational homicide on the other hand is widely feared by nurses, even though serious injury represents the minority of workplace assault (Whittington, 1997). Similarly, contracting HIV infection from sharps injuries during nursing practice is less likely than either HBV or HCV (Hanrahan & Reutter, 1997).

Conclusion

Contemporary nurses face a wide variety of workplace hazards when conducting daily activities, the most significant being musculoskeletal disorders, occupational violence and sharps injuries. In the present paper, the most commonly occurring risks for nurses have been outlined, including basic patient and employee risk factors, potential intervention strategies for OHS professionals to consider. This paper does not include an in depth analysis of these workplace issues, but rather, is intended as a guide for OHS personnel associated with or interested in nurses' workplace health.

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