



A STUDY OF RISK FACTORS FOR VIOLENCE AMONG NURSES

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TECHNICAL REPORT

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LIST OF ABBREVIATIONS

CI	Confidence Interval
LPN	Licensed Practical Nurse
NPV	Non-Physical Violence (Consists of threats, sexual harassment, and/or verbal abuse)
NIOSH	National Institute for Occupational Safety and Health
OR	Odds Ratio
OSHA	Occupational Safety and Health Administration
PA	Physical Assault
RN	Registered Nurse

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ABSTRACT

Importance

Within the realm of violence, work-related violence has recently been recognized as a major problem. During 2000 alone, 677 work-related homicides occurred, making homicide the third leading cause of occupational fatality, overall, and the second leading cause of occupational fatality for women (U.S. Department of Labor, Bureau of Labor Statistics, 2001). While there is an emerging literature pertinent to work-related homicides, there is a serious deficiency in the knowledge of non-fatal work-related violence and the associated risk factors. In a recent analysis of data extrapolated from the National Crime Victimization Survey for 1992-1996, based on a nationally representative sample of approximately 46,000 households, Warchol (1998) estimated that nearly two million acts of nonfatal work-related violence occurred annually. The true prevalence of occupational violence is unknown.

Objectives

This study was designed to identify the magnitude and consequences of the problem of work-related violence within a major occupational population and to identify specific risk factors, using a case-control design. In particular, this enabled determination of the relation between work-related violence in a cohort of registered and licensed practical nurses and: 1) personal exposures; 2) environmental situations/exposures in the work environment; and 3) characteristics of others in the environment (other workers, patients, visitors).

Methods

The target population included all licensed registered (RN) and practical (LPN) nurses in Minnesota (79,128). This population involves one of the few professions at risk for violence for which a database of contact and some demographic information is available for selection of subjects.

In this study, work-related violence was defined as the intentional use of physical force or emotional abuse, against an employee, that resulted in physical or emotional injury and consequences. This included physical assault (PA) and non-physical violence (NPV) (threat, sexual harassment, and verbal abuse). Work-related events included any activities associated with the nurse's job or events that occurred in his/her work environment; work-related travel was included.

Pilot testing was conducted prior to each study phase that included a rigorous follow-up protocol. Prior to Phase I, 220 nurses were selected to pilot test the survey instrument and methods; one-half were sent surveys requesting a telephone number to be used, potentially, for clarification of missing information. Nurses were also assigned to one of two types of follow-up for non-response; approximately one-half were contacted by both mail and telephone to encourage response, while the remaining were contacted only by mail. Prior to Phase 2, pilot testing again was conducted to test the survey instruments.

Initially, a specially-designed, comprehensive survey instrument was sent to a random selection of 6,300 RNs and LPNs who were licensed in the state of Minnesota. The purpose was to identify individuals who worked as nurses in Minnesota during a 12-month period, to identify nurses who did and did not experience work-related violence during that same study period, and to collect comprehensive data on their work-related PA and NPV experience occurring during the past year.

Subsequently, a nested case-control design was used to examine the relation between potential risk factors and work-related PA. For each case (n=475), three controls (n=1425) were sampled from the population at risk during the study period. A questionnaire was then sent to the cases and selected controls to obtain data on work-related exposures, including the characteristics of nurses and significant others in the workplace and surrounding environmental factors. Cases were questioned about their exposures one month prior to and during the incident. Controls were questioned about their exposures on a randomly selected month from the study period to provide the person-time exposure information; key items were validated.

An overall conceptual model was developed for the occurrence of work-related violence events, based on previous knowledge and the epidemiological model of human damage involving the

dynamic interactions of a host, agent(s) and vehicles (or vectors) within the environment; this served as the basis for a more elaborate causal model that guided instrument development and study analyses. The ultimate goal of the data analyses was to estimate the impact of the above factors on work-related violence, controlling for important confounding factors. Analyses began with basic descriptive statistics on the sample and the consequences of reported events, and crude estimates of event rates. Selection of confounders for multiple logistic regression was based on a directed acyclic graph, derived from the causal model, following the methods described by Greenland et al. (1999). Confidence intervals for event rate estimates and regression coefficients were calculated by the bootstrap method (Efron and Tibshirani, 1993). Potential response bias was controlled by inversely weighting observed responses by probabilities of non-response estimated as a function of characteristics available from the licensing database (age, gender, license type, and home address: metropolitan versus non-metropolitan area) (Horvitz and Thompson, 1952). The probability of being eligible among the respondents across these same characteristics was used to estimate the unknown eligibility among non-respondents (Mongin, 2001).

Results

Based on pilot test results, it appeared that there were no differences in the response rates between the two methods of follow-up (mail only, and combination of mail and telephone). However, there were additional efforts and costs expended into completing the telephone follow-up process. These included extra charges for long distance calls, and a high level of personnel time; thus, the use of mail only appears to be more efficacious for this population.

For the comprehensive study, Phase 1, 78% responded; proportions of RNs and LPNs, were 80% and 74%, respectively. The PA adjusted rate was 13.2 per 100 persons per year. For NPV the adjusted rate was 38.8 per 100 persons per year. Patients/clients were reported most frequently as the source of PA (96%) and NPV (67%). For both PA and NPV, working in a nursing home/long-term care/rehabilitation facility increased risk the greatest in this study, based on multivariate modelling. The consequences of violence reported in this study deserve particular attention; those for NPV appeared even greater than those for PA.

For the case-control study, Phase 2, 76% responded. Full length surveys were returned for 324 cases and 946 controls. Weighted analyses of the environmental exposures identified important increased rates for: working primarily in a nursing home/long-term care or rehabilitation facility; working primarily in emergency and psychiatric/behavioral departments; and working in environments with a typical lighting level of less than "bright as daylight." Decreased rates were identified for personal protective devices carried by nurses, such as cell phones/personal portable alarms; if nurses provided their own cell phones or personal portable alarms (compared with someone else providing the device), this effect was even greater.

Conclusions

This study is among the first such comprehensive efforts to identify the magnitude of the violence problem and specific risk factors in a major occupational population. From this effort, specific prevention and control strategies can be developed more realistically. In particular, attention to facilities, departments, patient populations, and activities that place these people at risk is of great importance and need to be addressed by employers and relevant safety committees. This violence affects not only the victim but, also, the employer, others in the work environment and significant others outside the work setting. Most importantly, this study serves as a basis for further in-depth research of specific risk factors, identified in the current effort, to examine additional opportunities for intervention efforts.

SIGNIFICANT FINDINGS

Specific Aim I: Identify the magnitude of the problem of work-related violence within a major occupational population.

Rates

Based on data from the *comprehensive study*, the adjusted PA rate for nurses in Minnesota, based on incurring at least one assault, was 13.2 per 100 persons per year. Assault rates were increased for LPNs compared with RNs (16.4 and 12.0, respectively) and males compared with females (19.4 and 12.9, respectively).

For NPV (threats, sexual harassment, and/or verbal abuse), the adjusted rate was 38.8 per 100 persons per year; these rates were 38.5 and 39.7, respectively, for LPNs and RNs. Adjusted rates for males and females, respectively, were 45.0 and 38.5.

Consequences

Reporting for PA is based on specific (one-time) events or ongoing (persistent) events. Anatomically, specific PA events primarily involved: arm/elbow/wrist (47%); or hand/finger/thumb (13%); also, involved, were face (13%), leg (8%), head/skull/brain (5%), and external chest (6%). For ongoing events the proportions differed, respectively: 70%; 33%; 26%; 20%; 7%; and 2%. The resulting types of physical injuries (either specific or ongoing events) reported most frequently were bruises/contusions, temporary discolorations/slap marks, cuts/lacerations/scratches, or abrasions.

Compared with those who reported PA, those who identified NPV reported greater consequences in terms of resulting symptoms and feelings. The most commonly reported consequences of both PA and NPV were frustration, anger, fear/anxiety/stress, and irritability, with much greater proportions reported for NPV for each of the consequences. Although 8% of nurses who were physically assaulted reported persistent problems, as a result of the event, nearly 13% of nurses who experienced NPV reported persistent problems.

Similarly, consequences relevant to work situation changes appeared to be greater for those reporting NPV than PA. While less than 10% of nurses reported changes in their work status as a result of PA, nearly 22% among those who reported NPV reported changes, including 6% who quit as a result.

Specific Aim II: Examine the relation between work-related violence injuries and personal exposures.

From analyses of the *comprehensive study*, males (compared with females) appeared to be at increased risk of PA (OR 1.820; 95% CI 1.211, 2.735); the effect was not as important for NPV (OR 1.212; 95% CI 0.872, 1.684). Also, as the age of the nurse increased (per year), the odds of PA (OR 0.982; 95% CI 0.972, 0.991) and NPV (OR 0.987; 95% CI 0.980, 0.993) decreased. Analyzed by license type, LPNs, compared with RNs, appeared to be at increased risk for PA; this effect was not seen for NPV.

From analyses in the *case-control study*, several personal exposures were investigated. At the univariate analysis level, years worked as a licensed nurse indicated a significant decrease in the risk for PA with each additional year worked (OR 0.978; 95% CI 0.966, 0.990, change per year); this appeared less important with the multivariate modeling (OR 0.983; 95% CI 0.966, 1.001). Years worked in their primary department revealed a decreased risk for each year worked at the univariate analysis level (OR 0.982; 95% CI 0.965, 0.998, change per year) but, not at the multivariate level (OR 0.989; 95% CI 0.971, 1.007). An increased risk, for each additional hour worked, was identified for patient contact hours at the univariate level (OR 1.071; 95% CI 1.025, 1.119, change per hour); but, this was less important, although suggestive, at the multivariate level (OR 1.047; 95% CI 0.987, 1.105).

Specific Aim III: Examine the relation between work-related violence injuries and environmental situations/exposures in the workplace.

This aim involved the investigation of numerous environmental exposures including the primary type of facility, department, patient population, and professional activity, among others, in the past year. Multivariate analyses were conducted on both the comprehensive and case-control portions of the study to accomplish this.

From *results of analyses for the comprehensive study*, increased risks were shown for both PA and NPV for working primarily in nursing homes/long term care/rehabilitation facilities (PA: OR 2.589, 95% CI 2.068, 3.228; NPV: OR 1.459, 95% CI 1.213, 1.760). Risks were also increased for working primarily in psychiatric/behavioral (PA: OR 2.063, 95% CI 1.474, 2.820; NPV: OR 2.771, 95% CI 2.065, 3.613), emergency (PA: OR 2.475, 95% CI 1.393, 4.181; NPV: OR 3.130, 95% CI 2.056, 4.824), and intensive care (PA: OR 1.499, 95% CI 0.995, 2.181; NPV: OR 1.341, 95% CI 1.007, 1.809) departments, with the latter being suggestive for PA.

Working with primarily geriatric populations increased the risks of both types of violence, when compared with an adult population, although it was only suggestive for NPV (PA: OR 2.342, 95% CI 1.619, 3.289; NPV: 1.204, 95% CI 0.937, 1.545). In addition, increased risks were shown for provision of direct patient care and supervision of patient care for PA, only (OR 1.849, 95% CI 1.345, 2.538 and OR 1.750, 95% CI 1.090, 2.754, respectively).

From *results of analyses for the case-control study*, that focused only on the outcome of PA, increased risks were shown for: working primarily in nursing homes/long term care/rehabilitation facilities (OR 2.637, 95% CI 1.914, 3.597; working primarily in emergency and psychiatric/behavioral departments (OR 4.224, 95% CI 1.327, 12.792 and OR 2.030, 95% CI 1.054, 3.729, respectively). A reduced risk was seen for working primarily with neonatal, pediatric, and adolescent populations (OR 0.438, 95% CI 0.222, 0.987).

Among numerous environmental design characteristics, an increased risk was demonstrated for working environments that were illuminated "less than bright as daylight," compared with "bright as daylight" (OR 2.153, 95% CI 1.578, 2.832). The use and provision of portable alarms/protective devices were also studied. Carrying a cellular telephone/personal portable alarm provided by the nurse (OR 0.300, 95% CI 0.153, 0.709), or provided by other sources (OR 0.694, 95% CI 0.493, 0.997), resulted in decreased risks; however, if telephones were provided solely by the employer, there was no effect.

Specific Aim IV: Examine the relation between work-related violence injuries and characteristics of others in the environment.

Based on data from the *comprehensive study*, the perpetrators of PA were most often patient/clients ($\geq 90\%$). For NPV, the perpetrators were primarily patient/clients (67%) but, also, involved doctors (13%), other employees (11%), patients' visitors (11%), or supervisors (10%).

In cases of PA, nurses perceived their assailant to be impaired from disease/illness ($\geq 80\%$), and/or under the influence of prescribed medication or drugs/alcohol ($\geq 27\%$) in a large proportion of the cases; these categories were not mutually exclusive. Among those nurses reporting NPV, 41% of the perpetrators were perceived to be impaired from disease/illness and/or prescribed medications or drugs/alcohol (28%).

Analyses of *case-control study* data identified decreased risks for each increase in the number of nurses working on the shift at both the univariate analysis level (OR 0.991; 95% CI 0.975, 1.007, change per each nurse) and the multivariate analysis level (OR 0.998; 95% CI 0.973, 1.015); however, these were suggestive, only. Similar effects were seen for the increase (per person) in all personnel on the shift at both levels of analyses (OR 0.989; 95% CI 0.978, 1.000) (OR 0.997; 95% CI 0.982, 1.012).

USEFULNESS OF FINDINGS

This study is the first such comprehensive effort to identify not only the magnitude of the violence problem in a major occupational population but, also, to identify specific risk factors for work-related PA. This was accomplished through a highly rigorous scientific approach that included validation efforts to facilitate analyses of potential bias. Sophisticated analytical techniques were applied to optimize the risk estimates. As a result, the findings from this effort provide an important contribution to the knowledge of work-related violence and, particularly, provide information on specific risk factors that serve as a basis for the development of appropriate prevention and control efforts. In addition, results of this effort provide unique opportunities for further in-depth investigation of key risk factors and the most appropriate methods for controlling these factors in various health care settings where personnel are at high risk for violence.

SCIENTIFIC REPORT

BACKGROUND

Within the realm of violence, work-related violence has recently been recognized as a major problem. The National Institute for Occupational Safety and Health (1996) defined work-related violence as: violent acts, including PAs and threats of assault, directed toward persons at work or on duty (NIOSH, 1996). During 2000 alone, 677 work-related homicides occurred, making homicide the third leading cause of occupational fatality, overall, and the second leading cause of occupational fatality for women (U.S. Department of Labor, Bureau of Labor Statistics, 2001). While there is an emerging literature pertinent to work-related homicides, there is a serious deficiency in the knowledge of non-fatal work-related violence and the associated risk factors. In a recent analysis of data extrapolated from the National Crime Victimization Survey for 1992-1996, based on a nationally representative sample of approximately 46,000 households, Warchol (1998) estimated that nearly two million acts of nonfatal work-related violence occurred annually. The true prevalence of work-related violence is unknown.

Numerous biological (Niehoff, 1999), psychological (Dollard et al., 1939), and socio-cultural (Bandura, 1973) theories have been generated relevant to the causes of violence, in general. Violence is a complex behavior and, like all behaviors, it occurs in the context of culture; it encompasses a wide range of human behavior that has interacting biologic, psychological, and social components (Blue and Griffith, 1995). Understanding the situational contexts and the settings in which persons are at risk for interpersonal interactions that result in violent consequences is critical to our knowledge of risk factors that will enable development of relevant intervention efforts.

The most rigorous studies of work-related violence, to date, have used data collected as a matter of public policy, e.g., workers' compensation claims or death certificates. The limitation of these studies is that they only detect the most serious violent incidents--those resulting in extended loss of work time or death. For example, Peek-Asa et al., (1997) analyzed California Employer's Report of Occupational Illness and Injury from October 1, 1994 through January 31, 1995. The estimated annual rate of work-related assault injuries for California, based on only four months of data, was 82.5 per 100,000 workers -- over 50 times the total occupational homicide rate in California (1.3 per 100,000). In another study by some of the researchers (Peek-Asa et al., 1998), California police reports and employer reports of non-fatal work-related assaults were reviewed; from these, an estimated annual assault rate of 184.6 per 100,000 workers was identified. Bensley et al., (1997) studied employees at a state psychiatric hospital, during 1992, using workers' compensation claims, hospital incident reports, and results of a staff survey. Survey data indicated a rate of 415 assault injuries per 100 employees per year, while incident reports showed a rate of 35 per 100, and workers' compensation claims revealed 13.8 per 100. Focusing only on workers' compensation claims for fatal and non-fatal cases would have resulted in significant underestimations of the extent of work-related violence.

Underreporting presents another difficulty in estimating the magnitude of this problem. According to the Bureau of Justice Statistics (Warchol, 1998), only 44% of work-related violent crimes were reported to the police between 1992-1996. In a study by Riopelle et al., (2000), of the 30 Los Angeles County employees who reported being assaulted in the past year, less than 24% filed an incident report or police report. Lion et al., (1981) also reported that violence against hospital personnel is underreported (less than one in five assaults). From the Northwestern National Life Insurance study (Lawless, 1993), it was estimated that 58% of harassment situations, 43% of threats, and 24% of attacks were unreported (n=600, response rate 29-52%, depending on eligibility criteria; Cole et al., 1997). Hypothesized reasons for underreporting included: the victim may have felt the violence resulted from a failure to deal effectively with the perpetrator (Yassi, 1994; Lion et al., 1981); the victim preferred not to take the time to complete the

necessary report (Lion et al., 1981), or the victim may feel that the violence is "a part of the job" (Riopelle et al., 2000; Gates et al., 1999; Yassi, 1994; Lion et al., 1981). Thus, focusing only on formally reported events would have resulted in a serious underestimation of the magnitude of this problem.

Work-Related Violence Among Health Care Workers

Workers in health care, community services, and retail settings are at increased risk of non-fatal work-related assault (NIOSH, 1996). It was estimated that, during 1998, approximately 74% of the 17,700 nonfatal occupational assaults involving days away from work were in the service-producing private industry (transportation and public utilities, 800; wholesale trade, 300; retail trade, 2,300; finance, insurance, and real estate, 400; and services, 13,100) (U.S. Department of Labor, Bureau of Labor Statistics, 2001). Based on a four-month study period, Peek-Asa et al., (1997) estimated a nonfatal annual assault rate of 465.1 per 100,000 hospital workers, compared with all California workers, 82.5 per 100,000 workers in 1994 (Risk Ratio=5.64, 95% CI=5.59-5.68).

Violence against nurses, specifically, has been identified as a major occupational problem (Carter, 1999/2000; Arnetz et al., 1998; Baxter et al., 1992; Mahoney, 1991); however, the prevalence of violence against nurses is unknown. From an effort using 1992 Minnesota Workers' Compensation files, it was reported that nurses, alone, accounted for over 7% of the total compensated workers due to work-related assault that resulted in at least three days of lost time (LaMar et al., 1998).

Primarily descriptive studies have been used to identify varying violence prevalence levels or rates, focused on particular types of facilities, units, or sub-groups of nurses; however, it is difficult to compare the data from these studies when definitions of violence, study populations, and study periods differ. From a 1994 national survey by the Emergency Nurses Association, it was reported that 87% of the staff were exposed to PAs *without* weapons one to five times *per year*, and that PA *with* weapons occurred to 24% of staff one to five times *per year* (n=1380, response, 30%, American Nurse, 1995). Arnetz and Arnetz (2000), in a study of Swedish health care workers, reported that 83% of the workers experienced work-related violence during their careers and 63% experienced violence within the previous year, alone (n=1203, 77% response). A study by Baxter et al., (1992) revealed that 82% of 263 nurses from a group of suburban psychiatric hospitals (61% participation) reported at least one assault *during their nursing career*, with 49% of the nurses reporting at least one of these assaults as severe. Of the nurses who reported being assaulted, 14% reported being assaulted over 20 times. Learning disability staff were studied by Kiely and Pankhurst (1998); who reported that 81% of the staff had experienced violence in the past 12 months (n=295; 37% response). Another study found that 73% of 184 neuro/psychiatric nurses (71% response) reported being physically assaulted by patients in the past, with 7% being assaulted 20 or more times (Poster and Ryan, 1989). In a study by Mayer et al., (1999), 72% of emergency personnel in central Florida reported being assaulted during their career, and 42% reported being assaulted during the past year (n=226, 37% response). From another study, 67% of 1209 Pennsylvania emergency department nurses (60% participation) reported at least one assault during their nursing career, and 36% reported being assaulted at least once during the past year (Mahoney, 1991). Hurrell et al., (1996) in a study of 4,849 state workers, represented by 150 different occupations, reported 65% of male mental health workers and 48% of female mental health workers were assaulted in the past year (response, 69%). Fernandes et al., (1999) reported that of the 106 Vancouver emergency department staff completing a retrospective written survey, 57% reported being physically assaulted in 1996 (65% response). Another study found 32% of 201 nurses from two psychiatric hospitals (100% participation) reported at least one assault incident in a *fourteen-week period* (Whittington and Wykes, 1994). In a study by Williams (1996), 25% of 345 Illinois nurses (30% response) reported being physically assaulted while on the job.

In addition to frequencies of assault, some studies report assault rates; however, these rates also vary by study. In a study of work-related violence between 1992-1996, Warchol (1998) estimated the rate of nonfatal work-related violence against nurses was 24.8 per 1,000 workers, compared to the average rate for all occupations of 14.8 per 1,000. In a study of employees at a

Washington state psychiatric hospital, Bensley et al., (1997) reported an assault rate of 437 assaults per 100 employees, per year, that resulted in at least a mild injury. From analyses of 1992 Minnesota Workers' Compensation claims, Findorff et al., (2000) reported assault injury rates for registered nurses and licensed practical nurses of 27 and 88 per 100,000 respectively (compared with the assault injury rate of 16/100,000 for all occupations). In another study, Sullivan and Yuan (1995) conducted an analysis of occupational assaults detected through Workers' Compensation claims, experienced by Los Angeles County minority health care workers between 1986-1990. They reported that the assault rate for professional nurses working in inpatient settings was 23.2/1,000,000 employment days. In a 1986 study, conducted in a 973 bed maximum security forensic hospital in California, an annual rate of 16 work-related assault injuries per 100 nursing staff was identified, according to OSHA's definition of occupational injury (Carmel and Hunter, 1989).

Risk Factors

Numerous potential risk factors for violence have been suggested, including characteristics of the perpetrator, victim, and the environment. Examples include: the easy availability of weapons (Simonowitz, 1996); the frequency of violence portrayed in the media (Simonowitz, 1996); the widespread abuse of drugs and alcohol (Simonowitz, 1996; Blue and Griffith, 1995); the decrease in medical and social services for the mentally ill and those requiring assistance (Simonowitz, 1996); the use of violence by many to solve problems (Simonowitz, 1996); economic inequality (Messner, 1988; Klein et al., 1997); inadequate access to goods and opportunities (Messner, 1988); and inadequate staffing patterns (Simonowitz, 1996).

Limitations of Previous Research

There are a number of limitations from previous studies that have been conducted. First, only a few have enabled the calculation of rates of violence and none are apparent that account for potential biases of non-selection and non-response. Second, the definition of assault is not always specified or graded and there is no consistency among definitions provided. Third, the majority of studies have been primarily descriptive and not comprehensive population-based efforts; many have included only case-series data. While these studies provide some limited information on demographics of assaulted nurses, including perceptions and attitudes about the assaults as well as circumstances surrounding the events, there have been only limited efforts to investigate the potential risk factors within a population. While descriptive studies enable identification of potential risk factors, it is not possible to determine specific risk factors without a comparison group; exposures must be measured for both cases and controls. With the exception of the study by Lee et al. (1999), which involved a case-control study, the literature addressing the incidence of nonfatal assaults and potential risk or protective factors has been primarily limited to cross-sectional study designs. These deficiencies have limited growth in our understanding of this major occupational hazard and the ability to develop effective prevention and control strategies.

SPECIFIC AIMS

The primary aims of this effort were to:

- 1) Identify the magnitude of the problem of work-related violence within a major occupational population; and**
- 2) Examine the relation between work-related violence injuries and:**
 - a. *Personal exposures***, including number of hours worked per day/week, numbers of hours of patient contact, workload, shifts worked, assault management training (e.g., type of training and hours of training), and demographics (e.g., age, gender, education, race/ethnicity, marital status, socioeconomic status, physical size/body mass, job title, and work experience).

- b. *Environmental situations/exposures* in the workplace such as: types of hospitals and types of departments/specialty wards in which the nurses work, numbers and types of professionals working in the same environment, staffing patterns, protocols for patient/visitor management, availability of security systems, types of security systems in use (e.g., access control, security guards, video monitor, use of metal detectors, emergency alarms), established procedures for assault intervention; physical environment including lighting, use of specific barriers, room configurations including number of exits; general social environment, including level of support by administration and colleagues, and level of tolerance for harassment and abuse.
- c. *Characteristics of others in the environment* (including other workers, patients and visitors) such as: types of patients, including mental status/impairment, average length of stay of patients, and demographics of coworkers and patients (e.g., numbers, age, gender, race/ethnicity).

METHODS

Overview

This epidemiological study examines the population of all licensed registered and practical nurses who worked in the state of Minnesota as of October 1, 1998. This population was selected because it is one of the few occupations known to be at risk for which there is an available comprehensive database (with contact addresses) for selection of subjects. A pilot study was first conducted to test the specially developed instruments and specific methods incorporated. For the comprehensive study, a survey instrument was initially sent to a random selection of nurses to identify persons who worked in the state of Minnesota during the study period and who did and did not experience work-related events meeting the definition of violence. Subsequently, a nested case-control design was used to examine the relation between potential risk factors and work-related PA. Controls were randomly sampled at a ratio of 3:1 per case. A specially designed questionnaire was then sent to the cases and selected controls to obtain data on work-related exposures including the characteristics of nurses and significant others in the work environment. Cases were questioned about their exposures prior to and during the incident. Controls were questioned about their exposures on a randomly selected time from the study period to provide the person-time exposure information. This control selection procedure yielded a random sample of the person-time for the cohort and, therefore, calculated odds ratios estimate rate ratios for the effect of exposures on the rate of work-related violence.

An overall conceptual model was developed for the occurrence of work-related violence events, based on previous knowledge and the epidemiological model of human damage involving the dynamic interactions of a host, agent(s) and vehicles (or vectors) within the environment; this served as the basis for a more elaborate causal model that guided instrument development and study analyses. The ultimate goal of the data analyses was to estimate the impact of the above factors on work-related violence, controlling for important confounding factors. Analyses began with basic descriptive statistics on the sample and the consequences of reported events, and crude estimates of event rates. Selection of confounders for multiple logistic regression was based on a directed acyclic graph, following the methods described by Greenland et al. (1999). Confidence intervals for event rate estimates and regression coefficients were calculated by the bootstrap method (Efron and Tibshirani, 1993). Potential bias was controlled by inversely weighting observed responses by probabilities of non-response estimated as a function of characteristics available from the licensing database (Horvitz and Thompson, 1952); these probabilities were age, gender, license type, and home address (metropolitan versus non-metropolitan area). The probability of being eligible among the respondents across these same characteristics was used to estimate the unknown eligibility among non-respondents (Mongin, 2001). Key items (including self-reported injury history and exposure information validity) were validated through sub-studies.

Definitions

In this study, work-related violence was defined as the intentional use of physical force or emotional abuse, against an employee, that results in physical or emotional injury and consequences; thus, this includes PA and NPV. Work-related events include any activities associated with the nurse's job or events that occur in his/her work environment; work-related travel is included. PA occurs when one is hit, slapped, kicked, pushed, choked, grabbed, sexually assaulted, or otherwise subjected to physical contact intended to injure or harm. NPV includes threats, sexual harassment and verbal abuse. Threat is defined as when someone used words, gestures, or actions with the intent of intimidating, frightening, or harming (physically or otherwise). Sexual harassment occurs when one experiences any type of unwelcome sexual behavior (words or actions) that create a hostile work environment. Verbal abuse occurs when another person yells or swears, calls names, or uses other words intended to control or hurt.

Study Population

Study cohort

This study examined the population of licensed registered (n=57,388) and practical (n=21,740) nurses who were licensed in the state of Minnesota as of October 1, 1998 (n=79,128). This population was selected because it is one of the few professions at risk for violence for which there is an available comprehensive database (with contact addresses) for selection of subjects. Since licensing is required for both licensed registered and practical nurses who practice in Minnesota, the study population was expected to be a dynamic cohort and stable through time. A random sample of 6,300 nurses was selected from this combined population.

Cases

Cases were identified through responses to the initial comprehensive survey instrument; they were defined as those who reported being physically assaulted and also worked as nurses in Minnesota at some time during the 12 months previous to the date they filled out the survey (n=475). Individuals who reported more than one event were only included as a case once, based on the most remote event.

Controls

Controls (3:1; n = 1425) were randomly selected from all nurses who worked during the study period. Each selected control was randomly assigned a month during the study period in which the nurse indicated having worked (but prior to any physical assaults to that nurse) to provide exposure information representative of the total person-time exposure.

Data Collection

Contact Procedures

Initially, a survey instrument was sent to the 6,300 nurses to identify persons who worked as nurses in Minnesota in the past 12 months and, also, to identify persons who did and did not experience work-related events meeting the definition of violence (Phase I, Comprehensive Study). Subjects were mailed a letter inviting participation and providing informed consent, a comprehensive survey about work-related violence, and a postage-paid, return envelope. In addition, as many as three follow-up mailings were sent to maximize the response rate. If no response was received after these mailings, a brief, one-page survey, cover letter, and postage-paid return envelope was sent to determine if the person worked as a nurse in the previous 12 months, and whether or not the nurse experienced work-related violence during this time (**Appendix A**). During Phase 2, a nested case-control design was used to examine the relation between potential risk factors and work-related assault injuries. A questionnaire was sent to the cases and selected controls to obtain data on work environment exposures including the characteristics of nurses and significant others in the workplace and surrounding environmental factors. Cases were questioned about their exposures prior to and during the incident. Controls were questioned about their exposures on a randomly selected time from the study period to provide the person-time exposure information. Follow-up measures for the case-control phase were identical to the methods used during Phase I. Subjects were mailed a letter inviting participation and providing informed consent, a comprehensive survey about work-related violence, and a postage-paid, return envelope. Up to three mailings were sent to maximize the response rate. If no response was received after these

mailings, a brief, one-page survey, cover letter, and postage-paid return envelope was sent in order to determine if the nurse worked in a nursing position prior to a specific month, his/her experience with work- and non-work-related violence, education level, and years worked as a nurse (**Appendix B**).

Data Collection Instruments

The Phase I, Comprehensive Survey data collection included the following: 1) whether or not the nurse worked in a nursing position in the previous 12 months, and during which months; 2) demographic information such as race, years of experience, year of graduation, specialty training (although age and gender are identified in the licensing data bases, information on these variables was, also, collected through the data collection instrument); and 3) number of relevant work-related violence events during the study period. A data collection instrument was designed to enable the participants to provide information about each event, including date of the event, description of the perpetrator(s) involved, surrounding circumstances and activities at the time of the event, location of the event, type of injury(ies)/diagnosis(es) and anatomical location(s), relevant length of restricted activities, lost work time and medical treatment sought or self-administered (**Appendix A**). This information enabled determination of eligibility of the respondent in the cohort (e.g., practiced in Minnesota during the study period), whether or not the reported violence events met the definition of work-related violence, and collection of demographic and potential exposure information on the entire random sample.

The case-control portion of this study provided a method to investigate factors that may prevent or cause work-related PA events. Cases were questioned about their exposures prior to and during the incident, while controls were questioned about their exposures on their randomly selected months. Questionnaires, encoded for the respective month, along with explanatory letters, were sent to all participants. Both cases and the controls were questioned about: personal information (including demographics, numbers of hours worked per week, numbers of hours of patient contact, workload, shifts worked, assault management training, prior work and non-work related assault injuries); environmental exposures (including types of facilities and departments in which they worked primarily, numbers and types of professionals working in the immediate environment, protocols for patient/visitor management, availability of security systems, types of security systems, established procedures for assault intervention, physical environment including lighting, use of specific barriers, room configurations, level of support by administration and colleagues, and level of tolerance for harassment and abuse); and others (other workers and patients) in the work environment (including demographics, patient impairment status, and the average duration of hospitalization of patients). These data were, then, used to compare exposures between cases and controls and enabled identification of specific risk factors for the work-related violence events. (**Appendix B**).

Conceptual Model

The original, overall conceptual model for the occurrence of work-related violence events is presented in **Figure 1**. This model was based on the epidemiological model of human damage involving the dynamic interactions of a host, agent(s) and vehicles (or vectors) within the environment: the host is the person injured; the agents of injury are various forms of energy, including mechanical energy which accounts for the majority of physical injury events (Gibson, 1961); the vehicle refers to any element in the environment that conveys the agents (in the case of assaults among nurses, the vehicle involves another person who may transmit the energy via the use of extremities to hit or kick or, possibly, by using a knife or gun that facilitates transmission of the energy (Haddon et al., 1964; Robertson, 1984). In the following, additional information is provided on the variables identified in **Figure 2** that elaborates upon Figure 1. This model was based on previous published information, deduction from this information and previous knowledge of injury mechanisms:

Personal Characteristics

Personal characteristics, including age, gender, race, marital status, education, and socioeconomic status are also regarded as potential risk factors. A person's characteristics would play an important role in their interpersonal relations with their coworkers and patients as well as their work philosophy on how to approach their work and treat their patients and colleagues. Stress

also plays a role in one's interpersonal relationships. Such relationships may become tense when stresses, including personal problems, overwork, or environmental stresses, such as overcrowding or noise are present.

Age

It is well known that age will affect one's tolerance and reaction time, which plays an important role under emergency situations in preventing injury. As a person ages, usually his/her tolerance will decrease and reaction time will increase. It is expected that an older person will have more severe outcomes from an injury assault than a younger person after controlling for all other factors.

Physical Size

Physical size is associated with the tolerance of one's body to the outside forces that will affect the severity of the injury outcome. For gender, it is not known if males have a greater tolerance for forces than females; however, males do have some advantages through greater upper body strength than females. The relative physical size between the nurse and his/her assailant is also an important factor to consider.

Education

Education is associated with nurses' job types. The duration of an educational program for registered nurses (RNs), that may or may not include a baccalaureate degree, is typically much greater than that required for licensed practical nurses (LPNs); the duration of an educational program ranges from two to four or even more years for RNs and from eleven months to two years for LPNs. However, to obtain their licenses, all RNs and LPNs must pass relevant board examinations. Depending on the institution, work-related activity may vary greatly for RNs and LPNs. Typically, RNs may have more responsibility for patient care planning while LPNs are responsible for more basic patient care activities; however, such roles may vary in different institutions. Combining the factors of education and work experience can lead to different job types, e.g., administrator, supervisor, specialist, or direct patient caretaker and, thus, to differences in exposures.

Work Experience

Work experience may be associated with the opportunity to receive assault prevention training in the work environment. Experienced versus less experienced workers may approach their work and treat their patients differently (work philosophy). As previously identified, work experience in combination with education likely contributes to a person's job type and activity and, therefore, may affect their patient contact hours.

Job Types

Job types contribute to different tasks and activities in the workplace that require various levels of direct patient contact. Some job types require no direct physical contact with patients, such as those involving consultants, while some require limited direct patient contact such as specialists and, perhaps, supervisors/administrators; other job types may involve more than 80% of work hours in direct patient contact. The type of institution, type of department/unit and type of patients will also affect direct patient contact hours, as well as the type of shift on which one works. For example, daytime shift nurses may have more activities to complete and, thus, need to interact with patients more frequently than other shift nurses. Hours of direct patient contact is suggested as a risk factor for being assaulted by patients. Increasing hours of contact is likely to increase the risk of being assaulted by patients.

Work Environment

The work environment plays a very important role in the model. Nurses work in a broad range of work environments, including hospitals, clinics/offices, nursing homes, etc. They provide services to different health care seeking populations (types of patients). In traditional hospital and clinic settings, health care seekers, identified as patients, could be categorized into particular institutions and departments/units where they receive care according to their diagnoses. Each work environment may have characteristics similar to others, as well as unique characteristics, such as the physical design, work routine and activities, administrative policies and types of patients (including their mental status, age, diagnoses, interpersonal interaction, length of stay in the health care setting, etc.)

Some nurses may be required to work alone in areas where there is no security or minimal security. Others may work in a well-protected environment in which there is a complete security system (including video monitors, metal detection devices, panic buttons/alarms, and security guards, etc.), well-designed physical settings (including protective barriers for nursing station/office, walls that do not block escape and rescue, etc.), and good lighting. Some work environments may have well-written assault prevention policies, including criteria for minimum staffing, training, policies for patient seclusion, and procedures for assault prevention, etc. It is believed that the administrators' attitudes will play an important role in the implementation of such policies and relevant security systems.

This model reflects factors hypothesized to result in violence outcomes; however, in the case of reaction time or tolerance, for example -- information that could not be readily collected in the current project -- the next level of variables served as proxy data. In particular, the model enabled determination of which questions to include in the data collection instruments to ensure that adequate information was collected on both potential risk factors and potential confounders without including extraneous questions.

This model enabled an overview of the interplay of the various risk factors and assisted in guiding data collection, analysis and interpretation. With regard to analysis, hypothesized risk factors were grouped under the separate headings of nurses' characteristics, characteristics of others, and environmental factors. References providing the background information, for these hypotheses, are cited respectively in the following section. (Refer, also, to Background section.) Very limited research has been conducted on risk factors for work-related violence; the citations reflect knowledge based on both descriptive and analytic research specific to the area of interest as well as previous knowledge of risk factors for injury, in general. Hypotheses without specific references identified were based on information provided by numerous experts in concert with the experience and expertise of the investigators. Hypotheses were based on the theoretical framework that considers the dynamic interaction of the individual (nurse) within the environment, including patients and other co-workers and various factors related to the facility and management. In the theoretical epidemiological context, the agent involved is the energy generated by the patients or other co-workers through physical contact, using a body part or weapon, or emotional contact through threats. Specific hypotheses pertinent to the risk of work-related violence included the following:

NURSES

Nurses-Personal Characteristics

Individuals who have the following characteristics, compared with those who do not, will have an increased risk:

- Individuals 40 or less (versus more than 40) years of age (LaMar et al., 1998)
- Males (versus females) (Sullivan and Yuan, 1995; Liss and McCaskell, 1994a; Hanson and Balk, 1992; Carmel and Hunter, 1989; Klein et al., 1997)
- Whites (versus non-white Hispanic) (Klein et al., 1997)
- Never married, divorced/separated (versus married) marital status (Klein et al., 1997)
- Socioeconomic status less than (versus greater than) \$40,000/year (Klein et al., 1997)
- Body mass, above the normal range (versus normal or below)
- No college (versus college) education
- History (versus no history) of prior assaults
- No assault management training (versus assault management training) (Carmel and Hunter, 1990; Infantino and Musingo, 1985; and Lanza et al., 1991)

Work-Related Characteristics

Individuals who have the following characteristics, compared with those who do not, will have an increased risk:

- Low (versus high) level of work experience
- Low (versus high) level of administrative responsibilities
- Work primarily on a night shift (versus day or evening shifts)
- Work more than (versus less than) e.g., 50 hours per week
- Have more than (versus less than) e.g., 35 hours of patient contact per week

- High (versus low) numbers of patients to care for (e.g., patient/nurse ratio greater than 7 per shift) (Lee et al., 1999)

OTHERS

Co-Workers

Individuals working in an environment in which the characteristics of co-workers involve the following, compared with those who do not, will have an increased risk:

- Average age above 40 years (versus less)
- Primarily female gender (versus male) (LaMar et al., 1998)
- White (versus non-white) race
- Low (versus high) numbers and levels of staff
- Low (versus high) level of positive interaction and support (Distasio, 1995)
- History (versus no history) of assaultive behavior (Distasio, 1995)

Patients

Individuals who work in an environment involving the following characteristics with patients, compared with those who do not, will have an increased risk:

- 65 years of age or older (versus less)
- Male (versus female)
- White race (versus non-white)
- High patient/staff ratio (versus low patient/staff ratio) (Benjaminsen, 1991; Jones, 1985; Lee et al., 1999)
- Psychiatric (versus non-psychiatric) patients (Lee et al., 1999)
- Moderately to severely injured/ill patients (versus severely injured/ill)
- High number of days of stay (versus low number) (Lee et al., 1999)
- Impaired (versus non-impaired) mental status (Lee et al., 1999; Cooper and Mendonca, 1989; Jones, 1985)
- History (versus non-history) of assaultive behavior (Drummond et al., 1989)

ENVIRONMENT

Facility

Individuals who work in an environment involving the following characteristics, compared with those who do not, will have an increased risk:

- Type of facility, e.g., psychiatric (versus non-psychiatric) facility
- Location of facility in urban (versus rural) area
- Department specialty, e.g., psychiatric (versus other) specialty (Lee et al., 1999; Yassi, 1994)
- Staffing patterns that do not account for types of patients (versus those that do)
- Physical attributes, e.g., including lack of appropriate barriers (versus environments that do include these) (Levin, 1992)

Management

Individuals who work in an environment involving the following management-related characteristics, compared with those who do not, will have an increased risk:

- Tolerance of violence (versus zero tolerance) (NIOSH, 1996)
- Low (versus high) level of support for employees (Distasio, 1995)
- Low (versus high) level of employee assistance/resources (Distasio, 1995)
- No evidence (versus evidence) of specific policies/protocols for management of patients and co-workers (Best, 1990; Distasio, 1995)
- One or less (versus multiple) types of security (Lee et al., 1999; Simonowitz, 1996)

Pilot Testing

To test the methods and data collection instruments, a pilot study was first conducted on a random sample of 220 nurses from this study population. To accomplish this selection process, the respective databases for the registered nurses and licensed practical nurses were combined. A random selection of 200 nurses, and an additional purposeful over-sampling of 20 dual-licensed (both registered nurse and licensed practical nurse licenses) was chosen.

To maximize the overall response rate, as many as three full follow-up attempts and a final one-page survey for non-responders, were employed. Because the cost of follow-up was

significant, a test of mail versus telephone and mail modes was conducted. Initially, the 220 nurses randomly selected for pilot-testing were divided randomly into two groups: one-half were assigned to the mail only follow-up group, and the other half to the telephone and mail follow-up group. Additionally, each of these two groups was also divided randomly into two groups: one group received a survey that requested the nurse to provide a telephone number where they could be reached while the other group received an identical survey without the telephone number request.

Each nurse was sent an initial cover letter that invited participation into the study and provided informed consent; a comprehensive Phase 1 survey instrument, and a postage-paid, return envelope were enclosed. If there was no response to the initial survey within four weeks, those assigned to the mail-only follow-up group were mailed another survey, cover letter, and return envelope. The follow-up process for the telephone and mail mode group commenced with a reminder telephone call. All telephone calls served as reminders only; no telephone interviews were conducted. Prior to the telephone calls being placed, the research team searched for current telephone numbers, as this information was not provided by the licensing agencies. A combination of many search methods was used, including use of telephone books, Internet searches, CDROM-based telephone directories, and directory assistance. Those who were assigned to the telephone follow-up group, but for whom no telephone number could be found, were followed up as if they were in the mail-only follow-up group.

Despite these efforts, there were still 18 nurses for whom telephone numbers could not be located. Those who were assigned to the telephone follow-up group, but for whom no telephone number could be found, were followed up as if they were in the mail-only follow-up group.

The nurses, for whom a telephone number was found, had a minimum of eight telephone contacts attempted. These calls were made during different days of the week, including Saturdays, and at different times of the day.

If no response was received four-weeks after the first follow-up mailing for the mail-only group, or four weeks after the telephone contact for the telephone and mail group, a second follow-up was conducted. Again, the nurses assigned to the mail-only follow-up group were sent a cover letter, survey, and return envelope; attempts to call those in the telephone and mail group were also implemented. If no response was received four weeks after the second follow-up mailing for the mail-only group, or four weeks after the telephone contact for the telephone and mail group, a third follow-up was conducted. Again, all nurses were sent a cover letter, survey, and return envelope. If there was still no response, after three follow-up attempts, nurses were sent a short, one-page survey (requesting basic information on exposures and episodes of violence), cover letter, and a return envelope.

For the two follow-up methods (mail-only and a combination of mail and telephone follow-up), there was no difference in the response rates (overall response = 82%). However, there were numerous additional efforts and costs expended into completing the telephone follow-up process. These included extra charges for long distance calls, and a high level of personnel time. Thus, it appeared that the use of mail-only for follow-up was more efficacious for this population. Requesting a telephone number did not change the response rate for this survey. Over half of the nurses who were asked to provide a telephone number did so, which may indicate that, overall, this may be an acceptable method of obtaining additional information, if necessary.

Modifications were made to the comprehensive survey instrument, based on feedback from the pilot study participants, and discussion with the study team. Pilot testing was also conducted prior to the case-control phase of the study (overall response = 70%). Again, the survey instrument underwent minor revisions, based on participant feedback.

Data Analysis

The ultimate goal of the data analysis was to estimate the impact of the above factors on work-related violence, controlling for important confounding factors. Primary exposures of interest included: department; staffing patterns; physical attributes of the facility; various environmental factors; management tolerance of violence and support for employees; policies/protocols; security; patient mental status; volume of patients; history of assaultive behavior against staff; workload; patient contact (hours, numbers); job type; work experience; and assault management training. The other factors, identified in the figure, were examined, as well; data on personal demographic

characteristics, were also examined for potential confounding or modifying risk effects. Potential confounding factors included other known or suspected risk factors, such as age, gender, race/ethnicity, socioeconomic status, and history of previous assaults.

Analyses began with basic descriptive statistics on the sample and the consequences of reported events, and crude estimates of event rates. For the multivariate modeling, a confounder-selection strategy using causal diagrams, was employed as suggested by the work of Greenland, Pearl, and Robins (1999) and Maldonado and Greenland (2002) and as illustrated by Hernan et al., (2002). These causal diagrams were generated from the complex causal model, identified in **Figure 3**. For each exposure of interest, the causal model was used to identify potential confounders to enter into the analyses. Logistic regression was used to investigate the relationship between exposures of interest and the occurrence of work-related violence. This is a powerful, flexible, and standard method for estimating effects from case-control data (Breslow and Day 1980; Greenland, 1987). It was used to model the probability of an injury/violence event (I) as a logistic function of risk factors (x) and a vector of confounding factors (z)

$$P(I|x,z) = \frac{\exp(\alpha + \beta x + \gamma z)}{1 + \exp(\alpha + \beta x + \gamma z)}$$

where a, b, and g were model coefficients to be estimated from the data. The odds ratio for the effect, for example, of a dichotomous variable x (coded 1= yes, 0 = no) was equal to $\exp(\beta)$. The control selection procedure yielded a random sample of the person-time for the cohort; therefore, calculated odds ratios estimate rate ratios for the effect of exposures on the rate of work-related assault (Breslow and Day, 1980, Greenland, 1987). To account for the variability not only from sampling but also from uncertainty about the non-response adjustment weights, confidence intervals for event rate estimates and regression coefficients were calculated by the bootstrap method (Efron and Tibshirani, 1993). Potential response bias was controlled by inversely weighting observed responses by probabilities of non-response, estimated as a function of characteristics available from the licensing database (age, gender, license type, and home address: metropolitan versus non-metropolitan area) (Horvitz and Thompson, 1952). To account for unknown eligibility among non-respondents, probability of eligibility was estimated from these same factors (Mongin, 2001).

Bias Evaluation

Information Bias

An important consideration in any epidemiologic study is the assessment of measurement error. Measurement error is thought by methodologists to be one of the most serious threats to the validity of epidemiologic study results because it can result in a large amount of bias (Maldonado, 1993; Copeland et al., 1977; Dosemeci et al., 1990; Gilbert, 1991; Flegal et al., 1991; Wacholder et al., 1991). It was anticipated that there was a potential for measurement error in the reporting of both work-related violence events and risk factors for these events; this potential problem was addressed in several ways.

First, errors in reporting injury and relevant exposures were aggressively minimized. Second, a validation sub-study was conducted to estimate the degree of measurement error due to self-reporting of physical injury consequences as described below. Finally, sensitivity analyses were performed to assess the likely magnitude of bias due to self-reporting of exposures. While it is not technically possible to fully "correct" risk estimates for bias due to measurement error (Greenland and Kleinbaum, 1983), sensitivity analyses serve as a "correction" for measurement error in the sense that upper and lower bounds for risk estimates, under different plausible scenarios for measurement error, were obtained.

Validation procedures were conducted for self-reported PA injury occurrences through review of health care records (**Appendix C**). The medical validation of reported injuries was important to evaluate the error in injury self-reporting, so that the extent of bias due to this error could be assessed. Equal numbers of both cases (n=135) and controls (n=135) were contacted for the names and address of their health care provider(s). Each person was sent a consent form that

enabled release of the injury information to the study staff; a stamped, pre-addressed return envelope was enclosed. The medical persons/sources to be identified were: physicians, dentists, chiropractors, clinics, hospitals, and emergency departments, as appropriate. Each medical care person/source was sent a letter along with the consent form, and a one-page questionnaire asking about any health care contacts by the person for injuries during the specified study period. These analyses allowed for a range of odds ratio estimates to be calculated, based on possible errors in self-reporting of injuries.

Exposure self-reporting may introduce bias in the form of recall of events. By limiting the time period to one month within the preceding year, it was anticipated that this bias was minimized. A specific validation effort was conducted to identify potential bias associated with certain exposure variables (**Appendix C**). To accomplish this, a random sample of 135 cases and 135 controls was contacted and requested to provide their workplace mailing address. Subsequently, a cover letter with a stamped, return envelope and brief, one-page survey was sent to the subjects' workplaces to request information about several available important exposures during the study period (e.g., type of facility; facility ownership and location; and information regarding violence prevention policies). From comparisons of the information provided by the subjects, with the workplace records, sensitivity analyses were performed to enable determinations about the magnitude and direction of the bias.

Selection Bias

Potential response bias was controlled by inversely weighting observed responses by probabilities of non-response estimated as a function of characteristics available from the licensing database (age, gender, license type, and home address: metropolitan versus non-metropolitan area) (Horvitz and Thompson, 1952). The probability of being eligible among the respondents across these same characteristics was used to estimate the unknown eligibility among non-respondents (Mongin, 2001).

RESULTS

Phase 1 – Comprehensive Study

From the *comprehensive study* results, that adjusted for the eligible fraction of the entire sample (n = 6,300), there was an overall response rate of 78%. Response rates for RNs and LPNs were estimated at 79% and 73%, respectively.

Characteristics of the study participants revealed that nearly all were women (96%), the average age (s.d.) was 46 years (10.1), and 75% were RNs. The highest level of nursing education was most commonly a diploma (39%), followed by associate (28%), and bachelor (26%) degrees; few had completed master's (6%) or doctoral degrees (<1%) (Refer to Table 1). Males (compared with females) appeared to be at increased risk of PA (OR 1.820; 95% CI 1.211, 2.735); the effect was not as important for NPV (OR 1.212; 95% CI 0.872, 1.684). Also, as the age of the nurse increased (per year), the odds of PA (OR 0.982; 95% CI 0.972, 0.991) and NPV (OR 0.987; 95% CI 0.980, 0.993) decreased. Analyzed by license type, LPNs, compared with RNs, appeared to be at increased risk for PA; this effect was not seen for NPV.

Most frequently, nurses reported the primary facilities in which they worked as hospital in-patient (39%). This was followed by nursing home/long-term care (18%), clinic/health care provider office (13%), home health agency (7%), hospital out-patient (6%), and school/college/university (4%); 5% reported splitting their time equally between different types of facilities. Facility ownership was reported most frequently as private (67%), versus those that were city/town, county, state, or federally owned. (Refer to **Table 1**.)

Also, shown in **Table 1**, the primary departments in which nurses most often worked were medical/surgical (33%), public health/home care (9%), family practice (8%), and psychiatric/behavioral, operating/recovery, and intensive care (7% each). Primarily, nurses worked with adults (43%) or geriatric patients (23%), while 23% reported splitting their time equally between different patient populations. Most nurses reported their primary professional

activity as providing patient care (62%); supervising patient care (6%) and administration (5%) were the next frequently reported, while 13% split their time equally between activities.

Based on data from the *comprehensive study* (**Table 2**), the adjusted PA rate for nurses in Minnesota, based on incurring at least one assault, was 13.2 per 100 persons per year. Assault rates were increased for LPNs compared with RNs (16.4 and 12.0, respectively) and males compared with females (19.4 and 12.9, respectively). For NPV (threats, sexual harassment, and/or verbal abuse), the adjusted rate was 38.8 per 100 persons per year; these rates were 38.5 and 39.7, respectively, for LPNs and RNs. Adjusted rates for males and females, respectively, were 45.0 and 38.5. Nearly 34% of nurses reported work-related verbal abuse, over 17% reported work-related threats, and 7% reported work-related sexual harassment in the previous 12 months.

The time period, over which the NPV occurred, ranged from being identified as a single event (30%) to those involving repetitive/continuous behaviors for greater than nine months or more (36%). At the time of the study, 46% indicated that the behavior was continuing.

In **Table 3**, reporting is based on PA (specific events or ongoing events) and NPV (threats, sexual harassment and verbal assault events). It is shown that the majority (over 90%) of PA events was perpetrated by patients/clients, while perpetrators of NPV were more varied and included patients/clients (67%), doctors (13%), patients' visitors (11%), other employees (11%), and supervisors (10%). The majority of perpetrators associated with PA was described as impaired because of disease/illness (>80%), or prescribed medication (18%); male; and 66 years of age or older. Only 8% were perceived as not impaired. In contrast, perpetrators associated with NPV were also frequently perceived as impaired because of disease/illness (41%) or prescribed medication (12%); however, 47% were perceived as not impaired. They were also primarily male and 35-65 years of age.

By location (not shown), the PA identified as specific events, occurred in: patient rooms (61%); hallways (20%); reception, lobby, or lounge areas (8%); nursing stations (4%); procedure or exam rooms (5%); bathrooms (2%); classroom or meeting rooms, offices, and elevators (each less than 1%); and other (1%). Some differences were noted for the ongoing physical events, respectively: 72%; 37%; 11%; 13%; 0%; 20%; less than one%, each; and 0%. Locations/sources of the behaviors associated with NPV events were face-to-face (90%), telephone (16%), email/mail (2%), and other (3%).

Anatomically, PA (not shown) for specific events, primarily involved: arm/elbow/wrist (47%); or hand/finger/thumb (13%); Also, involved, were anatomical sites, including: face (13%); leg (8%); head/skull/brain (5%); and external chest (6%). For ongoing events, again, the proportions differed, respectively: 70%; 33%; 26%; 20%; 7%; and 2%. The resulting types of PA injuries (specific events or ongoing events) reported most frequently were bruises/contusions, temporary discolorations/slap marks, cuts/lacerations/scratches, or abrasions; no overt physical injury was identified for some of the events despite the fact that the events were reported according to the definition of physical assault.

The "instruments" used in the PA (not shown), for specific events, were hands/arms (87%); feet/legs (39%); teeth (15%); bodily fluids, includes spitting (7%); knives (<1%); genitals (<1%), and other (<1%) For ongoing events, there were also some differences observed, respectively: 91%; 63%; 31%; 19%; 2%; <1%; and <1%.

Very small proportions of either the PA ($\leq 6\%$) or NPV (1%) cases were hospitalized. Respective proportions of those who experienced PA or NPV reported self-treatment (18% specific events, 20% ongoing events, and 8% non-physical violence) of their injuries while approximately 8% (specific events), 4% (ongoing events) and 6% (non-physical violence) sought care from health care providers; large proportions reported having no treatment (e.g., 74%, specific events; 70%, ongoing events; 81%, non-physical violence).

The most commonly reported consequences of both PA and NPV were frustration, anger, fear/anxiety/stress, and irritability, with much greater proportions reported for NPV for each of the consequences (**Table 4**). Although 8% of nurses who were physically assaulted reported persistent problems as a result of the event, nearly 13% who experienced NPV reported persistent problems. In addition, less than 10% of nurses reported changes in their work status as a result of

PA; however, nearly 22% among those who reported NPV identified changes, including 6% who quit as a result.

Based on multivariate analyses, increased risks were shown for both PA and NPV for working primarily in nursing homes/long term care/rehabilitation facilities (PA: OR 2.589, 95% CI 2.068, 3.228; NPV: OR 1.459, 95% CI 1.213, 1.760). Risks were also increased for working primarily in psychiatric/behavioral (PA: OR 2.063, 95% CI 1.474, 2.820; NPV: OR 2.771, 95% CI 2.065, 3.613), emergency (PA: OR 2.475, 95% CI 1.393, 4.181; NPV: OR 3.130, 95% CI 2.056, 4.824), and intensive care (PA: OR 1.499, 95% CI 0.995, 2.181; NPV: OR 1.341, 95% CI 1.007, 1.809) departments, with the latter being suggestive for PA.

Working with primarily geriatric populations increased the risks of both types of violence, when compared with an adult population, although it was only suggestive for NPV (PA: OR 2.342, 95% CI 1.619, 3.289; NPV: 1.204, 95% CI 0.937, 1.545). In addition, increased risks were shown for provision of direct patient care and supervision of patient care for PA, only (OR 1.849, 95% CI 1.345, 2.538 and OR 1.750, 95% CI 1.090, 2.754, respectively).

Phase 2 – Case-Control Study

Because the majority of PA was perpetrated by patients/clients (96%), analyses for the case-control study incorporated only those cases (n = 310). Characteristics of, and pertinent exposures for, the cases and the 946 controls are shown in **Table 5**. Cases, compared with controls included, in general: similar distributions by gender and age; lower proportions of RNs (69%; 74%); lower proportions with bachelor's degrees or higher (23%; 33%); greater proportions working primarily in nursing homes/long term care facilities (45%; 16%), in departments of long-term care (40%; 15%) or psychiatric/behavioral (11%; 6%), with geriatric populations (46%; 22%), with those populations involving one month or more of institutionalized care (44%; 26%), and providing or supervising patient care (84%; 70%).

Several personal exposures were investigated: at the univariate analysis level, years worked as a licensed nurse identified a significant decrease in the risk for PA with each additional year worked (OR 0.978; 95% CI 0.966, 0.990, change per year); this appeared less important with the multivariate modeling (OR 0.983; 95% CI 0.966, 1.001). Years worked in their primary department revealed a decreased risk for each year worked (OR 0.982; 95% CI 0.965, 0.998, change per year) at the univariate analysis level but, not at the multivariate level (OR 0.989; 95% CI 0.971, 1.007). An increased risk, for each additional hour worked, was identified for patient contact hours at the univariate level (OR 1.071; 95% CI 1.025, 1.119, change per hour); but, this was less important, although suggestive, at the multivariate level (OR 1.05; 95% CI 0.987, 1.105).

Decreased risks were identified for each increase in the number of nurses working on the shift at both the univariate analysis level (OR 0.991; 95% CI 0.975, 1.007, change per each nurse) and the multivariate analysis level (OR 0.998; 95% CI 0.973, 1.015); however, these were suggestive, only. Similar effects were seen for the increase in all personnel on the shift at both levels of analyses (OR 0.989; 95% CI 0.978, 1.000) (OR 0.997; 95% CI 0.982, 1.012).

Based on multivariate analyses, increased risks were shown for: working primarily in nursing homes/long term care/rehabilitation facilities (OR 2.637, 95% CI 1.914, 3.597); and working primarily in emergency and psychiatric/behavioral departments (OR 4.224, 95% CI 1.327, 12.792 and OR 2.030, 95% CI 1.054, 3.729, respectively). A reduced risk was seen for working primarily with neonatal, pediatric, and adolescent populations (OR 0.438, 95% CI 0.222, 0.987).

Among numerous environmental design characteristics, an increased risk was demonstrated through multivariate analyses for working in environments that were illuminated "less than bright as daylight," compared with "bright as daylight," (OR 2.153, 95% CI 1.578, 2.832). The use and provision of portable alarms/protective devices were also studied. Carrying a cellular telephone/personal portable alarm provided by the nurse (OR 0.300, 95% CI 0.153, 0.709), or provided by other sources (OR 0.694, 95% CI 0.493, 0.997), resulted in decreased risks; however, if telephones were provided solely by the employer, there was no effect.

Sensitivity Analyses

Sensitivity analyses were conducted to assess the magnitude and direction of bias. Using the methods described by Rothman and Greenland (1998), analyses were conducted in which the prevalence of an unmeasured confounder in the group of nurses who provided and carried a cell phone/personal alarm was equal to, less than, or greater than the prevalence of the confounder in the group of nurses who did not. The sensitivity analyses suggested that provision of a cell phone/personal alarm by a nurse remains protective, even in the presence of a strong confounder. A large difference in prevalence of the confounder between nurses who provided these devices and those who did not would be required for the protective characteristic to be lost. Comparable analyses were also done pertinent to the level of illumination of the environment. While the odds ratios associated with lighting level were slightly more sensitive to the presence of an unmeasured confounder, this occurred only when the odds of assault associated with the confounder were very large.

Validation Studies

Health Care Provider Validity Sub-study Results

A random sample of 135 cases and 135 controls was selected for the health care provider validity substudy, to validate data about reported PA events. Both nurses who indicated treatment, and those who did not, were included in this substudy to evaluate under- or over-reporting of injury treatment. If nurses did not receive health care during the time period specified, they were asked to complete release-of-information forms to be sent to health care providers, who they *would have seen*, had they needed treatment. (This was done to account for potential errors if the nurse remembered the treatment occurring in a different time period, or to verify if treatment was documented by the health care provider when no treatment was indicated by the nurse on the comprehensive survey).

A cover letter, including informed consent, a stamped-return envelope, three forms requesting the name and address of their health care providers during a specific time period, and samples of the letter and one-page form to be completed by the health care provider were included in the mailing for this substudy (**Appendix C**). Directions were included for the participants to make additional photocopies of release-of-information forms or to call for additional copies, as needed.

Of the 270 nurses, 17% (n=47: 27 cases; 20 controls) responded to the request in some way. Among these; 16 nurses (6%) completed 22 release of information forms for their health care providers (10 cases for 12 providers and 6 controls for 10 providers); 2% (n=6: 2 cases; 4 controls) refused participation in this sub-study, and 9% nurses (n=25: 15 cases; 10 controls) responded by returning their own sample form, release of information, or letter, indicating they had not received medical treatment during the sub-study time frame. Telephone call attempts were made to these persons to clarify their responses.

Of the 22 health care providers contacted, 77% (n=17: 9 cases; 8 controls) responded with medical record information. Of these, 16 health care providers were in agreement with the nurses' responses; all 16 health care providers and nurses indicated they had received no treatment for work-related violence injuries during the specified period. The one discrepancy existed when a nurse indicated "self-treatment" on the survey, but the health care provider reported treatment for a (possible) work-related violence event.

Exposure Validity Sub-study Results

This substudy was conducted to compare responses between nurses and employers regarding the work environments, including written work-related violence prevention policies. Several exposures were examined: primary type of facility in which the nurse reported working; ownership of the facility; location of the facility; total number of beds in the facility; and specific information on the existence of a written policy on violence, including various components of the policy.

Letters were sent to a random sample of nurses (135 cases and 135 controls), requesting the institution names of their employers. Copies of the letters and forms that were to be sent to the

employers were also included for the nurses' information. A subset of the questions pertinent to policies to which the nurse had already responded, through the case-control survey, was subsequently posed to the employers. (Refer to **Appendix C.**)

Among the total nurses contacted, 49% (cases = 63; controls = 69) provided the names and addresses of their employers. Some nurses reported working for the same employers (n=59 nurses working for 16 different employers). When this occurred, employers were sent surveys for each of the exposure months, specific to the exposure month identified for the nurse in the case-control survey.

Of the 64 employers who responded to this sub-study, and for which there were data reported by the nurse, the percent agreement regarding written violence prevention policies varied from 39% agreement about zero tolerance policies and requirements for training of staff members to 75% agreement about policies on how to report work-related NPV. Chi-square analyses revealed no important differences between cases and controls when compared with employers' responses.

Consistency of policies within the same employer was difficult to estimate, as the surveys were sometimes completed by different staff members at the facility (including department directors, administrators, and security personnel), and surveys were completed for different time periods. Even when the same staff person completed the employer survey for different months, inconsistencies were apparent; however, it was unclear if these inconsistencies were based on true policy changes over time or errors in reporting, from one survey to the next.

DISCUSSION

This is one of the first major studies to document the magnitude and consequences of work-related violence within a population of workers and to identify specific risk factors for PA, using a nested case-control design. The high response rate of 78% was accomplished through the implementation of rigorous follow-up methods. Of particular importance, is the evidence of high rates of both PA (13.2) and NPV (38.8) per 100 persons per year; however, these rates should be considered conservative, given that they are based on persons incurring at least one work-related PA or NPV event per year when, in fact, there was evidence of occurrence of multiple events among some of the nurses.

Despite lack of comparability with other studies, due to different study methods, populations studied, and definitions of violence, some findings were similar with respect to PA. Males were more likely than females to experience violence (Carmel and Hunter, 1989; Hanson and Balk, 1992; Liss and McCaskell, 1994 a; Peek-Asa et al.; 1997), which may relate to differences in exposures. As in this study, younger age has been associated with an increased likelihood of incurring an occupational assault (Toscano, 1996; LaMar et al., 1998; Riopelle et al., 2000). Other personal exposures were also identified as potentially important. At the univariate analysis level, years worked as a licensed nurse indicated a significant decrease in the risk for PA with each additional year worked; this appeared less important with the multivariate modeling. Years worked in their primary department revealed a decreased risk for each year worked at the univariate analysis level but, not at the multivariate level. An increased risk, for each additional hour worked, was identified for patient contact hours at the univariate level; but, this was less important, although suggestive, at the multivariate level. In a study of 1209 emergency department nurses (response, 60%), among 124 acute care hospitals in Pennsylvania, shift duration was directly related to violence; compared with nurses who worked eight-hour shifts, those who worked twelve-hour shifts reported more incidents of verbal abuse ($X^2 = 10.84$, $p < 0.05$) and threats or intimidation ($X^2 = 20.29$, $p < 0.001$) (Mahoney 1991). These findings are important for further study and also for consideration by employers.

From analyses of environmental design and other environmental characteristics, an increased risk was demonstrated for working environments that were illuminated "less than bright as daylight," compared with "bright as daylight;" although the current study examined the immediate work environment, results from a previous case-control study of occupational homicide, identified reduced risks with bright exterior lighting (Loomis et al., 2002). For both PA and NPV, working

in a nursing home/long-term care/rehabilitation facility increased risk the greatest in this study, based on multivariate modelling. Consistent with the current findings, working in psychiatric (Yassi, 1994; Baxter et al., 1992) and emergency (Barlow and Rizzo; 1997) departments has been identified previously as placing persons at greatest risk of work-related violence. In addition, decreased risks were identified if the nurse carried a cellular telephone/personal portable alarm either self-provided or provided by other sources (but not solely by the employer). Decreased risks were also identified for each increase in the number of nurses, as well as for each increase in the number of all personnel working on the shift at both the univariate and multivariate analyses levels; further in-depth examination of these exposures is essential as a basis for appropriate intervention.

Patients/clients were reported most frequently as the source of PA (96 percent) and NPV (67 percent); similar reports for PA have been identified (Grainger and Whiteford, 1993; Yassi, 1994; Williams, 1996; Sullivan and Yuan, 1995; Lee et al., 1999; Riopelle et al., 2000). Perpetrators were more likely male, agreeing with findings by Eisele et al. (1998); however, perpetrators were more often male for NPV than PA. Based on multivariate modelling, working with geriatric populations appeared to increase the risk for PA and was suggestive for NPV. Impairment of the perpetrator, due to disease/illness, medication, or drugs/alcohol, has also been identified previously (Helmuth, 1994; Murray and Snyder, 1991; Drummond et al., 1989; Jones, 1985; Lanza, 1983; Aquilina, 1991; Cooper and Mendonca, 1989; Mahoney, 1991). However, as demonstrated in the current effort, the proportions of perceived impairment are much greater for PA than NPV.

The physical, emotional, and financial costs of violence to the victim, and society, in general, appear to be important. Adverse consequences of violence reported in the current study are similar to those reported by others (Center for Mental Health Services, 1994; Health Services Advisory Committee, 1987; Miller et al., 1993; Simonowitz, 1995; Liss and McCaskell 1994 b; Lanza, 1983; Caldwell, 1992; Ryan and Poster, 1989). Occupational violence has been associated with diminished efficiency and reduced productivity, increased turnover, absenteeism, counseling costs, decreased staff morale, and reduced quality of life (Center for Mental Health Services, 1994; Health Services Advisory Committee, 1987; Miller et al., 1993). Even in the absence of injury, some assaulted staff experienced moderate to severe reactions for as long as six months to one year. In a study by Caldwell (1992), of 224 clinical mental health staff (55 percent response rate), 61 percent experienced symptoms of posttraumatic stress disorder (PTSD), symptoms that were also identified in the current study. Findorff-Dennis et al. (1999), found that the consequences of violence appeared to continue long after the event occurred. Through a case-study design, it was found that workers' health and quality of life were affected significantly and resulted in job changes, chronic pain, changes in functional status, and depression for as long as four years after the assault.

Financial costs of violence, such as lost work-time, productivity, medical costs, and costs incurred from replacing staff who leave their positions, following an assault incident, account for only a portion of the total costs. McGovern et al., (2000) studied all incidents of PAs that resulted in indemnity payments, identified from the Minnesota Department of Labor and Industry (DLI) Workers' Compensation system in 1992. Total costs for 344 nonfatal work-related assaults were estimated at over \$5.8 million (in 1996 dollars) and, within health care, employees had a rate of 76 assaults per 100,000 employees, averaging \$13,197 per case, and \$10 per employee in the industry. Hashemi and Webster (1998) examined nonfatal workplace violence claims with a single large workers' compensation carrier from 51 U.S. jurisdictions between January 1, 1993 and December 31, 1996, and estimated the total cost to be more than \$84,000,000.

The consequences of NPV reported in this study deserve particular attention, especially since these consequences appeared to be more severe than for PA. This is not to minimize the problem of PA but, rather, to highlight the fact that the effects of NPV should not be minimized. Individual who experience NPV and endure feelings/symptoms over a long duration may be at risk for adverse mental health outcomes such as acute stress disorder or post-traumatic stress syndrome (Brewin et al., 1999). Additionally, work-related violence affects not only the victim but, also, the employer, others in the work environment and significant others outside the work setting. In particular, attention to facilities, departments, patient populations, and activities that place these

people at risk is of great importance and need to be addressed by employers and relevant safety committees. Given the current nursing shortage (Aiken et al, 2001), hospital and health care administrators may want to consider the role that prevention and control of work-related violence could play in affecting the quality of working life for nurses. Results from a survey of registered nurses conducted by the American Nurses Association (2001) revealed that health and safety concerns played a major role in nurses' decisions to remain in the profession, and 25 percent of nurses surveyed reported a fear of sustaining a work-related assault.

Limitations

Limitations include the fact that participants self-reported violence and relevant exposures; thus, there were potential biases: information; misclassification; selection; and confounding. Numerous strategies, implemented to minimize these biases and enhance the overall quality of this study, are identified in the following.

Attempts to minimize recall bias included limiting recall of violence events to the previous 12 months (Gabel and Gerberich, 2002) and recall of exposures to a one-month period within the preceding year (Lee et al., 1999) – approaches that have been utilized in previous studies. To further minimize information bias, nurses were also followed-up by mail to provide missing information, or clarify ambiguous or unclear information, as necessary.

Validation substudies, relevant to environmental exposures and health care treatment were conducted to determine potential measurement error. This included the employer validation sub-study relevant to self-reporting of policies (exposure misclassification). Despite a response of only 49%, and some discrepancies between nurse and employer reporting, a separate study that utilized the current study database, identified sensitivity analyses results indicating that exposure misclassification would have to be extreme to have reversed the protective effect of key exposures of interest (zero tolerance and prohibited violent behavior policies) examined in this validation effort (Nachreiner, 2002). To enhance such validation efforts, future studies would ideally include a validation measure comparing nurses' perceptions to a physical review of policies obtained from employers to estimate the degree to which perception may vary from fact (Nachreiner, 2002). The low response to the health care treatment validation sub-study was not unexpected not only because of the sensitive nature of the problem being addressed but, also, because very small percentages of the PA specific event or ongoing event cases sought healthcare. In addition, the recent heightened sensitivity of the public pertinent to health care record access likely contributed to the low response, particularly because they were requested to identify provider names for a specific period of time, whether or not they had incurred a work-related violence injury. Of the health care records that could be compared with the nurses' reports, all but one were consistent in indicating they had received no treatment for work-related violence injuries during the specified period; one discrepancy existed when a nurse indicated "self-treatment" on the survey, but the health care provider reported treatment for a (possible) work-related violence event. Future strategies need to be tested to optimize such validation efforts, with attention to the issues identified; similar procedures have been successful in prior studies of other populations, resulting in high response rates and correspondence between the health care provider and respondent reports (Gerberich 1983; Gerberich, 1987).

Potential response bias was controlled by inversely weighting observed responses by probabilities of non-response estimated as a function of characteristics available from the licensing database (age, gender, license type, and home address: metropolitan versus non-metropolitan area) (Horvitz and Thompson, 1952). The probability of being eligible among the respondents across these same characteristics was used to estimate the unknown eligibility among non-respondents (Mongin, 2001).

To minimize the effect of confounding, selection of confounders for multiple logistic regression was based on a directed acyclic graph, following the methods described by Greenland et al. (1999). Sensitivity analyses, conducted on key exposures of interest (Rothman and Greenland, 1998) from the current case-control study, suggested that the results remained important, even in the presence of a strong confounder.

CONCLUSIONS

This study is among the first such comprehensive efforts to identify the magnitude of the violence problem and relevant risk factors in a major occupational population. As identified, rigorous applications of methods and procedures were incorporated to ensure optimal quality of data collection, analyses, and interpretation. Identification of specific risk factors serves as a basis for the development of efficacious prevention and control efforts. In addition, results of this effort provide unique opportunities for further in-depth investigation of key risk factors and the most appropriate methods for controlling these factors in various health care settings.

PRESENTATIONS AND PUBLICATIONS

Poster Presentations:

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Watt, Gavin D.; Sikorski, Mary. Minnesota Violence Against Nurses Pilot Study: Preliminary Findings. American Public Health Association (APHA) Conference, Chicago, Illinois, November 7-11, 1999

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Watt, Gavin D.; Sikorski, Mary. Minnesota Violence Against Nurses Pilot Study: Comparison of Follow-Up Methods. 5th World Conference, Injury Prevention and Control, New Delhi, March 5-8, 2000 (Accepted, although unable to attend)

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Watt, Gavin D.; Sikorski, Mary. Minnesota Violence Against Nurses Pilot Study: Preliminary Findings. Midwest Center for Occupational Health and Safety Annual Meeting, Minneapolis, Minnesota, May 2000

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Watt, Gavin D.; Sikorski, Mary. Minnesota Violence Against Nurses Pilot Study: Preliminary Findings. Midwest Center for Occupational Health and Safety Annual Meeting, Minneapolis, Minnesota, May 2001

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Ryan, Andrew; Watt, Gavin D. Minnesota Violence Against Nurses Study: A Comparison of Follow-Up Methods. Society for Epidemiologic Research (SER), Palm Desert, California, June 2002 (*Presented by Ryan*)

Oral Presentations:

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Watt, Gavin D.; Sikorski, Mary. Risk Factors for Work-Related Violence: Methods and Preliminary Results. National Occupational Injury Research Symposium (NOIRS) 2000, Pittsburgh, Pennsylvania, October 17-19, 2000

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Watt, Gavin; Ryan, Andrew. Risk Factors for Work-Related Violence: Minnesota Nurses' Study. Congress of Epidemiology - 2001, Toronto, June 2001

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Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Watt, Gavin D.; Ryan, Andrew D. Minnesota Nurses' Study: Risk Factors for Work-Related Violence. 6th World Conference on Injury Prevention and Control, Montreal, Canada, May 2002

Gerberich, Susan G.; McGovern, Patricia M.; Church, Timothy R.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Ryan, Andrew D.; Mongin, Steven J.; Watt, Gavin D.; The Magnitude and Consequences of Work-related Violence: The Minnesota Nurses' Study. Academy for Health

Services Research and Policy: Annual Research Meeting, Washington DC, June 2002 (*Presented by McGovern: Recognition for one of three outstanding abstracts for Workers and Workplaces category; over 700 submissions were received for the conference.*)

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Ryan, Andrew D.; Mongin, Stephen J.; Watt, Gavin D.; Jurek, Anne. Environmental Risk Factors For Work-Related Violence: Minnesota Nurses' Study, Congress of Environmental and Occupational Epidemiology, Barcelona, Spain, September 2002

Nachreiner, Nancy M.; Gerberich, Susan G.; McGovern, Patricia M.; Church, Timothy R.; Hansen, Helen; Geisser, Mindy; Ryan, Andrew D.; Watt, Gavin D. Work-Related Assault: Impact of Violence Prevention Policy, American Public Health Association, Philadelphia, November 2002 (*Submitted for the Student Paper Competition, Injury Control and Emergency Health Services section of APHA*)

Publications:

• **Dissertation**

Nachreiner Nancy M. Work-Related Assault: Impact of Policy and Training, Ph.D. Thesis, University of Minnesota, Minneapolis, Minnesota 2002 (Database from the current study served as a foundation for the proposal that enabled this dissertation work.)

• **Anticipated Peer-Reviewed Scientific Publications – In Final Preparation:**

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Ryan, Andrew D.; Mongin, Stephen J.; Watt, Gavin D. An epidemiological study of the magnitude and consequences of work-related violence: The Minnesota nurses' study

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Ryan, Andrew D.; Mongin, Stephen J.; Watt, Gavin D.; Jurek, Anne. Environmental risk factors for work-related assaults: The Minnesota nurses study

Hansen, Helen; McGovern, Patricia M.; Gerberich, Susan G.; Church, Timothy R.; Geisser, Mindy; Ryan, Andrew D.; Watt, Gavin D. Work-related violence among registered nurses' and licensed practical nurses: The Minnesota nurses' study

Nachreiner, Nancy M; Gerberich, Susan G.; McGovern, Patricia M.; Church, Timothy R.; Hansen, Helen; Geisser, Mindy; Ryan, Andrew D.; Watt, Gavin D. Work-related assault: Impact of violence prevention policy (Database from the current study served as a foundation for the proposal that enabled this dissertation work.)

Nachreiner, Nancy M.; Gerberich, Susan G.; McGovern, Patricia M.; Church, Timothy R.; Hansen, Helen; Geisser, Mindy; Ryan, Andrew D.; Watt, Gavin D. Work-related assault: Impact of training (Database from the current study served as a foundation for the proposal that enabled this dissertation work.)

Church Timothy R.; Gerberich, Susan G.; Nachreiner, Nancy M.; McGovern, Patricia M.; Hansen, Helen; Geisser, Mindy S.; Ryan, Andrew D.; Watt, Gavin D. Minnesota Violence Against Nurses Study: A Comparison Of Follow-Up Methods

• **Published Abstracts:**

Gerberich, Susan G.; Church, Timothy R.; McGovern, Patricia M.; Hansen, Helen; Nachreiner, Nancy M.; Geisser, Mindy; Watt, Gavin, Ryan, Andrew. Risk Factors for Work-Related Violence: Minnesota Nurses' Study, American Journal of Epidemiology 153(11):650, 2001.

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MINNESOTA NURSES' SURVEY Part II

Confidentiality - The information that you provide will be kept strictly confidential and no information that could personally identify you or the facility in which you work(ed) will ever be used. Only investigators at the University of Minnesota will ever have access to this information. If there is any question you do not wish to answer, please mark an X on the question number, and continue to the next question.

Drawing - We are providing treasury bonds valued at \$100 each to 100 randomly selected individuals. You are not required to complete the questionnaire to be eligible for this drawing; however, you do need to check yes or no below, and return this survey in the envelope provided.

1 Yes, include me in the treasury bond drawing 2 No, do not include me in the treasury bond drawing

The questions in this survey will ask you about the months prior to «assltmth». Please verify your work status.

1. Did you work in a nursing position in Minnesota, for any amount of time, prior to «assltmth»? Please check one.

- 1 Yes —————> Proceed to question 2
 2 No —————> Stop here, and return this survey in the enclosed envelope.

The following definitions are provided to help you respond to the questions below.

Work-related includes any activities associated with your job or events that occur in your work environment; work-related travel should be included.

Work-related violence is defined as the intentional use of physical force or emotional abuse, against an employee, that results in physical or emotional injury and consequences. This includes *physical assault, threat, sexual harassment, and verbal abuse.*

- **Physical assault** occurs when you are hit, slapped, kicked, pushed, choked, grabbed, sexually assaulted, or otherwise subjected to physical contact intended to injure or harm you.
- A **threat** occurs when someone uses words, gestures, or actions with the intent of intimidating, frightening, or harming you (physically or otherwise).
- **Sexual harassment** occurs when you experience any type of unwelcome sexual behavior (words or actions) that creates a hostile work environment.
- **Verbal abuse** occurs when another person yells or swears at you, calls you names, or uses other words intended to control or hurt you.

2. Prior to «assltmth», how often were you the target of the following? Check only one for each of the following.

- a. **Work-related physical assault?**
 1 Never 3 4-10 times
 2 1-3 times 4 More than 10 times
- b. **Physical assault not related to work?**
 1 Never 3 4-10 times
 2 1-3 times 4 More than 10 times
- c. **Work-related threat?**
 1 Never 3 4-10 times
 2 1-3 times 4 More than 10 times
- d. **Threat not related to work?**
 1 Never 3 4-10 times
 2 1-3 times 4 More than 10 times
- e. **Work-related sexual harassment?**
 1 Never 3 4-10 times
 2 1-3 times 4 More than 10 times
- f. **Sexual harassment not related to work?**
 1 Never 3 4-10 times
 2 1-3 times 4 More than 10 times

2. (continued) Prior to «assltmth», how often were you the target of the following? Check only one for each of the following.

- g. **Work-related verbal abuse?**
 1 Never 3 4-10 times
 2 1-3 times 4 More than 10 times
- h. **Verbal abuse not related to work?**
 1 Never 3 4-10 times
 2 1-3 times 4 More than 10 times

3. What was your educational status prior to «assltmth»? Check only one answer in each column that applies.

	Nursing	Non-nursing
Diploma	1 <input type="checkbox"/>	1 <input type="checkbox"/>
Associate Degree	2 <input type="checkbox"/>	2 <input type="checkbox"/>
Bachelors Degree	3 <input type="checkbox"/>	3 <input type="checkbox"/>
Masters Degree	4 <input type="checkbox"/>	4 <input type="checkbox"/>
Doctorate Degree	5 <input type="checkbox"/>	5 <input type="checkbox"/>

4. Prior to «assltmth», how many years had you worked as a licensed nurse?

R.N. License _____ Years
 L.P.N. License _____ Years

APPENDIX C
VALIDITY STUDIES

Employer Validity Study: Cover Letter

Employer Validity Study: Survey

Health Care Validity Study: Cover Letter

Health Care Validity Study: Survey

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School of Public Health

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612-626-0900
Fax: 612-626-0650

«DateOnDoc»

«FNAME» «MiddleI» «LNAME» ERV.«NursesMNSID»
«ADDRESS1»,«ADDRESS2»
«CITY», «STATE» «ZIPCODE»

Dear «Title» «LNAME»:

Thank you for your participation with the Minnesota Nurses Study! At this time, we are randomly contacting nurses to find out about the places where Minnesota nurses have worked.

We are enclosing a form for you to list the name and address of your employer during «prevmnth». We would like to send the employer a one-page form to fill out describing the type of facility in which you worked. For your information, a copy of the letter and form that would be sent to the employer is enclosed. *You will never be identified to the employer in any way, as all of our data are confidential.*

We would like to remind you that one hundred randomly drawn individuals will each receive a \$100 treasury bond; chances of winning are at least 1 in 128. You will be eligible whether or not you participate in this part of the study. We will notify the individuals who are awarded the bonds at the completion of the study.

Participation in this study is voluntary. Refusal to participate will not affect your future relations with any of the institutions involved in this effort. We assure you that your participation and all information collected in this study will remain completely confidential and will be reported only in aggregate form. In any published reports, there will be no information identifying any individual or associated institution.

If you have any questions, please contact Dr. Susan Gerberich or Nancy Nachreiner at 612-625-4418 or toll free 1-877-NURSES U (1-877-687-7378). We look forward to your potential involvement in this important study and appreciate your completing and returning the enclosed form as soon as possible.

Sincerely,



Susan Goodwin Gerberich, Ph.D., R.N.
Principal Investigator



Nancy Nachreiner, M.P.H., R.N.
Research Coordinator

**Collaborating
Organizations:**

Regional Injury
Prevention
Research Center.
University of
Minnesota

Center for
Violence
Prevention and
Control.
University of
Minnesota

Minnesota
Hospital and
Healthcare
Partnership

Minnesota
Nurses'
Association

Minnesota
Licensed
Practical Nurses'
Association

Please complete the following information for the main employing institution for which you worked the most time during «prevmnth», and return it in the enclosed envelope:

Facility/Institution/Agency Name: _____
Address: _____ _____
City: _____
State: _____
Zip Code: _____

Thank you for your participation!

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Minneapolis, MN 55455
612-626-0900
Fax: 612-626-0650

«DateOnDoc»

«ContactTitle» «ContactFName» «ContactLName»
«Facility»
«ADDRESS1» «ADDRESS2»
«CITY», «STATE» «ZIPCODE»

«Dear»:

**Collaborating
Organizations:**

Regional Injury
Prevention
Research Center,
University of
Minnesota

Center for
Violence
Prevention and
Control,
University of
Minnesota

Minnesota
Hospital and
Healthcare
Partnership

Minnesota
Nurses'
Association

Minnesota
Licensed
Practical Nurses'
Association

As you are probably aware, health care facilities personnel have been identified as being at risk for violence. We invite your participation in a study of Minnesota health care facilities and relevant violence policies. Information from this effort will be used to understand more about the current work environment in Minnesota health care facilities. Enclosed please find a one-page survey to complete regarding your facility. We would appreciate your returning this in the enclosed, stamped envelope.

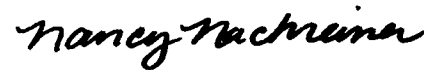
Participation in this study is voluntary. Refusal to participate will not affect your future relations with any of the institutions involved in this effort. We assure you that your participation and all information collected in this study will remain completely confidential and will be reported only in aggregate form. In any published reports, there will be no information identifying any individual or associated institution.

If you have any questions, please contact Dr. Susan Gerberich or Nancy Nachreiner at 612-625-4418 or toll free 1-877-687-7378. We look forward to your potential involvement in this important study and appreciate your completing and returning the survey as soon as possible.

Sincerely,



Susan Goodwin Gerberich, Ph.D., R.N.
Principal Investigator



Nancy Nachreiner, M.P.H., R.N.
Research Coordinator

Health Care Facilities and Violence-Related Policies

Please check one answer for each of the following.

1. During «prevmnth», which answer would best describe this type of facility/institution/agency?

- | | |
|---|---|
| 1 <input type="checkbox"/> Hospital – inpatient | 8 <input type="checkbox"/> Rehabilitation facility |
| 2 <input type="checkbox"/> Hospital – outpatient | 9 <input type="checkbox"/> School/College/University |
| 3 <input type="checkbox"/> Non-hospital outpatient facility | 10 <input type="checkbox"/> Independent practice/Consulting |
| 4 <input type="checkbox"/> Clinic/Healthcare provider office | 11 <input type="checkbox"/> Insurance/Utilization Review |
| 5 <input type="checkbox"/> Nursing home/Long term care facility | 12 <input type="checkbox"/> Industry |
| 6 <input type="checkbox"/> Home health agency | 13 <input type="checkbox"/> Other (specify): _____ |
| 7 <input type="checkbox"/> Public health agency | |

2. During «prevmnth», what was the ownership of this facility/ institution/agency?

- | | |
|--------------------------------------|---|
| 1 <input type="checkbox"/> Private | 4 <input type="checkbox"/> State |
| 2 <input type="checkbox"/> City/Town | 5 <input type="checkbox"/> Federal/VA hospital/Military |
| 3 <input type="checkbox"/> County | 8 <input type="checkbox"/> Unsure |

3. During «prevmnth», what was the location of this facility/ institution/agency?

- | | |
|----------------------------------|---|
| 1 <input type="checkbox"/> Rural | 3 <input type="checkbox"/> Suburban |
| 2 <input type="checkbox"/> Urban | 4 <input type="checkbox"/> Other (specify): _____ |

4. During «prevmnth», how many total beds did this facility/ institution/agency have?

- | | |
|--|--|
| 1 <input type="checkbox"/> Less than 20 beds | 6 <input type="checkbox"/> 300-499 beds |
| 2 <input type="checkbox"/> 20-49 beds | 7 <input type="checkbox"/> More than 500 beds |
| 3 <input type="checkbox"/> 50-99 beds | 8 <input type="checkbox"/> Not applicable
(facility does not have beds) |
| 4 <input type="checkbox"/> 100-199 beds | 9 <input type="checkbox"/> Unsure |
| 5 <input type="checkbox"/> 200-299 beds | |

5. Prior to «assltmth», did your facility/institution/agency have a written policy on violence that addressed any of the following...

- a. ... "zero tolerance" for violence, that is, violence was not tolerated at any level?
1 Yes 2 No 8 Unsure
- b. ... types of violent behaviors (physical assault, threat, sexual harassment, or verbal abuse) that were prohibited?
1 Yes 2 No 8 Unsure
- c. ... consequences for those who used violence at work?
1 Yes 2 No 8 Unsure
- d. ... how to report if someone sexually harassed, threatened, or verbally abused you?
1 Yes 2 No 8 Unsure
- e. ... how to report if someone physically assaulted you?
1 Yes 2 No 8 Unsure
- f. ... assurance that reporting of violent incidents would be kept confidential?
1 Yes 2 No 8 Unsure
- g. ... requirements for violence prevention training of staff members?
1 Yes 2 No 8 Unsure

(Signature)

(Title)

(Date)

***Thank you for your response!
Please return this form in the enclosed envelope.***

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«DateOnDoc»

«Clinic»

«ADDRESS1», «ADDRESS2»

«CITY», «STATE» «ZIPCODE»

Collaborating Organizations:

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University of
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Minnesota
Nurses'
Association

Minnesota
Licensed
Practical Nurses'
Association

Request for Medical Records Enclosed

Patient: «FNAME» «MNAME» «LNAME»
Birthdate: «DOB»

Dear Medical Records Administrator:

We are currently conducting a study regarding work-related violence against Minnesota nurses. This study is a collaborative effort between the University of Minnesota School of Public Health and the other organizations listed in the sidebar. «FNAME» «LNAME» has identified you as a health care provider «heshe» may have seen between «Firstdate» and «Lastdate», and has signed a release of information to allow us to contact you regarding «hisher» injury(ies) and treatment. A copy of this signed release of information is included in this packet.

We are interested in verifying any health care contact «FNAME» «LNAME» may have had for any work-related assault injuries between «Firstdate» and «Lastdate». Enclosed, is a form to be completed for that period. This information will be kept strictly confidential, and will never be identified with you, your patient, or the employer in any way. Data will be reported only in aggregate form; in any published reports, there will be no information identifying any individual or associated institution. Participation in this study is voluntary. Refusal to participate will not affect your future relations with any of the institutions involved in this effort.

If you have any questions, please contact Dr. Susan Gerberich or Nancy Nachreiner at 612-625-4418 or toll free 1-877-NURSES U (1-877-687-7378). We look forward to your potential involvement in this important study and appreciate your completing and returning this form as soon as possible.

Sincerely,



Susan Goodwin Gerberich, Ph.D., R.N.
Principal Investigator



Nancy Nachreiner, M.P.H., R.N.
Research Coordinator



«NursesMNSID»

Authorization to Obtain Medical Records

I authorize the release of information from my medical records to the researchers, at the University of Minnesota, for a study of work-related assault injuries. *(This information should be provided for the period between «Firstdate» and «Lastdate» for any health care providers you might have consulted or visited):*

Name of Provider/Clinic: _____

Type of Facility/Agency: (Emergency Department, Urgent Care, Occupational Health Department, Hospital, Family Practice Clinic, etc.) *(Please circle or write in your answer.)* _____

Address: _____

City: _____ State: _____ Zip Code: _____

Type of Provider: (Physician, Chiropractor, Psychiatrist/Psychologist/Therapist, Nurse/N.P./Nurse Clinician, P.A., Dentist, Physical or Occupational Therapist, etc.) *(Please circle or write in your answer.)* _____

Telephone: (____) _____

I understand that participation with this part of the study is voluntary, and that if I refuse to participate, it will not affect my relationship with the University of Minnesota or any institutions involved in this effort. I understand that I may revoke this consent in writing at any time, and that this consent will automatically expire in one year. A photocopy or fax of this authorization will be treated in the same manner as the original.

(Please sign your name here)

(Today's date)

«FNAME» «MNAME» «LNAME»

Birthdate: «DOB»

(Please list any other names you may have used under which your medical records may be filed, i.e. maiden name, nick name, etc.)

Please return this form in the enclosed stamped envelope.

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School of Public Health

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420 Delaware Street S.E.
Minneapolis, MN 55455
612-626-0900
Fax: 612-626-0650

«DateOnDoc»

«FNAME» «MiddleI» «LNAME» HCPV.«NursesMNSID»
«ADDRESS1»,«ADDRESS2»
«CITY», «STATE» «ZIPCODE»

Dear «Title» «LNAME»:

**Collaborating
Organizations:**

Regional Injury
Prevention
Research Center,
University of
Minnesota

Center for
Violence
Prevention and
Control,
University of
Minnesota

Minnesota
Hospital and
Healthcare
Partnership

Minnesota
Nurses'
Association

Minnesota
Licensed
Practical Nurses'
Association

Thank you for your participation with the Minnesota Nurses Study! At this time, we need to contact health care providers and collect information for persons who *were injured*, as well as a sample of nurses who *were not injured*, to validate reporting. This is important to ensure the overall quality of the data collected in this study.

We are enclosing three forms with this letter. We would like you to list the name(s) and address(es) of any health care provider(s) that you may have seen between «Firstdate» and «Lastdate», and read and sign the consent information. Health care providers include Physicians, Chiropractors, Psychiatrists/Psychologists/Therapists, Nurses/Nurse Practitioners/Nurse Clinicians, Physician's Assistants, Dentists, Physical or Occupational Therapists, etc. We would like to send these health care provider(s) a brief form to complete. For your information, we have enclosed a copy of the letter and form that would be sent to your health care providers. If you have seen more than three providers between «Firstdate» and «Lastdate», please call 1-877-687-7378 (toll free) for additional forms, or feel free to copy the form. Whether or not you received health care between «Firstdate» and «Lastdate», we would appreciate your signing and returning the form.

Any information that is obtained will remain completely confidential. In any reports resulting from this study, no individuals or identifying information will ever be identified; only total information for the participants, as a group, will be presented.


We would like to remind you that one hundred randomly drawn individuals will each receive a \$100 treasury bond; chances of winning are at least 1 in 128. You will be eligible whether or not you participate in this part of the study. We will notify the individuals who are awarded the bonds at the completion of the study.

Participation in this study is voluntary. Refusal to participate will not affect your future relations with any of the institutions involved in this effort. If you have any questions, please contact Dr. Susan Gerberich or Nancy Nachreiner at 612-625-4418 or toll free 1-877-NURSES U (1-877-687-7378). We look forward to your potential involvement in this important study and appreciate your completing and returning these forms as soon as possible.

Sincerely,



Susan Goodwin Gerberich, Ph.D., R.N.
Principal Investigator



Nancy Nachreiner, M.P.H., R.N.
Research Coordinator

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TABLES

TABLE 1
COMPREHENSIVE PHASE PARTICIPANT CHARACTERISTICS
RISK FACTORS FOR VIOLENCE AMONG NURSES

	Number	Percent
Gender		
Female	3587	96.0
Male	151	4.0
Age (years)		
Less than 30	195	5.2
30 to <40	724	19.4
40 to <50	1438	38.5
50 to <60	983	26.3
60 or older	398	10.7
License Type		
RN	2788	74.6
LPN	950	25.4
Nursing Education		
Diploma	1441	38.6
Associate Degree	1058	28.3
Bachelor's Degree	979	26.2
Master's Degree	216	5.8
Doctorate Degree	5	0.1
Missing (Refused)	35(4)	0.9(0.1)
Primary Facility Worked		
Hospital in-patient	1454	38.9
Nursing home/long term care facility	658	17.6
Clinic/health care provider office	496	13.3
Home health agency	242	6.5
Hospital out-patient	208	5.6
Split time equally between two or more facilities	167	4.5
School/college/university	149	4.0
Public health agency	103	2.8
Insurance/utilization review	70	1.9
Non-hospital out-patient	64	1.7
Rehabilitation facility	30	0.8
Independent practice/consulting	25	0.7
Industry	24	0.6
Other	48	1.3

TABLE 1 (CONTINUED)
COMPREHENSIVE PHASE PARTICIPANT CHARACTERISTICS
RISK FACTORS FOR VIOLENCE AMONG NURSES

Ownership of Facility	Number	Percent
Private	2508	67.1
City/Town	320	8.6
County	243	6.5
State	167	4.5
Split time	95	2.5
Federal/VA/Military	67	1.8
Unsure	321	8.6
Missing	17	0.5
Primary Department/Unit/Area		
Medical/surgical	1224	32.7
Public health/home care	347	9.3
Family practice	289	7.7
Psychiatric/behavioral	264	7.1
Operating/recovery room	247	6.6
Intensive care unit	248	6.6
Split time	242	6.5
Obstetrics/gynecology	200	5.4
Education/research	136	3.6
Emergency	115	3.1
School health service	101	2.7
Occupational health	37	1.0
Other	282	7.5
Missing (Refused)	4(2)	0.1(0.1)
Primary Patient Population		
Adult	1593	42.6
Geriatric	875	23.4
Split time	871	23.3
Pediatric	232	6.2
Neonatal	76	2.0
Adolescent	73	2.0
Missing (Refused)	15(3)	0.4(0.1)

TABLE 1 (CONTINUED)
COMPREHENSIVE PHASE PARTICIPANT CHARACTERISTICS
RISK FACTORS FOR VIOLENCE AMONG NURSES

Primary Professional Activity	Number	Percent
Provided patient care	2318	62.0
Split time	500	13.4
Supervised patient care	237	6.3
Administration	199	5.3
Case management	163	4.4
Teaching	128	3.4
Telephone triage/health information	98	2.6
Insurance/utilization review	43	1.2
Research	31	0.8
Other	10	0.3
Missing	11	0.3

**TABLE 2
WORK-RELATED VIOLENCE RATES
RISK FACTORS FOR VIOLENCE AMONG NURSES**

Physical Assault Rates Per 100 Persons Per Year

	Unadjusted Rate	Adjusted Rate* and 95% CI	
Total (519/3999)	13.0	13.2	(12.2, 14.3)
RN (352/2975)	11.8	12.0	(10.9, 13.3)
LPN (167/1024)	16.3	16.4	(14.2, 18.7)

Non-Physical Violence† Rates Per 100 Persons Per Year

	Unadjusted Rate	Adjusted Rate* and 95% CI	
Total (1536/3999)	38.4	38.8	(37.4, 40.4)
RN (1134/2975)	38.1	38.5	(36.7, 40.3)
LPN (402/1024)	39.3	39.7	(36.8, 42.9)

* Adjusted for age, gender, license type, and home address (metropolitan area versus non-metropolitan area)

† Non-physical violence includes threat, sexual harassment, and verbal abuse.

TABLE 3
CHARACTERISTICS OF PERPETRATORS ASSOCIATED WITH
PHYSICAL ASSAULT AND NON-PHYSICAL VIOLENCE
RISK FACTORS FOR VIOLENCE AMONG NURSES

Characteristics of Perpetrators	Physical (Specific Event)		Physical (Ongoing Event)		Non-Physical*	
	N	%	N	%	N	%
†Professional Relation with Perpetrator						
Patient/client	636	96.8	49	90.7	1467	67.2
Supervisor	6	0.9	0	0	226	10.4
Other employee	4	0.6	1	1.9	238	10.9
Doctor	3	0.5	0	0	279	12.8
Patient's visitor	3	0.5	0	0	240	11.0
Subordinate	1	0.2	0	0	136	6.2
Other visitor	1	0.2	0	0	29	1.3
Unsure	1	0.2	0	0	2	0.1
No professional relationship	0	0	0	0	26	1.2
Other	0	0	0	0	20	0.9
Missing (Refused)	3	0.5	4	7.4	20 (1)	0.9 (0.1)
†Perceived Impairment Status of Perpetrator						
Yes, Disease/Illness	525	79.9	47	87.0	898	41.2
Yes, Prescribed Medication	121	18.4	12	22.2	265	12.1
Yes, Drugs/Alcohol	56	8.5	4	7.4	341	15.6
Not Impaired	56	8.5	4	7.4	1020	46.8
Unsure	11	1.7	1	1.9	247	11.3
Missing	3	0.5	4	7.4	26	1.2
†Perpetrator Gender						
Male	386	58.8	30	55.6	1594	73.1
Female	266	40.5	27	50.0	1105	50.6
Unsure	1	0.2	5	9.3	24	1.1
Missing (Refused)	7	1.1	5	9.3	28 (1)	1.3 (0.1)
†Perceived age of perpetrator						
<13 years	18	2.7	2	3.7	25	1.2
13-17 years	17	2.6	4	7.4	97	4.5
18-24 years	26	4.0	1	1.9	262	12.0
25-34 years	43	6.5	2	3.7	550	25.2
35-65 years	120	18.3	7	13.0	1186	54.4
66 or older	423	64.4	38	70.4	673	30.8
Unsure	7	1.1	1	1.9	65	3.0
Missing	4	0.6	5	9.3	20	0.9

*Non-physical violence category combines threats, sexual harassment and verbal abuse categories.

†Question denotes "check all that apply;" therefore, responses may total >100%

TABLE 4
CONSEQUENCES AND CHARACTERISTICS
OF PHYSICAL ASSAULT AND NON-PHYSICAL VIOLENCE
RISK FACTORS FOR VIOLENCE AMONG NURSES

Consequences and Characteristics of Physical and Non-Physical Violence	Physical (Specific Event)		Physical (Ongoing Event)		Non-Physical Violence*	
	N	%	N	%	N	%
†Symptoms/Feelings Following Assault						
Frustration	301	45.8	31	57.4	1324	60.7
Anger	215	32.7	18	33.3	1309	60.0
Fear/Anxiety/Stress	149	22.7	18	33.3	866	39.7
Irritability	87	13.2	6	11.1	587	26.9
Fatigue	59	9.0	12	22.2	440	20.2
Sadness	47	7.2	6	11.1	456	20.9
Headaches	17	2.6	4	7.4	216	9.9
Difficulty Concentrating	17	2.6	2	3.7	340	15.6
Difficulty Sleeping	15	2.3	3	5.6	302	13.8
Shame/Low Self-Esteem	14	2.1	1	1.9	310	14.2
Depression	12	1.8	4	7.4	317	14.5
Flashbacks	4	0.6	2	3.7	64	2.9
Nightmares	1	0.2	1	1.9	78	3.6
Hallucinations	0	0	1	1.9	9	0.4
Other	11	1.7	1	1.9	52	2.4
None	222	33.8	13	24.1	266	12.2
Missing	2	0.3	2	3.7	29	1.3
Persistent Problems Resulting from the Event?						
No	597	90.9	47	87.0	1880	86.2
Yes	56	8.5	4	7.4	274	12.6
Missing (Refused)	4	0.6	3	5.6	25(3)	1.2(0.1)
†Work Changes as a Result of the Event						
No Changes	592	90.1	50	92.6	1716	78.6
Restrictions/Modified Work	42	6.4	0	0	195	8.9
Quit Job	7	1.1	1	1.9	128	5.9
Voluntary Transfer	7	1.1	1	1.9	76	3.5
Leave of Absence	6	0.9	0	0	17	0.8
Involuntary Transfer	3	0.5	0	0	13	0.6
Other	5	0.8	0	0	46	2.1
Missing (Refused)	1	0.2	2	3.7	26(1)	1.2(0.1)

*Non-physical violence category combines threats, sexual harassment and verbal abuse categories.

†Question denotes "check all that apply;" therefore, responses may total >100%

TABLE 5
CASE-CONTROL PARTICIPANT DEMOGRAPHICS AND EXPOSURES
RISK FACTORS FOR VIOLENCE AMONG NURSES

DEMOGRAPHICS/EXPOSURES	CASES Number	%	CONTROLS Number	%
TOTAL	310		946	
Gender				
Female	293	94.5	910	96.2
Male	17	5.5	36	3.8
Age				
Less than 30	22	7.1	54	5.7
30 to < 40	60	19.4	134	14.2
40 to < 50	121	39.0	372	39.3
50 to < 60	79	25.5	288	30.4
60 or older	28	9.0	98	10.4
Practice Type				
RN	213	68.7	701	74.1
LPN	97	31.3	245	25.9
Nursing Education				
Diploma	120	38.7	361	38.2
Associate Degree	118	38.1	259	27.4
Bachelor's Degree	66	21.3	253	26.7
Master's Degree	4	1.3	58	6.1
Doctorate Degree	0	0.0	1	0.1
Missing	2	0.7	14	1.5
Type of Facility				
Nursing home/long term care facility	139	44.8	150	15.9
Hospital in-patient	131	42.3	384	40.6
Clinic/health care provider office	9	2.9	119	12.6
Hospital out-patient	8	2.6	62	6.6
Split time	5	1.6	22	2.3
Rehabilitation facility	4	1.3	10	1.1
Home health agency	3	1.0	65	6.9
Non-hospital out-patient	3	1.0	21	2.2
School/college/university	3	1.0	37	3.9
Public health agency	0	0.0	33	3.5
Independent practice/consulting	0	0.0	3	0.3
Insurance/utilization review	0	0.0	20	2.1
Industry	0	0.0	7	0.7
Other	5	1.6	12	1.3
Missing	0	0.0	1	0.1

TABLE 5 (CONTINUED)
CASE-CONTROL PARTICIPANT DEMOGRAPHICS AND EXPOSURES
RISK FACTORS FOR VIOLENCE AMONG NURSES

Department/Unit/Area	CASES Number	%	CONTROLS Number	%
Long-term/assisted care	123	39.7	145	15.3
Medical/surgical	66	21.3	217	22.9
Psychiatric/behavioral	34	11.0	57	6.0
Intensive care unit	27	8.7	65	6.9
Split-time	21	6.8	61	6.4
Emergency	12	3.9	24	2.5
Family practice	8	2.6	64	6.8
Operating/recovery	6	1.9	65	6.9
Obstetrics/gynecology	5	1.6	50	5.3
Public health/home care	3	1.0	79	8.4
School health service	3	1.0	26	2.8
Occupational health	0	0.0	10	1.1
Education/research	0	0.0	23	2.4
Other	2	0.7	58	6.1
Missing/Refused	0	0.0	2	0.2
Primary Patient Population				
Geriatric	144	46.5	206	21.8
Adult	110	35.5	416	44.0
Split time	43	13.9	191	20.2
Pediatric	8	2.6	72	7.6
Adolescent	5	1.6	29	3.1
Neonatal	0	0.0	27	2.9
Missing/Refused	0	0.0	5	0.5
Average Patient Length of Stay				
<1 day	18	6.3	176	23.3
1-<4 days	41	14.3	137	18.1
4 days to <1 week	42	14.7	100	13.2
1 week to <2 weeks	17	6.0	40	5.3
2 weeks to <3 weeks	5	1.8	16	2.1
3 weeks to <1 month	8	2.8	18	2.4
1 month or more	127	44.4	194	25.7
Unsure	26	9.1	70	9.3
Missing/Refused	2	0.7	5	0.6

TABLE 5 (CONTINUED)
CASE-CONTROL PARTICIPANT DEMOGRAPHICS AND EXPOSURES
RISK FACTORS FOR VIOLENCE AMONG NURSES

Primary Professional Activity	CASES Number	%	CONTROLS Number	%
Provided patient care	210	67.7	588	62.2
Supervised patient care	49	15.8	72	7.6
Split time	40	12.9	110	11.6
Case management	5	1.6	36	3.8
Teaching	3	1.0	32	3.4
Administration	2	0.7	57	6.0
Telephone triage/health information	1	0.3	20	2.1
Research	0	0.0	7	0.7
Insurance/utilization review	0	0.0	20	2.1
Other	0	0.0	3	0.3
Missing	0	0.0	1	0.1

FIGURES

FIGURE 1
MINNESOTA NURSES' STUDY: RISK FACTORS FOR WORK-RELATED VIOLENCE
CONCEPTUAL MODEL FOR THE
OCCURRENCE OF WORK-RELATED
ASSAULT INJURY EVENTS

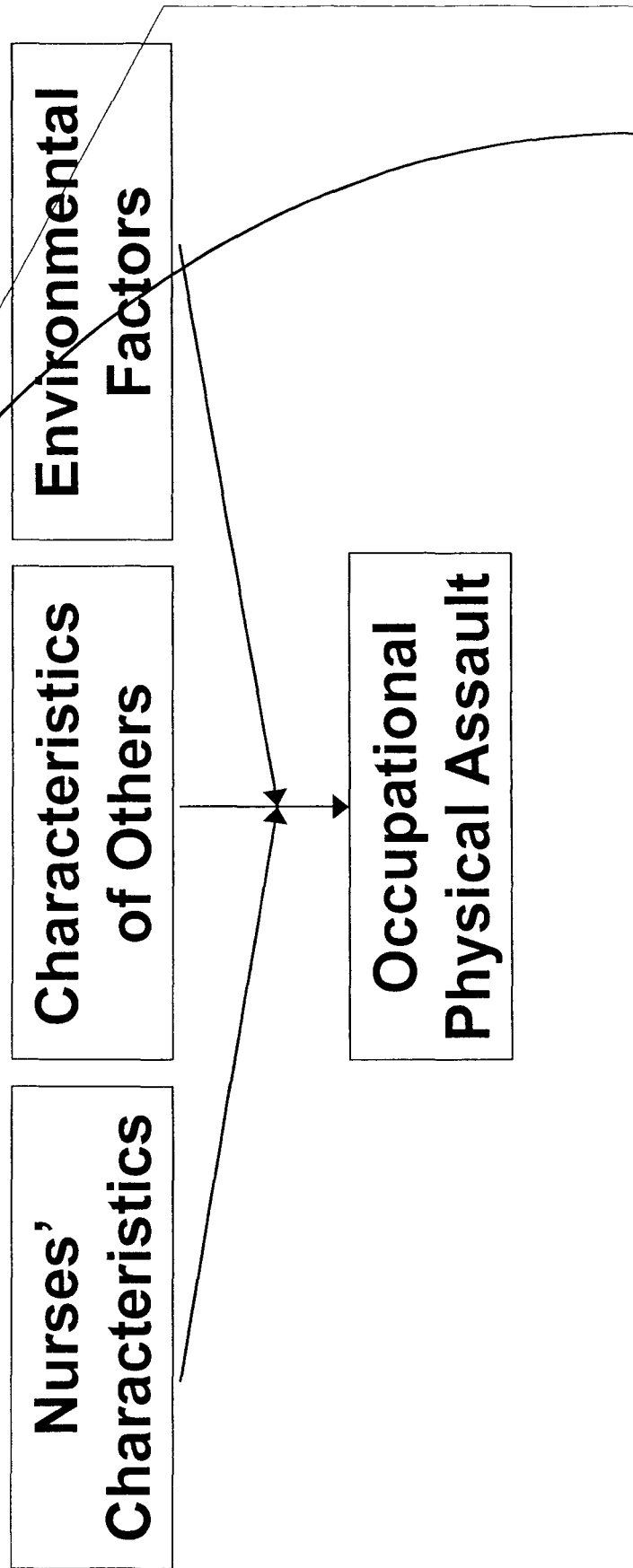


FIGURE 2 CONCEPTUAL MODEL

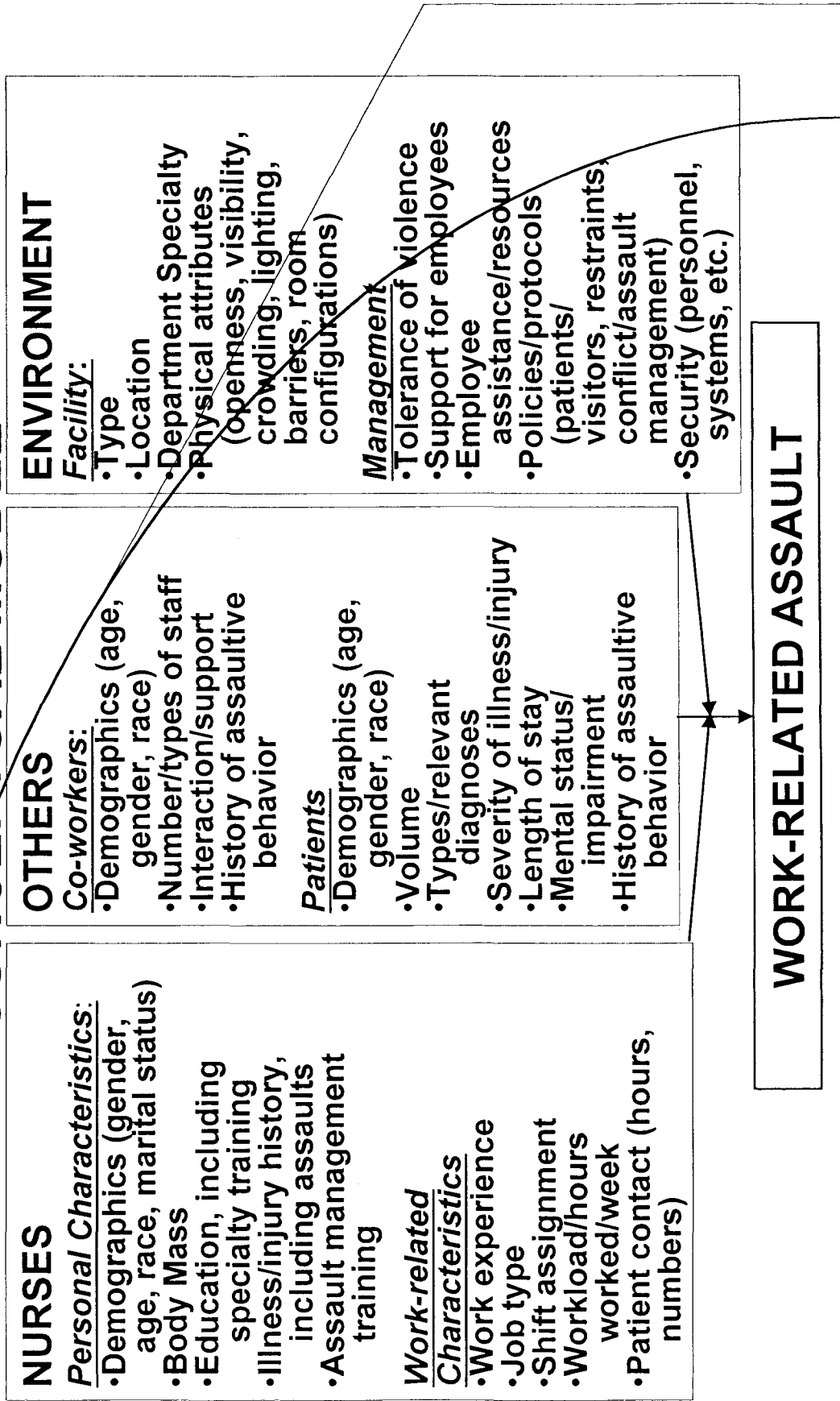
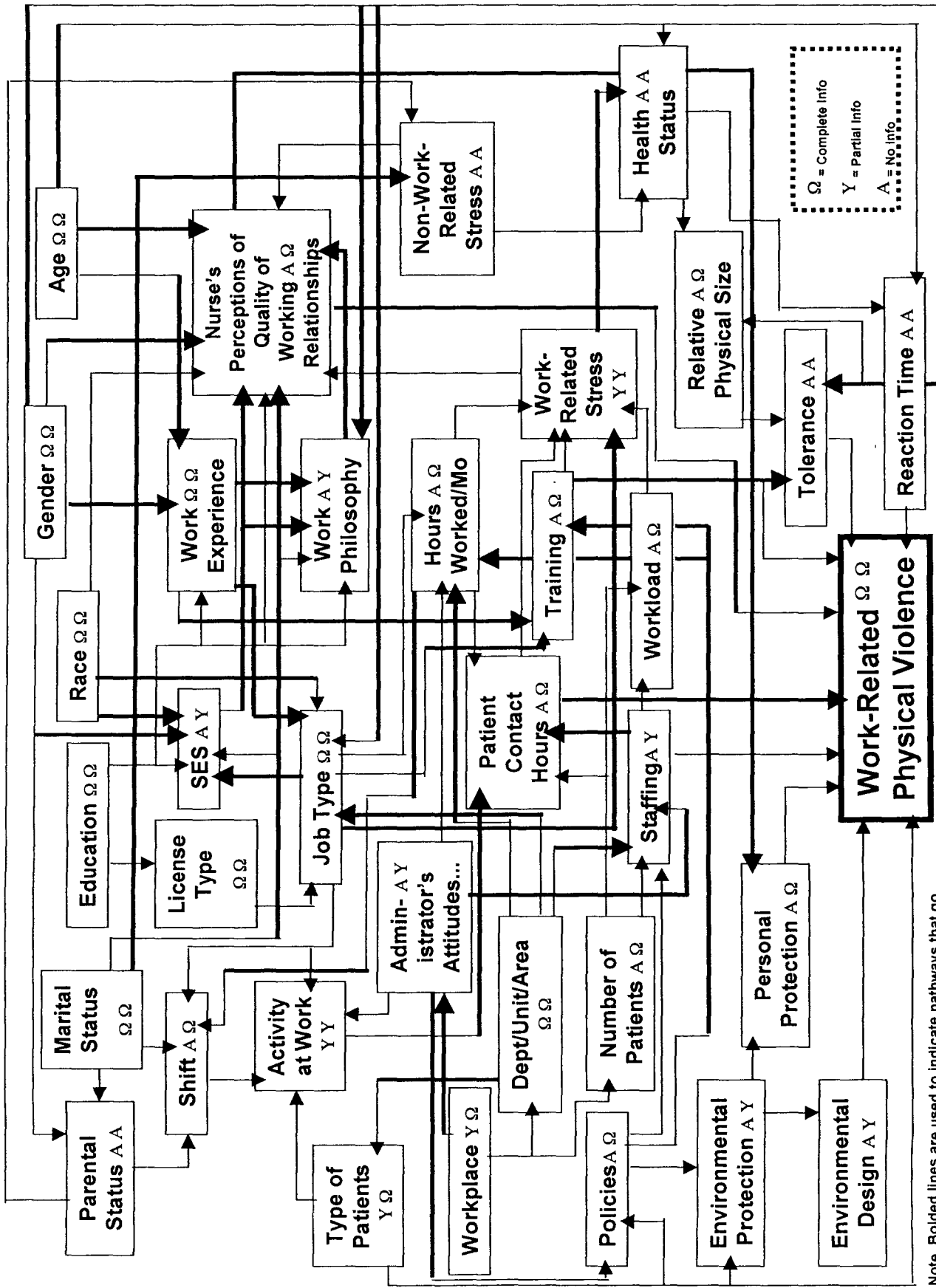


FIGURE 3 CAUSAL MODEL



Final Model 7/31/01
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Based on Comprehensive Survey, Case-Control Study

EXPLANATORY TABLE FOR FIGURE 3
Variables Associated With Exposures of Interest

Variable Name	Variable Definition	Corresponding Case-Control Question(s)	Available on License List?	Corresponding Comprehensive Question(s)
Activity at Work	Role of nurse	Q6: Primary professional activity		Q10: Primary professional activity
Administrator's Attitude	Not measured directly: overall attitude of administration/ supervisor regarding violence, safety, etc.	Q19: Supervisor concern/respect; Q24A and 24B: Administrator's expectations/actions regarding violence		
Age	Age		Yes	Q68: Date of birth; Q2: Today's date
Department/Unit/Area	Unit within the overall organization	Q8: Department/Unit/Area		Q7: Department/Unit/Area ^a
Education	Highest level of education	Q43: Education level nursing and non-nursing		Q66: Education level nursing and non-nursing
Environmental Design	Protective barriers for nursing station/office, well-placed furniture, walls that do not block escape and rescue, good lighting, etc.	Q21: Lighting; Q22: Easily accessible exits; Q23: Physical barriers blocking vision		
Environmental Protection	Equipment/measures in place specifically to prevent violence	Q20A: Video monitor, Q20B: Metal Detection Device; Q20C: Security Alarm/Panic button; Q20D: Controlled access to work area; Q20G: Security personnel; Q20H: Escort/bodyguard; Q28: Restraint use (**Note: may compare if provided by employer =1; rest = 0 for Q20)		
Gender	Gender		Yes	Q67: Gender

Health Status	Broad category of factors influencing the nurse's mental/physical health status; substance use/abuse			
Hours Worked	Exposure time for month/year	Q7: Hours/weeks worked in specific month		
License Type	RN or LPN		Yes	
Marital Status	Marital status			Q70: Marital status
Non-Work Related Stress	Non-Work Related Stress	Q35B: Previous non-work related assault; Q36B, D, and F: Previous non-work related non-physical violence		
Number of Patients	Number of patients assigned to a nurse	Q13A: Number of patients/clients		
Parental Status	Parental status			
Patient Contact Hours	Hours spent in direct patient contact	Q13: Patient contact yes/no; Q14: Patient contact hours		
Perceptions of quality of working relationships	Nurse's perception of quality of respect/trust and morale among coworkers	Q17: Coworker respect/trust; Q18: Morale		
Personal Protection	Items carried by the nurse for protection	Q41: Items carried by nurse for protection; Q20E: personal portable alarm; Q20F: Cell phone		
Policies	Written work-related violence policies	Q25A-H: Policy components; Q26: Policy enforcement; Q27: Restraint policies; Q29: Visitor policies; Q30: Visitor policy enforcement		
Race	Race			Q69: Race
Reaction Time	Time needed to react to a stimulus			

Relative Physical Size	Body mass	Q45: Weight; Q46: Height	
SES	Socio-economic status	Q42: Annual household income	
Shift	Time of shift worked (day/evening/night), and length of shift	Q10: Shift worked	
Staffing	Staff available to accomplish necessary tasks	Q11, A, B, C, and D: Other staff working your shift (number of staff, race and gender of staff, number of nursing staff)	
Tolerance	Physical or emotional ability to withstand insult		
Training	Work-related violence training	Q31A-H: Training components; Q32 training frequency; Q33: Training quantity; Q34: Date of most recent training	
Type of Patients	Description of patients cared for by nurse	Q5: Primary population (by age); Q12A and 12B: Types of patients (race, gender); Q13B: Impairment status; Q15: Patient length of stay	Q9: Primary population (by age)
Work Experience	Amount of time worked as a nurse	Q9: Years/months worked in that department; Q44: years worked as a nurse	Q4A and B: months worked as RN or LPN; Q8: Years/months worked in that department; Year graduated as nurse; Q65: Years worked as a nurse
Work Philosophy	How nurses approach their work and treat their patients and colleagues/work ethic		

Work Environment	Overall work environment	Q1: Type of facility; Q2 Ownership; Q3 Location; Q4 Beds in facility; Q12 Patients in work environment; Q37: Witnessing violence by patients; Q38: Made aware of violence by non-patients; Q39: Witness non-patient violence; Q40: Made aware of non-patient violence		Q5: Type of facility; Q6: Ownership
Work-Related Stress	Physical or emotional tension related to one's job	Q16: Work stress; Q24C and D: Coworkers' expectations and actions regarding violence; Q24E and F: Nurse's expectations and actions regarding violence; Q35A: Previous work related assault; Q36A, C, and E: Previous work related non-physical violence		Q62: Is work-related violence a problem in your environment; Q63: Can work-related violence against nurses be prevented?
Work-Related Physical Assault	Work-related physical assault			Q11: Target of assault

APPENDICES

APPENDIX A
PHASE 1 – COMPREHENSIVE STUDY
Phase 1: Comprehensive Study Cover Letter
Phase 1: Comprehensive Study Full Survey
Phase 1: Comprehensive Study Short Survey

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Date

Environmental and Occupational Health

School of Public Health

Box 807 Mayo

420 Delaware Street S.E.
Minneapolis, MN 55455

612-626-0900

Fax: 612-626-0650

Inside address

line 2

line 4

Dear (nurse name):

**Collaborating
Organizations:**

Regional Injury
Prevention
Research Center,
University of
Minnesota

Center for
Violence
Prevention and
Control,
University of
Minnesota

Minnesota
Hospital and
Healthcare
Partnership

Minnesota
Nurses'
Association

Minnesota
Licensed
Practical Nurses'
Association

We invite your participation in a study of work-related violence against Minnesota nurses. You were randomly selected from the current state license lists. Violence is a major problem for all occupations; among nurses, it has been reported that between 82% and 97% of nurses experience at least one assault injury during their nursing career.

The purpose of this study is to assess the magnitude of the problem and identify risk factors for violence against nurses in Minnesota. This study is being conducted by investigators in the Regional Injury Prevention Research Center and the Center for Violence Prevention and Control, in collaboration with the other institutions identified on this letter.

This study involves two surveys. The first survey collects information about work-related violence events that you may have experienced during the past twelve months, and should take no more than 15 minutes of your time. The second survey compares nurses who reported work-related violence events to a random sample of nurses who did not report such incidents during the past twelve months. This survey will take about 20 minutes of your time. By comparing responses of those who experienced such an event to those who did not, specific risk factors that are important to violence prevention efforts in the nursing population can be identified. In order to obtain accurate information, we ask everyone who receives a questionnaire to participate.

One hundred randomly drawn individuals will each receive a \$100 treasury bond; chances of winning are at least 1 in 128. By returning your survey, indicating you would like to be included in the drawing, you will be eligible whether or not you participate in the study. We will notify the individuals who are awarded the bonds at the completion of the data collection for both phases of the study.

Participation in this study is voluntary. Refusal to participate will not affect your future relations with any of the institutions involved in this effort. We assure you that your participation and all information collected in this study will remain completely confidential and will be reported only in aggregate form. In any published reports, there will be no information identifying any individual or associated institution.

If you have any questions, please contact Dr. Susan Gerberich or Nancy Nachreiner at 612-625-2487 or toll free 1-877-NURSES U (1-877-687-7378). We look forward to your potential involvement in this important study and appreciate your completing and returning the survey as soon as possible.

Sincerely,



Susan Goodwin Gerberich, Ph.D., R.N.
Principal Investigator



Nancy Nachreiner, M.P.H., R.N.
Research Coordinator

MINNESOTA NURSES' SURVEY

Confidentiality - The information that you provide will be kept strictly confidential and no information that could personally identify you or the facility in which you work(ed) will ever be used. Only investigators at the University of Minnesota will ever have access to this information. If there is any question you do not wish to answer, please mark an X on the question number, and continue to the next question.

Drawing - We are providing treasury bonds valued at \$100 each to 100 randomly selected individuals. You are not required to complete the questionnaire to be eligible for this drawing; however, you do need to check yes or no below, and return this survey in the envelope provided.

1 Yes, include me in the treasury bond drawing 2 No, do not include me in the treasury bond drawing

1. Are you the person to whom this questionnaire was sent?

1 Yes 2 No →

Please call 1-877-NURSESU (1-877-687-7378) toll free, so that we may clarify the situation.

2. What is today's date? ____/____/____
 month day year

3. Did you work in a nursing position, for any amount of time, in Minnesota, in the 12 months prior to today's date? *The calendar on the last page is for your use as a reference.*

1 Yes 2 No →

Thank you for taking the time to respond. Please stop here and return the questionnaire in the enclosed envelope.

4a. Check off each month in the 12 months prior to today's date that you worked as an RN in Minnesota.

- | | | | | |
|---|--|---------------------------------------|--|---|
| 1 <input type="checkbox"/> August 1998 | 5 <input type="checkbox"/> December 1998 | 9 <input type="checkbox"/> April 1999 | 13 <input type="checkbox"/> August 1999 | 17 <input type="checkbox"/> December 1999 |
| 2 <input type="checkbox"/> September 1998 | 6 <input type="checkbox"/> January 1999 | 10 <input type="checkbox"/> May 1999 | 14 <input type="checkbox"/> September 1999 | 18 <input type="checkbox"/> January 2000 |
| 3 <input type="checkbox"/> October 1998 | 7 <input type="checkbox"/> February 1999 | 11 <input type="checkbox"/> June 1999 | 15 <input type="checkbox"/> October 1999 | 19 <input type="checkbox"/> February 2000 |
| 4 <input type="checkbox"/> November 1998 | 8 <input type="checkbox"/> March 1999 | 12 <input type="checkbox"/> July 1999 | 16 <input type="checkbox"/> November 1999 | 20 <input type="checkbox"/> March 2000 |

4b. Check off each month in the 12 months prior to today's date that you worked as an LPN in Minnesota.

- | | | | | |
|---|--|---------------------------------------|--|---|
| 1 <input type="checkbox"/> August 1998 | 5 <input type="checkbox"/> December 1998 | 9 <input type="checkbox"/> April 1999 | 13 <input type="checkbox"/> August 1999 | 17 <input type="checkbox"/> December 1999 |
| 2 <input type="checkbox"/> September 1998 | 6 <input type="checkbox"/> January 1999 | 10 <input type="checkbox"/> May 1999 | 14 <input type="checkbox"/> September 1999 | 18 <input type="checkbox"/> January 2000 |
| 3 <input type="checkbox"/> October 1998 | 7 <input type="checkbox"/> February 1999 | 11 <input type="checkbox"/> June 1999 | 15 <input type="checkbox"/> October 1999 | 19 <input type="checkbox"/> February 2000 |
| 4 <input type="checkbox"/> November 1998 | 8 <input type="checkbox"/> March 1999 | 12 <input type="checkbox"/> July 1999 | 16 <input type="checkbox"/> November 1999 | 20 <input type="checkbox"/> March 2000 |

5. In what type of facility did you work the most time in the 12 months prior to today's date? *Check one.*

- | | |
|---|---|
| 1 <input type="checkbox"/> Hospital – inpatient | 8 <input type="checkbox"/> Rehabilitation facility |
| 2 <input type="checkbox"/> Hospital – outpatient | 9 <input type="checkbox"/> School/College/University |
| 3 <input type="checkbox"/> Non-hospital outpatient facility | 10 <input type="checkbox"/> Independent practice/Consulting |
| 4 <input type="checkbox"/> Clinic/Healthcare provider office | 11 <input type="checkbox"/> Insurance/Utilization Review |
| 5 <input type="checkbox"/> Nursing home/Long term care facility | 12 <input type="checkbox"/> Industry |
| 6 <input type="checkbox"/> Home health agency | 13 <input type="checkbox"/> I split my time <u>equally</u> between two or more facilities |
| 7 <input type="checkbox"/> Public health agency | 14 <input type="checkbox"/> Other (specify): _____ |

6. What was the ownership of this facility/institution/agency? *Check one.*

- | | | | |
|--------------------------------------|-----------------------------------|--|-----------------------------------|
| 1 <input type="checkbox"/> Private | 3 <input type="checkbox"/> County | 5 <input type="checkbox"/> Federal/VA hospital/Military | 8 <input type="checkbox"/> Unsure |
| 2 <input type="checkbox"/> City/Town | 4 <input type="checkbox"/> State | 6 <input type="checkbox"/> I split my time <u>equally</u> between two or more facilities | |

7. In what type of department/unit/area did you work the most time in the 12 months prior to today's date? *Check one.*

- | | | |
|--|--|--|
| 1 <input type="checkbox"/> Medical/Surgical | 6 <input type="checkbox"/> Emergency | 11 <input type="checkbox"/> Education/Research |
| 2 <input type="checkbox"/> Operating/Recovery Room | 7 <input type="checkbox"/> Public Health/Home Care | 12 <input type="checkbox"/> I split my time <u>equally</u> between 2 or more departments/units/areas |
| 3 <input type="checkbox"/> Intensive care | 8 <input type="checkbox"/> Family Practice | ↳ <i>Skip to question 9.</i> |
| 4 <input type="checkbox"/> Psychiatric/Behavioral | 9 <input type="checkbox"/> Occupational Health | |
| 5 <input type="checkbox"/> Obstetric/Gynecologic | 10 <input type="checkbox"/> School Health Services | 13 <input type="checkbox"/> Other (specify): _____ |

8. What is the total length of time that you worked in this department/unit/area?

_____ year(s) _____ month(s)

9. What was the primary population with which you worked the most time, in the 12 months prior to today's date? Check one.

- 1 Neonatal 3 Adolescent 5 Geriatric
 2 Pediatric 4 Adult 6 I split my time equally between 2 or more populations

10. What was your primary professional activity in the 12 months prior to today's date? Check one.

- 1 Provided patient care 6 Case management
 2 Administration 7 Teaching
 3 Supervised patient care 8 Telephone triage/Health information
 4 Research 9 I split my time equally between two or more activities
 5 Insurance/Utilization review 10 Other (specify): _____

The next section pertains to **work-related violence events**. **Work-related** includes any activities associated with your job or events that occur in your work environment; work-related travel should be included. **Work-related violence** is defined as the intentional use of physical force or emotional abuse, against an employee, that results in physical or emotional injury and consequences. This includes *physical assault, threat, sexual harassment, and verbal abuse*.

Physical assault occurs when you are hit, slapped, kicked, pushed, choked, grabbed, sexually assaulted, or otherwise subjected to physical contact intended to injure or harm you. **Questions 11 through 36** relate to **physical assault** only; questions about threat, sexual harassment, and verbal abuse will follow.

11. Were you the target of a work-related physical assault at any time during the 12 months prior to today's date? Check YES or NO.

- 1 Yes 2 No → Please continue to page 7.

Please provide the following information for each physical assault event that happened to you during the 12 months prior to today's date. The calendar on the last page of the survey is for your use as a reference.

- If you experienced more than one event, it may be easier to first complete questions 12 through 36 for Event 1, and then go back and complete questions 12 through 36 for Event 2, etc.
- If you experienced more than 4 events in the previous 12 months, please provide information for questions 12 through 36 for each event on a separate sheet of paper, or call 1-877-NURSESU (1-877-687-7378) toll free, or 612-625-4418, for additional copies of this survey.

12. Date of physical assault:

Fill in month and year. If unsure of exact month, please give your best estimate.

	<u>Event 1</u>	<u>Event 2</u>	<u>Event 3</u>	<u>Event 4</u>
_____ / _____	_____ / _____	_____ / _____	_____ / _____	_____ / _____
month year	month year	month year	month year	month year

13. When did the event occur? Check one.

- | | | | | |
|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1 Weekday (Monday-Friday) | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| 2 Weekend (Saturday-Sunday) | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 8 Unsure | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> |

14. Time of physical assault:

Circle am or pm if exact time unknown.

- | | | | | |
|----------|----------------------------|----------------------------|----------------------------|----------------------------|
| 8 Unsure | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> |
|----------|----------------------------|----------------------------|----------------------------|----------------------------|

15. What was the location of the physical assault? Check all that apply.

- | | | | | |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 1 Hallway | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| 2 Patient's room | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 3 Reception/Lobby/Waiting area/Lounge | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> |
| 4 Nursing station | 4 <input type="checkbox"/> | 4 <input type="checkbox"/> | 4 <input type="checkbox"/> | 4 <input type="checkbox"/> |
| 5 Procedure or Exam Room/Surgical suite | 5 <input type="checkbox"/> | 5 <input type="checkbox"/> | 5 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| 6 Classroom/Meeting Room | 6 <input type="checkbox"/> | 6 <input type="checkbox"/> | 6 <input type="checkbox"/> | 6 <input type="checkbox"/> |
| 7 Bathroom | 7 <input type="checkbox"/> | 7 <input type="checkbox"/> | 7 <input type="checkbox"/> | 7 <input type="checkbox"/> |
| 8 Stairway | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> |
| 9 Elevator | 9 <input type="checkbox"/> | 9 <input type="checkbox"/> | 9 <input type="checkbox"/> | 9 <input type="checkbox"/> |
| 10 Parking lot/Ramp | 10 <input type="checkbox"/> | 10 <input type="checkbox"/> | 10 <input type="checkbox"/> | 10 <input type="checkbox"/> |
| 11 Office | 11 <input type="checkbox"/> | 11 <input type="checkbox"/> | 11 <input type="checkbox"/> | 11 <input type="checkbox"/> |
| 12 Other | 12 <input type="checkbox"/> | 12 <input type="checkbox"/> | 12 <input type="checkbox"/> | 12 <input type="checkbox"/> |
| Specify | | | | |
| 88 Unsure | 88 <input type="checkbox"/> | 88 <input type="checkbox"/> | 88 <input type="checkbox"/> | 88 <input type="checkbox"/> |

	<u>Event 1</u>	<u>Event 2</u>	<u>Event 3</u>	<u>Event 4</u>
16. Did only one person assault you? Check one.				
1 Yes	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 No (more than one)	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
8 Unsure	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>

17. What was your professional relationship with the person(s) who physically assaulted you?
Check all that apply.

1 Patient/client	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Supervisor	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Subordinate	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Doctor	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Other employee	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 Patient's visitor	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 Other visitor	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 No professional relationship	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 Other	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>
Specify				
88 Unsure	88 <input type="checkbox"/>	88 <input type="checkbox"/>	88 <input type="checkbox"/>	88 <input type="checkbox"/>

18. What was your personal relationship with this person(s)? Check all that apply.

1 Spouse/Significant other, Ex-spouse/ Ex-significant other	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Other relative	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Friend	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Acquaintance	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 No personal relationship	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
8 Unsure	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>

19. What was the gender of the person(s) who physically assaulted you? Check all that apply.

1 Male	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Female	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
8 Unsure	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>

20. What was the race of the person(s) who physically assaulted you? Check all that apply.

1 American Indian/Alaskan Native	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Asian	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Black, not of Hispanic Origin	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Hispanic	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Native Hawaiian/Other Pacific Islander	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 White, not of Hispanic Origin	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 Other	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
Specify				
8 Unsure	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>

21. In what age group was the person(s) who physically assaulted you? Check all that apply.

1 Less than 13 years	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 13-17 years	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 18-24 years	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 25-34 years	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 35-65 years	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 66 and older	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
8 Unsure	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>

22. Was the person(s) who physically assaulted you impaired? Check all that apply.

1 Yes, under the influence of disease/illness	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Yes, under influence of prescribed medication	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Yes, under influence of other drugs or alcohol	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Not impaired	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
8 Unsure	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>

	<u>Event 1</u>	<u>Event 2</u>	<u>Event 3</u>	<u>Event 4</u>
23. What did the person(s) use to physically assault you? Check all that apply.				
1 Hands/Arms	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Feet/Legs	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Teeth	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Genitals	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Gun	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 Knife	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 Bodily Fluids (e.g., spit)	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 Other	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
Specify				
9 Unsure	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>
24. Was the event witnessed? Check one.				
1 Yes	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 No	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
8 Unsure	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
25. What was the type of physical injury? Check all that apply.				
1 Abrasion	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Amputation	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Asphyxia	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Bite	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Bruise/contusion	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 Burn	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 Concussion (Loss of consciousness/awareness)	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 Crushing/mangling	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 Cut/laceration/scratch	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>
10 Fracture/dislocation	10 <input type="checkbox"/>	10 <input type="checkbox"/>	10 <input type="checkbox"/>	10 <input type="checkbox"/>
11 Nerve injury	11 <input type="checkbox"/>	11 <input type="checkbox"/>	11 <input type="checkbox"/>	11 <input type="checkbox"/>
12 Penetration injury including puncture	12 <input type="checkbox"/>	12 <input type="checkbox"/>	12 <input type="checkbox"/>	12 <input type="checkbox"/>
13 Poisoning	13 <input type="checkbox"/>	13 <input type="checkbox"/>	13 <input type="checkbox"/>	13 <input type="checkbox"/>
14 Rupture	14 <input type="checkbox"/>	14 <input type="checkbox"/>	14 <input type="checkbox"/>	14 <input type="checkbox"/>
15 Sexual assault	15 <input type="checkbox"/>	15 <input type="checkbox"/>	15 <input type="checkbox"/>	15 <input type="checkbox"/>
16 Sprain/strain	16 <input type="checkbox"/>	16 <input type="checkbox"/>	16 <input type="checkbox"/>	16 <input type="checkbox"/>
17 Stunned	17 <input type="checkbox"/>	17 <input type="checkbox"/>	17 <input type="checkbox"/>	17 <input type="checkbox"/>
18 Temporary discoloration/slap mark	18 <input type="checkbox"/>	18 <input type="checkbox"/>	18 <input type="checkbox"/>	18 <input type="checkbox"/>
19 Torn ligament	19 <input type="checkbox"/>	19 <input type="checkbox"/>	19 <input type="checkbox"/>	19 <input type="checkbox"/>
20 Other	20 <input type="checkbox"/>	20 <input type="checkbox"/>	20 <input type="checkbox"/>	20 <input type="checkbox"/>
Specify				
21 None	21 <input type="checkbox"/>	21 <input type="checkbox"/>	21 <input type="checkbox"/>	21 <input type="checkbox"/>
26. What body part(s) was (were) injured? Check all that apply.				
1 Head/skull/brain	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Face (forehead, cheek, nose, lip, jaw, ear)	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Eye/eyelid	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Teeth	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Neck (cervical area)	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 Back (muscles, skin)	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 Internal chest	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 External chest (muscles, skin)	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 Spinal cord/spine (vertebrae, sacrum, tailbone, coccyx, disks)	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>
10 Internal abdomen	10 <input type="checkbox"/>	10 <input type="checkbox"/>	10 <input type="checkbox"/>	10 <input type="checkbox"/>
11 External abdomen (muscles, skin)	11 <input type="checkbox"/>	11 <input type="checkbox"/>	11 <input type="checkbox"/>	11 <input type="checkbox"/>
12 Shoulder/collar bone, shoulder blade	12 <input type="checkbox"/>	12 <input type="checkbox"/>	12 <input type="checkbox"/>	12 <input type="checkbox"/>
13 Arm/elbow/wrist	13 <input type="checkbox"/>	13 <input type="checkbox"/>	13 <input type="checkbox"/>	13 <input type="checkbox"/>
14 Hand/fingers/thumb(s)	14 <input type="checkbox"/>	14 <input type="checkbox"/>	14 <input type="checkbox"/>	14 <input type="checkbox"/>
15 Internal hips/pelvis (uterus, ovaries, bladder, rectum)	15 <input type="checkbox"/>	15 <input type="checkbox"/>	15 <input type="checkbox"/>	15 <input type="checkbox"/>
16 External hips/pelvis (muscles, skin)	16 <input type="checkbox"/>	16 <input type="checkbox"/>	16 <input type="checkbox"/>	16 <input type="checkbox"/>
17 Buttocks	17 <input type="checkbox"/>	17 <input type="checkbox"/>	17 <input type="checkbox"/>	17 <input type="checkbox"/>
18 Genitalia	18 <input type="checkbox"/>	18 <input type="checkbox"/>	18 <input type="checkbox"/>	18 <input type="checkbox"/>
19 Leg (thigh, shin, calf, knee, ankle)	19 <input type="checkbox"/>	19 <input type="checkbox"/>	19 <input type="checkbox"/>	19 <input type="checkbox"/>
20 Foot/heel, toes	20 <input type="checkbox"/>	20 <input type="checkbox"/>	20 <input type="checkbox"/>	20 <input type="checkbox"/>
21 General systems	21 <input type="checkbox"/>	21 <input type="checkbox"/>	21 <input type="checkbox"/>	21 <input type="checkbox"/>
22 Other	22 <input type="checkbox"/>	22 <input type="checkbox"/>	22 <input type="checkbox"/>	22 <input type="checkbox"/>
Specify				
23 None	23 <input type="checkbox"/>	23 <input type="checkbox"/>	23 <input type="checkbox"/>	23 <input type="checkbox"/>

Event 1 Event 2 Event 3 Event 4

27. As a result of the physical assault, what types of symptoms/feelings have you experienced? Check all that apply.

1 Anger	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Depression	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Fatigue	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Fear/anxiety/stress	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Frustration	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 Sadness	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 Shame/Low self-esteem	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 Headaches	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 Difficulty sleeping	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>
10 Nightmares	10 <input type="checkbox"/>	10 <input type="checkbox"/>	10 <input type="checkbox"/>	10 <input type="checkbox"/>
11 Hallucinations	11 <input type="checkbox"/>	11 <input type="checkbox"/>	11 <input type="checkbox"/>	11 <input type="checkbox"/>
12 Flashbacks	12 <input type="checkbox"/>	12 <input type="checkbox"/>	12 <input type="checkbox"/>	12 <input type="checkbox"/>
13 Difficulty concentrating	13 <input type="checkbox"/>	13 <input type="checkbox"/>	13 <input type="checkbox"/>	13 <input type="checkbox"/>
14 Irritability	14 <input type="checkbox"/>	14 <input type="checkbox"/>	14 <input type="checkbox"/>	14 <input type="checkbox"/>
15 Other	15 <input type="checkbox"/>	15 <input type="checkbox"/>	15 <input type="checkbox"/>	15 <input type="checkbox"/>
Specify	_____	_____	_____	_____
16 None	16 <input type="checkbox"/>	16 <input type="checkbox"/>	16 <input type="checkbox"/>	16 <input type="checkbox"/>

28. Were you treated by any of the following as a result of this event? Check all that apply.

1 Physician (non-Psychiatrist)	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Dentist	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Chiropractor	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Nurse/N.P./Nurse Clinician/P.A.	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Psychiatrist/Psychologist/Therapist	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 Physical/Occupational Therapist	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 I treated myself	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 Other	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
Specify	_____	_____	_____	_____
9 No treatment	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>

29. Were you admitted to a hospital as a result of this event? Check one.

1 <input type="checkbox"/> Yes	1 <input type="checkbox"/> Yes	1 <input type="checkbox"/> Yes	1 <input type="checkbox"/> Yes
2 <input type="checkbox"/> No	2 <input type="checkbox"/> No	2 <input type="checkbox"/> No	2 <input type="checkbox"/> No

If YES, for how many days? _____ days _____ days _____ days _____ days

30. What changes in your work situation occurred as a result of the event? Check all that apply.

1 Quit your job	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Voluntary transfer to another location	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Involuntary transfer to another location	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Leave of absence	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Restriction/modification of work activities	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 No changes	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 Other	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
Specify	_____	_____	_____	_____

31. How long were work and non-work activities restricted as a result of this event? Check one.

1 No restriction	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Less than 4 hours	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 4 hours to less than 1 day	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 1 day to less than 3 days	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 3 days to less than 7 days	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 7 days to less than 14 days	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 14 days to less than 1 month	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 1 month to less than 3 months	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 3 months or more	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>

32. Are your activities still restricted as a result of this event? Check one.

1 <input type="checkbox"/> Yes	1 <input type="checkbox"/> Yes	1 <input type="checkbox"/> Yes	1 <input type="checkbox"/> Yes
2 <input type="checkbox"/> No	2 <input type="checkbox"/> No	2 <input type="checkbox"/> No	2 <input type="checkbox"/> No

Event 1 Event 2 Event 3 Event 4

33. As a result of this event, how many days were you absent from work. Check one.

- | | | | | |
|---------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1 None | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| 2 Less than 4 hours | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 3 4 hours to less than 1 day | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> |
| 4 1 day to less than 3 days | 4 <input type="checkbox"/> | 4 <input type="checkbox"/> | 4 <input type="checkbox"/> | 4 <input type="checkbox"/> |
| 5 3 days to less than 7 days | 5 <input type="checkbox"/> | 5 <input type="checkbox"/> | 5 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| 6 7 days to less than 14 days | 6 <input type="checkbox"/> | 6 <input type="checkbox"/> | 6 <input type="checkbox"/> | 6 <input type="checkbox"/> |
| 7 14 days to less than 1 month | 7 <input type="checkbox"/> | 7 <input type="checkbox"/> | 7 <input type="checkbox"/> | 7 <input type="checkbox"/> |
| 8 1 month to less than 3 months | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> | 8 <input type="checkbox"/> |
| 9 3 months or more | 9 <input type="checkbox"/> | 9 <input type="checkbox"/> | 9 <input type="checkbox"/> | 9 <input type="checkbox"/> |

34. Are you currently experiencing any persistent problems or symptoms related to this event? Check one.

- | | | | |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 1 <input type="checkbox"/> Yes | 1 <input type="checkbox"/> Yes | 1 <input type="checkbox"/> Yes | 1 <input type="checkbox"/> Yes |
| 2 <input type="checkbox"/> No | 2 <input type="checkbox"/> No | 2 <input type="checkbox"/> No | 2 <input type="checkbox"/> No |

If YES, please list problems/symptoms (specify event): _____

35. Did you report the event to a supervisor or other management personnel? Check all that apply.

- | | | | | |
|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1 Yes, orally | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> |
| 2 Yes, written | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 3 I did not report the event | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> |

If YES, what was the response/action of the supervisor or management personnel to the report?

Specify event number(s). _____

If NO, why was the event not reported? Specify event number(s). _____

36. Please describe how each event occurred. What were you doing just prior to the event? What was the person(s) who assaulted you doing just prior to the event? What triggered the event? Describe how you were assaulted.

Event 1: _____

Event 2: _____

Event 3: _____

Event 4: _____

Questions 37 through 59 pertain to work-related threats, sexual harassment, and verbal abuse.

A **threat** occurs when someone uses words, gestures, or actions with the intent of intimidating, frightening, or harming you (physically or otherwise).

Sexual harassment occurs when you experience any type of unwelcome sexual behavior (words or actions) that creates a hostile work environment.

Verbal abuse occurs when another person yells or swears at you, calls you names, or uses other words intended to control or hurt you.

37. Did you experience any work-related threats, sexual harassment, or verbal abuse, according to the above definitions, within the 12 months prior to today's date?

1 Yes 2 No —————> **Please continue to page 11.**



Please provide the following information for any threats, sexual harassment or verbal abuse that you experienced during the 12 months prior to today's date. This may include either a single event, with one or more persons, or multiple events with one or more persons.

38. Place a check under each type of behavior(s) you have experienced at work.

Threat	Sexual Harassment	Verbal Abuse
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>

39. How frequently did each type of behavior(s) occur? Check one.

Threat	Sexual Harassment	Verbal Abuse
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>

- 1 Single event
- 2 Monthly (2-25 events)
- 3 Weekly (26-100 events)
- 4 Daily (more than 100 events)

40. Over what time period did the behavior(s) occur? Check one.

Threat	Sexual Harassment	Verbal Abuse
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>

- 1 Single event
- 2 Less than 1 week
- 3 1 week to less than 1 month
- 4 1 month to less than 3 months
- 5 3 months to less than 6 months
- 6 6 months to less than 9 months
- 7 9 months to 1 year or more

41. Is the behavior(s) still continuing? Check one.

Threat	Sexual Harassment	Verbal Abuse
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>

- 1 Yes
- 2 No

42. Where did the behavior(s) occur (in most situations)? Check all that apply.

Threat	Sexual Harassment	Verbal Abuse
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>

- 1 Face to face/In your presence
- 2 Via telephone/Voice mail/Intercom
- 3 Via e-mail/Fax/Mail
- 4 Other

Specify _____

8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
----------------------------	----------------------------	----------------------------

43. What was your professional relationship with the person(s) who threatened/sexually harassed/verbally abused you (in most situations)? Check all that apply.

- 1 Patient/client
- 2 Supervisor
- 3 Subordinate
- 4 Doctor
- 5 Other employee
- 6 Patient's visitor
- 7 Other visitor
- 8 No professional relationship
- 9 Other
- Specify
- 88 Unsure

Threat

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Sexual Harassment

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Verbal Abuse

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

88

88

88

44. What was your personal relationship with this person(s)? Check all that apply.

- 1 Spouse/Significant other, Ex-spouse/Ex-significant other
- 2 Other relative
- 3 Friend
- 4 Acquaintance
- 5 No personal relationship
- 8 Unsure

Threat

- 1
- 2
- 3
- 4
- 5
- 8

Sexual Harassment

- 1
- 2
- 3
- 4
- 5
- 8

Verbal Abuse

- 1
- 2
- 3
- 4
- 5
- 8

45. What was the gender of the person(s) who threatened/sexually harassed/ verbally abused you (in most situations)? Check all that apply.

- 1 Male
- 2 Female
- 8 Unsure

Threat

- 1
- 2
- 8

Sexual Harassment

- 1
- 2
- 8

Verbal Abuse

- 1
- 2
- 8

46. What was the race of this person(s) (in most situations)? Check all that apply.

- 1 American Indian/Alaskan Native
- 2 Asian
- 3 Black, not of Hispanic origin
- 4 Hispanic
- 5 Native Hawaiian/Other Pacific Islander
- 6 White, not of Hispanic origin
- 7 Other
- Specify
- 8 Unsure

Threat

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Sexual Harassment

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Verbal Abuse

- 1
- 2
- 3
- 4
- 5
- 6
- 7

8

8

8

47. In what age group was this person(s) (in most situations)? Check all that apply.

- 1 Less than 13 years
- 2 13-17 years
- 3 18-24 years
- 4 25-34 years
- 5 35-65 years
- 6 66 and older
- 8 Unsure

Threat

- 1
- 2
- 3
- 4
- 5
- 6
- 8

Sexual Harassment

- 1
- 2
- 3
- 4
- 5
- 6
- 8

Verbal Abuse

- 1
- 2
- 3
- 4
- 5
- 6
- 8

48. Was this person(s) impaired (in most situations)? Check all that apply.

- 1 Yes, under influence of disease/illness
- 2 Yes, under influence of prescribed medication
- 3 Yes, under influence of other drugs or alcohol
- 4 Not impaired
- 8 Unsure

Threat

- 1
- 2
- 3
- 4
- 8

Sexual Harassment

- 1
- 2
- 3
- 4
- 8

Verbal Abuse

- 1
- 2
- 3
- 4
- 8

49. Was the behavior(s) witnessed? Check one.

- 1 Yes, at least once
- 2 No, never witnessed
- 8 Unsure

50. Please describe how the behavior(s) occurred, in general. What were you typically doing just prior to the event, and what was the person who threatened/sexually harassed/verbally abused you doing? What triggered the behavior(s)?

Please use extra paper if necessary.

51. As a result of the behavior(s) what types of symptoms and feelings have you experienced? Check all that apply.

- 1 Anger
- 2 Depression
- 3 Fatigue
- 4 Fear/anxiety
- 5 Frustration
- 6 Sadness
- 7 Shame/Low self-esteem
- 8 Headaches
- 9 Difficulty sleeping
- 10 Nightmares
- 11 Hallucinations
- 12 Flashbacks
- 13 Difficulty concentrating
- 14 Irritability
- 15 Other
- Specify
- 16 None

52. Are you currently experiencing any persistent problems or symptoms related to the behavior(s)? Check one.

- 1 Yes
- 2 No

If YES, please list problems or symptoms:

53. Were you treated by any of the following as a result of the behavior(s)? Check all that apply.

Check all that apply.

- 1 Physician (non-Psychiatrist)
- 2 Chiropractor
- 3 Nurse/N.P./Nurse Clinician/P.A.
- 4 Psychiatrist/ Psychologist/Therapist
- 5 I treated myself
- 6 Other
- Specify
- 7 No treatment

54. Were you admitted to a hospital as a result of the behavior(s)? Check one.

- 1 Yes
- 2 No

If YES, for how many days? (if none, fill in 0)

Threat	Sexual Harassment	Verbal Abuse
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
Threat	Sexual Harassment	Verbal Abuse
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Threat	Sexual Harassment	Verbal Abuse
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 <input type="checkbox"/>	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 <input type="checkbox"/>	9 <input type="checkbox"/>	9 <input type="checkbox"/>
10 <input type="checkbox"/>	10 <input type="checkbox"/>	10 <input type="checkbox"/>
11 <input type="checkbox"/>	11 <input type="checkbox"/>	11 <input type="checkbox"/>
12 <input type="checkbox"/>	12 <input type="checkbox"/>	12 <input type="checkbox"/>
13 <input type="checkbox"/>	13 <input type="checkbox"/>	13 <input type="checkbox"/>
14 <input type="checkbox"/>	14 <input type="checkbox"/>	14 <input type="checkbox"/>
15 <input type="checkbox"/>	15 <input type="checkbox"/>	15 <input type="checkbox"/>
16 <input type="checkbox"/>	16 <input type="checkbox"/>	16 <input type="checkbox"/>
Threat	Sexual Harassment	Verbal Abuse
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
Threat	Sexual Harassment	Verbal Abuse
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
_____ days	_____ days	_____ days

55. What changes in your work situation have occurred as a result of the behavior(s)?

Check all that apply.

- 1 Quit your job
 - 2 Voluntary transfer to another location
 - 3 Involuntary transfer to another location
 - 4 Leave of absence
 - 5 Restriction/modification of work activities
 - 6 No changes
 - 7 Other
- Specify _____

Threat

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Sexual Harassment

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Verbal Abuse

- 1
- 2
- 3
- 4
- 5
- 6
- 7

56. How long were work and non-work activities restricted as a result of the behavior(s)? *Check one.*

- 1 No restriction
- 2 Less than 4 hours
- 3 4 hours to less than 1 day
- 4 1 day to less than 3 days
- 5 3 days to less than 7 days
- 6 7 days to less than 14 days
- 7 14 days to less than 1 month
- 8 1 month to less than 3 months
- 9 3 months or more

Threat

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Sexual Harassment

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Verbal Abuse

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

57. Are your activities still restricted as a result of this behavior(s)? *Check one.*

- 1 Yes
- 2 No

Threat

- 1
- 2

Sexual Harassment

- 1
- 2

Verbal Abuse

- 1
- 2

58. As a result of the behavior(s), how many days were you absent from work? *Check one.*

- 1 None
- 2 Less than 4 hours
- 3 4 hours to less than 1 day
- 4 1 day to less than 3 days
- 5 3 days to less than 7 days
- 6 7 days to less than 14 days
- 7 14 days to less than 1 month
- 8 1 month to less than 3 months
- 9 3 months or more

Threat

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Sexual Harassment

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Verbal Abuse

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

59. In general, did you report the behavior(s) to a supervisor or other management personnel?

Check all that apply.

- 1 Yes, orally
- 2 Yes, written
- 3 No

Threat

- 1
- 2
- 3

Sexual Harassment

- 1
- 2
- 3

Verbal Abuse

- 1
- 2
- 3

If YES, what was the response/action of the supervisor or management personnel to the report? **If NO**, why was(were) the behavior(s) not reported? *Please use extra paper if necessary.*

_____	_____	_____
_____	_____	_____
_____	_____	_____

**** Please answer the following questions regardless of your personal experience with violence. ****

60. In the 12 months prior to today's date, how often have you *witnessed* other employees being physically assaulted, threatened, sexually harassed, or verbally abused in your work environment?

Check one box in each row.

	Never	1-3 times	4-10 times	More than 10 times
Physical assault	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Threat	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Sexual harassment	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Verbal abuse	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

61. In the 12 months prior to today's date, how often were you *made aware of*, but not a witness to, violence in your work environment?

Check one box in each row.

	Never	1-3 times	4-10 times	More than 10 times
Physical assault	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Threat	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Sexual harassment	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Verbal abuse	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

62. Do you believe that work-related violence is a problem in your environment? *Check one.*

1 Yes 2 No 3 Unsure

63. Do you believe that work-related violence against nurses can be prevented? *Check one.*

1 Yes 2 No 3 Unsure

Comments: _____

64. In what year did you graduate from your basic nursing program?

19_____

65. As of today's date, how many years have you worked as a licensed nurse?

_____ year(s) _____ month(s)

66. As of today's date, what is your highest level of nursing and non-nursing education?

Check one answer in each column that applies.

<u>Education level</u>	<u>Nursing</u>	<u>Non-nursing field of study</u>
Diploma	1 <input type="checkbox"/>	1 <input type="checkbox"/>
Associate Degree	2 <input type="checkbox"/>	2 <input type="checkbox"/>
Bachelors Degree	3 <input type="checkbox"/>	3 <input type="checkbox"/>
Masters Degree	4 <input type="checkbox"/>	4 <input type="checkbox"/>
Doctorate Degree	5 <input type="checkbox"/>	5 <input type="checkbox"/>

67. What is your gender?

1 Male 2 Female

68. What is your date of birth?

(month/day/year) ____/____/____

69. Which of the following best describes your race? Check all that apply.

- 1 American Indian or Alaskan Native
- 2 Asian
- 3 Black, not of Hispanic Origin
- 4 Hispanic
- 5 Native Hawaiian or Other Pacific Islander
- 6 White, not of Hispanic Origin
- 7 Other (specify): _____

70. What is your current marital status? Check one.

- 1 Married
- 2 Living as married
- 3 Living with a domestic partner
- 4 Never married
- 5 Separated
- 6 Divorced
- 7 Widowed

We would appreciate your providing a telephone number in case we need to clarify some information with you.

 (____) - ____ - _____ work home
area code

*****Thank you for taking the time to participate in this important study!***
Please return this survey in the enclosed envelope.**

August 1998 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	December 1998 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	April 1999 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	August 1999 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	December 1999 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
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October 1998 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	February 1999 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	June 1999 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	October 1999 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	February 2000 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
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Center for Violence Prevention and Control
 Division of Environmental and Occupational Health
 School of Public Health, University of Minnesota
 Box 807 Mayo, 420 Delaware St. SE
 Minneapolis, MN 55455
 Telephone: 612-625-4418; 1-877-687-7378 (toll free)

APPENDIX B
PHASE 2 – CASE-CONTROL STUDY
Phase 2: Case-Control Study Cover Letter
Phase 2: Case-Control Study Full Survey
Phase 2: Case-Control Study Short Survey

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Environmental and Occupational Health
School of Public Health

Box 807 Mayo
420 Delaware Street S.E.
Minneapolis, MN 55455

612-626-0900
Fax: 612-626-0650

Date

Inside address

line 2

line 3

line 4

Dear (nurse name):

**Collaborating
Organizations:**

Regional Injury
Prevention
Research Center,
University of
Minnesota

Center for
Violence
Prevention and
Control,
University of
Minnesota

Minnesota
Hospital and
Healthcare
Partnership

Minnesota
Nurses'
Association

Minnesota
Licensed
Practical Nurses'
Association

We are following up on the Minnesota Nurses' Survey of work-related violence among nurses. Your participation in the first part of the study is greatly appreciated. As you may recall, the primary aim of this study is to identify the magnitude of the problem and related risk factors for violence toward nurses in Minnesota. This study is being conducted by investigators in the Regional Injury Prevention Research Center and the Center for Violence Prevention and Control, in collaboration with those identified on this letter.

This part of the study involves nurses who reported work-related violence as well as a random sample of nurses who did not report such incidents during a twelve month period. The enclosed questionnaire will take about 20 minutes to complete. In order to obtain accurate information, we ask everyone who receives this questionnaire to participate--both those who reported a work-related violence event and those who did not. By comparing responses of those who experienced such an event to those who did not, we can identify risk factors that will be important to the development of prevention efforts.

As you know, we are providing treasury bonds valued at \$100 each to 100 randomly selected individuals; this involves a chance of at least 1 in 128. You can be eligible whether or not you choose to participate in the study by returning your survey indicating you would like to be included in the drawing. We will notify the individuals who are awarded the bonds at the completion of the data collection for both phases of the study.

Continued participation in this study is voluntary. Refusal to participate will not affect your future relations with any of the institutions involved with this effort.

We recognize that some questions included in the questionnaire may invoke painful memories; however, you are free to skip questions that you choose not to answer. We also assure you that your participation and all information collected in this study will remain completely confidential and will be reported only in aggregate form. In any published reports, there will be no information identifying any individual nurse or associated institution.

If you have any questions, please contact Dr. Susan Gerberich or Nancy Nachreiner at 612-625-2487 or toll free 1-877-NURSES U (1-877-687-7378). We look forward to your potential involvement in this important study and appreciate your completing and returning the survey as soon as possible.

Sincerely,



Susan Goodwin Gerberich, Ph.D., R.N.
Principal Investigator



Nancy Nachreiner, M.P.H., R.N.
Research Coordinator

Minnesota Nurses' Survey

Part II

Center for Violence Prevention and Control
Division of Environmental and Occupational Health
School of Public Health, University of Minnesota
Box 807 Mayo, 420 Delaware St. SE
Minneapolis, MN 55455
Telephone: 612-625-4418; 1-877-687-7378 (toll free)



Confidentiality - The information that you provide will be kept strictly confidential and no information that could personally identify you or the facility in which you work(ed) will ever be used. Only investigators at the University of Minnesota will ever have access to this information. If there is any question you do not wish to answer, please mark an X on the question number and continue to the next question.

Drawing - We are providing treasury bonds valued at \$100 each to 100 randomly selected individuals. You are not required to complete the questionnaire to be eligible for this drawing; however, you do need to check yes or no below and return this survey in the envelope provided.

1 **Yes**, include me in the treasury bond drawing.
2 **No**, do not include me in the treasury bond drawing.



Some of the questions on the following pages will refer to «prevmnth». Please verify your work status.
Did you work in a nursing position in Minnesota, for any amount of time, during «prevmnth»? Please check one.

1 **Yes. I did work in a nursing position in Minnesota during «prevmnth».**
↓
Proceed to next page.

2 **No. I did not work in a nursing position in Minnesota during «prevmnth».**
↓
Stop here, and return the survey in the enclosed envelope.

Please call us at (612) 625-4418 or 1-877 687-7378 (toll free) if you have any questions.

Thank you for taking the time to participate in this important study!

1. During «prevmnth», in what type of facility did you work the most time? Check only one.

- 1 Hospital – inpatient
- 2 Hospital – outpatient
- 3 Non-hospital outpatient facility
- 4 Clinic/Healthcare provider office
- 5 Nursing home/Long-term care facility
- 6 Home health agency
- 7 Public health agency
- 8 Rehabilitation facility
- 9 School/College/University
- 10 Independent practice/Consulting
- 11 Insurance/Utilization Review
- 12 Industry
- 13 I split my time equally between 2 or more types of facilities
- 14 Other (specify): _____

2. What was the ownership of this facility/ institution/agency? Check only one.

- 1 Private
- 2 City/Town
- 3 County
- 4 State
- 5 Federal/VA hospital/Military
- 6 I split my time equally between 2 or more facilities with different ownerships
- 8 Unsure

3. What was the location of this facility/ institution/agency? Check only one.

- 1 Rural
- 2 Urban
- 3 Suburban
- 4 I split my time equally between 2 or more locations
- 5 Other (specify): _____

4. How many total beds did your facility have at that time? Check only one.

- 1 Less than 20 beds
- 2 20-49 beds
- 3 50-99 beds
- 4 100-199 beds
- 5 200-299 beds
- 6 300-499 beds
- 7 More than 500 beds
- 8 I split my time equally between 2 or more facilities with different numbers of beds
- 9 Not applicable (facility does not have beds)
- 88 Unsure

5. What was the primary population with which you worked the most time, during «prevmnth»? Check only one.

- 1 Neonatal
- 2 Pediatric
- 3 Adolescent
- 4 Adult
- 5 Geriatric
- 6 I split my time equally between 2 or more populations

6. What was your primary professional activity during «prevmnth»? Check only one.

- 1 Provided patient care
- 2 Administration
- 3 Supervised patient care
- 4 Research
- 5 Insurance/Utilization reviews
- 6 Case management
- 7 Teaching
- 8 Telephone triage/Health information
- 9 I split my time equally between 2 or more activities
- 10 Other (specify): _____

7. Please refer to the calendar on the last page of the survey and record your best estimate of the number of weeks worked, and the average number of hours per week you worked during «prevmnth».

_____ Weeks in «prevmnth»

_____ Hours per week

8. During «prevmnth», in what type of department/unit/area did you work the most time? Check only one.

- 1 Medical/Surgical
- 2 Operating/Recovery Room
- 3 Intensive care
- 4 Psychiatric/Behavioral
- 5 Obstetric/Gynecologic
- 6 Emergency
- 7 Public Health/Home Care
- 8 Family Practice
- 9 Occupational Health
- 10 School Health Services
- 11 Education/Research
- 12 Long-term/Assisted Care
- 13 I split my time equally between 2 or more departments/units/areas
- 14 Other (specify): _____

9. What was the total length of time that you worked in this department(s)/unit(s)/area(s), as of «prevmnth»?

_____ Year(s) _____ Month(s)

10. During «prevmnth», what shift did you work the most time in the department/unit/area that you identified above? Check only one.

- 1 Day or regular office hours (8 hour shift)
- 2 Evening (8 hour shift)
- 3 Night (8 hour shift)
- 4 12 hour shift (specify time: _____ to _____)
- 5 Other (specify, including total hours worked on this shift): _____

For questions 11 through 15:

- Respond according to the shift that you identified in Question 10

11. During «prevmth», were there any other personnel, besides yourself, in your immediate work environment on the shift you worked most often?

- 1 Yes
2 No → Skip to question 12.

a. Of these personnel (all nursing and non-nursing), on average, how many worked on that shift? Please identify number.

_____ Personnel

b. Of these personnel (nursing and non-nursing), which of the following racial/ethnic groups most commonly worked on that shift? Check only one.

- 1 American Indian/Alaskan Native
- 2 Asian
- 3 Black, not of Hispanic Origin
- 4 Hispanic
- 5 Native Hawaiian/Other Pacific Islander
- 6 White, not of Hispanic Origin
- 7 Other
- 8 Unsure
- 9 No one group was most common

c. Of these personnel (nursing and non-nursing), in general, were men or women most commonly working on that shift? Check only one.

- 1 Men
- 2 Women
- 3 No one group was more common

d. How many nursing personnel (Registered Nurses, Licensed Practical Nurses, nurses' aides/assistants), on average, worked on that shift? If there were no nursing personnel, please write "0."

_____ Nursing Personnel

12. During «prevmth», were there any patients/clients in your immediate work environment on the shift you worked most often?

- 1 Yes
2 No → Skip to question 13.

a. Of the patients/clients, which of the following racial/ethnic groups was most common on that shift? Check only one.

- 1 American Indian/Alaskan Native
- 2 Asian
- 3 Black, not of Hispanic Origin
- 4 Hispanic
- 5 Native Hawaiian/Other Pacific Islander
- 6 White, not of Hispanic Origin
- 7 Other
- 8 Unsure
- 9 No one group was most common

b. Of the patients/clients, in general, were there more men or women on the shift you worked most often? Check only one.

- 1 Men
- 2 Women
- 3 No one group was more common

13. During «prevmth», did you provide any direct patient care on the shift that you worked most often?

- 1 Yes
2 No → Skip to question 16.

a. During «prevmth», how many patients/clients, were assigned to you, on average per shift, on the shift you worked most often? Please identify number.

_____ Patients/Clients

b. During «prevmth», what percentage of patients/clients, in each of the following mental status categories, were assigned to you on average per shift, on the shift you worked most often?

_____ % Impaired (under influence of disease, prescribed medication, alcohol, or other drugs)
_____ % Non-impaired
_____ % Unsure

100 %

14. During «prevmth», on average, what was the number of hours of patient/client contact you had per shift?

(Hours of patient/client contact are defined as the total hours that you spent in interaction with patients/clients during the shift. Do not include hours that you spent in charting, interaction with co-workers or preparation for treatment, etc.)

_____ Hours per shift

15. During «prevmth», what was the average duration of care (length of institutional stay, duration of home care, etc.) for patients/clients assigned to you? Check only one.

- 1 Less than 1 day
- 2 1 day to less than 4 days
- 3 4 days to less than 1 week
- 4 1 week to less than 2 weeks
- 5 2 weeks to less than 3 weeks
- 6 3 weeks to less than 1 month
- 7 One month or more
- 8 Unsure



16. During «prevmth», how would you estimate the level of stress from your work that you felt?

Check only one.

- 1 No stress
- 2 Some stress
- 3 Moderate stress
- 4 A lot of stress
- 8 Unsure

17. During «prevmth», what was the quality of respect and trust among personnel with whom you worked? Check only one.

- 1 Poor
- 2 Fair
- 3 Good
- 4 Very good
- 5 Outstanding
- 8 Unsure

18. During «prevmth», what was the quality of morale (optimism, work satisfaction) among personnel with whom you worked? Check only one.

- 1 Poor
- 2 Fair
- 3 Good
- 4 Very good
- 5 Outstanding
- 8 Unsure

19. During «prevmth», how much would you have agreed or disagreed with the following statements? Check only one answer for each of the following.

a. My supervisor showed concern for the welfare of those he/she supervised.

- 1 Strongly disagree
- 2 Disagree
- 3 Agree
- 4 Strongly agree
- 5 I had no supervisor
- 8 Unsure

b. My supervisor paid attention to what I said.

- 1 Strongly disagree
- 2 Disagree
- 3 Agree
- 4 Strongly agree
- 5 I had no supervisor
- 8 Unsure

20. During «prevmth», were any of the following assault deterrents available in your immediate work environment? Check only one answer for each of the following (a-i).

a. Video Monitor

- 1 Yes
- 2 No
- 8 Unsure if available

b. Metal Detection Device

- 1 Yes
- 2 No
- 8 Unsure if available

c. Security Alarm/Panic Button

- 1 Yes
- 2 No
- 8 Unsure if available

d. Controlled access to work area or patient care area

- 1 Yes
- 2 No
- 8 Unsure if available

e. Personal portable alarm (e.g., whistle, screamer, etc.)

- 1 Yes, I provided it
- 2 Yes, my employer provided it
- 3 Yes, another institution/person provided it
- 4 No, not available
- 8 Unsure if available

f. Cell phone

- 1 Yes, I provided it
- 2 Yes, my employer provided it
- 3 Yes, another institution/person provided it
- 4 No, not available
- 8 Unsure if available

g. Security Personnel

- 1 Yes, my employer provided it
- 2 Yes, another institution/person provided it
- 3 No, not available
- 8 Unsure if available

h. Escort/Bodyguard

- 1 Yes, I provided it
- 2 Yes, my employer provided it
- 3 Yes, another institution/person provided it
- 4 No, not available
- 8 Unsure if available

i. Other, specify: _____

21. During «prevmth», what was the typical level of lighting in your work environment? Check only one.

- 1 As bright as daylight
- 2 Soft light, but I could still see a person's face clearly
- 3 Dim light; I could not see a person's face clearly, but I could see a figure
- 4 I could not see anything
- 8 Unsure



22. **During «prevmnth», were exits in your work environment easily accessible?**

Check only one.

- 1 Yes
2 No
8 Unsure

23. **During «prevmnth», were there any physical barriers that prevented you from seeing others in your work environment?**

Check only one.

- 1 Yes
2 No
8 Unsure

24. **During «prevmnth», how much would you have agreed or disagreed with the following statements relevant to the facility/institution /agency in which you worked the most time?**

Check only one answer for each of the following (a-f).

a. **Administration expected that assault was a possible consequence of the job.**

- 1 Strongly disagree
2 Disagree
3 Agree
4 Strongly agree
8 Unsure

b. **Administration took corrective/preventive measures against assault in the workplace.**

- 1 Strongly disagree
2 Disagree
3 Agree
4 Strongly agree
8 Unsure

c. **Co-workers expected that assault was a possible consequence of the job.**

- 1 Strongly disagree
2 Disagree
3 Agree
4 Strongly agree
8 Unsure

d. **Co-workers took corrective/preventive measures against assault in the workplace.**

- 1 Strongly disagree
2 Disagree
3 Agree
4 Strongly agree
8 Unsure

e. **I expected that assault was a possible consequence of the job.**

- 1 Strongly disagree
2 Disagree
3 Agree
4 Strongly agree
8 Unsure

f. **I took corrective/preventive measures against assault in the workplace.**

- 1 Strongly disagree
2 Disagree
3 Agree
4 Strongly agree
8 Unsure

25. **Prior to «assltmth», did your facility/institution/agency have a written policy on violence that addressed any of the following... Check only one answer for each of the following (a-h).**

a. **... "zero tolerance" for violence, that is, violence was not tolerated at any level?**

- 1 Yes
2 No
8 Unsure

b. **... types of violent behaviors (physical assault, threat, sexual harassment, or verbal abuse) that were prohibited?**

- 1 Yes
2 No
8 Unsure

c. **... consequences for those who used violence at work?**

- 1 Yes
2 No
8 Unsure

d. **... how to report if someone sexually harassed, threatened, or verbally abused you?**

- 1 Yes
2 No
8 Unsure

e. **... how to report if someone physically assaulted you?**

- 1 Yes
2 No
8 Unsure

f. **... assurance that reporting of violent incidents would be kept confidential?**

- 1 Yes
2 No
8 Unsure

g. **... requirements for violence prevention training of staff members?**

- 1 Yes
2 No
8 Unsure

h. **... requirements for flagging of charts or other signals to staff members regarding patients/clients with repeated violent behavior?**

- 1 Yes
2 No
8 Unsure



26. Prior to «assltmth», to what degree was this written policy enforced? Check only one.

- 1 No policy on any of the above
- 2 Always enforced
- 3 Almost always enforced
- 4 Sometimes enforced
- 5 Almost never enforced
- 6 Never enforced
- 8 Unsure

27. Prior to «assltmth», did your facility/ institution/ agency have a policy allowing the use of chemical or physical restraints of patients to protect others? Check only one.

- 1 Yes
- 2 No
- 8 Unsure

28. Prior to «assltmth», were chemical or physical restraints used in your facility/ institution/ agency to protect others? Check only one.

- 1 Yes
- 2 No
- 8 Unsure

29. Prior to «assltmth», did your facility/ institution/ agency have a visitor policy that included the following...Check only one answer for each of the following (a-c).

a. Designated visiting hours?

- 1 Yes
- 2 No
- 8 Unsure
- 3 Not Applicable

b. Limits on the number of visitors per patient?

- 1 Yes
- 2 No
- 8 Unsure
- 3 Not Applicable

c. Visitor sign-in sheet/Visitor identification badge?

- 1 Yes
- 2 No
- 8 Unsure
- 3 Not Applicable

30. Prior to «assltmth», to what degree was the visitor policy enforced? Check only one.

- 1 No visitor policy/Not applicable
- 2 Always enforced
- 3 Almost always enforced
- 4 Sometimes enforced
- 5 Almost never enforced
- 6 Never enforced
- 8 Unsure

31. Prior to «assltmth», were you ever trained about...Check all that apply for each of the following (a-h).

a. ...work-related violence prevention policy?

- 1 No
- 2 Yes, at current job
- 3 Yes, at previous job
- 4 Yes, at nursing school
- 5 Yes, at another location
- 8 Unsure

b. ...how to operate safety alarms or other safety devices?

- 1 No
- 2 Yes, at current job
- 3 Yes, at previous job
- 4 Yes, at nursing school
- 5 Yes, at another location
- 8 Unsure

c. ...reporting work-related harassment?

- 1 No
- 2 Yes, at current job
- 3 Yes, at previous job
- 4 Yes, at nursing school
- 5 Yes, at another location
- 8 Unsure

d. ...reporting work-related physical assault?

- 1 No
- 2 Yes, at current job
- 3 Yes, at previous job
- 4 Yes, at nursing school
- 5 Yes, at another location
- 8 Unsure

e. ...managing assaultive or violent patients?

- 1 No
- 2 Yes, at current job
- 3 Yes, at previous job
- 4 Yes, at nursing school
- 5 Yes, at another location
- 8 Unsure

f. ...risk factors of violence?

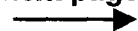
- 1 No
- 2 Yes, at current job
- 3 Yes, at previous job
- 4 Yes, at nursing school
- 5 Yes, at another location
- 8 Unsure

g. ...self defense?

- 1 No
- 2 Yes, at current job
- 3 Yes, at previous job
- 4 Yes, at nursing school
- 5 Yes, at another location
- 8 Unsure

h. ...other violence prevention methods?

Please specify: _____



32. In the 12 months prior to «assltmth», how often did you have training related to violence prevention? Check only one.

- 1 Never
- 2 1-2 times
- 3 3-5 times
- 4 6-8 times
- 5 9-11 times
- 6 12 or more times

33. In the 12 months prior to «assltmth», approximately how many hours of violence prevention training did you have? Check only one.

- 1 None
- 2 Less than 5 hours
- 3 5 to less than 10 hours
- 4 10 to less than 15 hours
- 5 15 to less than 20 hours
- 6 20 to less than 25 hours
- 7 25 hours or more

34. Prior to «assltmth», in what year did you receive your most recent violence prevention training?

- _____
- 1 I have never had violence prevention training.

Please consider the following definitions when completing the next set of questions.

Work-related includes any activities associated with your job or events that occur in your work environment; work-related travel should be included. **Work-related violence** is defined as the intentional use of physical force or emotional abuse, against an employee, that results in physical or emotional injury and consequences. This includes *physical assault, threat, sexual harassment, and verbal abuse*. **Physical assault** occurs when you are hit, slapped, kicked, pushed, choked, grabbed, sexually assaulted, or otherwise subjected to physical contact intended to injure or harm you. A **threat** occurs when someone uses words, gestures, or actions with the intent of harming you (physically or otherwise). **Sexual harassment** occurs when you experience any type of unwelcome sexual behavior (words or actions) that creates a hostile work environment. **Verbal abuse** occurs when another person yells or swears at you, calls you names, or uses other words intended to control or hurt you.

35. Prior to «assltmth», how often were you the target of physical assault? Check only one for each of the following.

- a. **Work-related physical assault?**
- 1 Never
 - 2 1-3 times
 - 3 4-10 times
 - 4 More than 10 times

b. **Physical assault not related to work?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

36. Prior to «assltmth», how often were you the target of a threat, sexual harassment, or verbal abuse? Check only one for each of the following.

a. **Work-related threat?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

b. **Threat not related to work?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

c. **Work-related sexual harassment?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

d. **Sexual harassment not related to work?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

e. **Work-related verbal abuse?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

f. **Verbal abuse not related to work?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

37. During «prevmth», how often did you witness patients doing any of the following in your work environment? Check only one for each of the following.

a. **Physical assault?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

b. **Threat?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

c. **Sexual harassment?**

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times



d. Verbal abuse?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

38. During «prevmnth», how often were you made aware of patients doing any of the following in your work environment that you did not witness? Check only one for each of the following.

a. Physical assault?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

b. Threat?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

c. Sexual harassment?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

d. Verbal abuse?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

39. During «prevmnth», how often did you witness any person(s), other than a patient, doing any of the following in your work environment? Check only one for each of the following.

a. Physical assault?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

b. Threat?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

c. Sexual harassment?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

d. Verbal abuse?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

40. During «prevmnth», how often were you made aware of any person(s) other than a patient doing any of the following in your work environment that you did not witness? Check only one for each of the following.

a. Physical assault?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

b. Threat?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

c. Sexual harassment?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

d. Verbal abuse?

- 1 Never
- 2 1-3 times
- 3 4-10 times
- 4 More than 10 times

41. During «prevmnth», did you usually carry any of the following for protection? Check Yes or No for each of the following.

a. Mace/Pepper Spray?

- 1 Yes
- 2 No

b. Alarm device (whistle, screamer, etc.)?

- 1 Yes
- 2 No

c. Firearm?

- 1 Yes
- 2 No

d. Sharp Instrument?

- 1 Yes
- 2 No

e. Blunt Instrument?

- 1 Yes
- 2 No

f. Other, specify: _____

42. Which of the following categories best described your annual household income from all sources, before taxes, prior to «assltmth»? Check only one.

- 1 Less than \$10,000
- 2 \$10,000 to less than \$15,000
- 3 \$15,000 to less than \$20,000
- 4 \$20,000 to less than \$25,000
- 5 \$25,000 to less than \$35,000
- 6 \$35,000 to less than \$50,000
- 7 \$50,000 to less than \$75,000
- 8 Over \$75,000
- 9 Unsure



43. What was your educational status *prior to «assltmnth»*? Check only one answer in each column that applies.

	<u>Nursing</u>	<u>Non-nursing</u>
Diploma	1 <input type="checkbox"/>	1 <input type="checkbox"/>
Associate Degree	2 <input type="checkbox"/>	2 <input type="checkbox"/>
Bachelors Degree	3 <input type="checkbox"/>	3 <input type="checkbox"/>
Masters Degree	4 <input type="checkbox"/>	4 <input type="checkbox"/>
Doctorate Degree	5 <input type="checkbox"/>	5 <input type="checkbox"/>

44. *Prior to «assltmnth»*, how many years had you worked as a licensed nurse?

R.N. License _____ Years _____ Months

L.P.N License _____ Years _____ Months

45. *During «prevmnth»*, what was your approximate weight?

_____ Pounds

46. What is your height in feet and inches?

_____ Feet _____ Inches

47. Do you have any additional comments about work-related violence? Please use extra paper if necessary.

***Thank you for taking the time to participate in this important study!
Please return this survey in the enclosed envelope.***

This calendar is for your reference.

1998

January 1998 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	April 1998 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	July 1998 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	October 1998 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
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Patient name: «FNAME» «MNAME» «LNAME»

Minnesota Nurses' Study Work-Related Physical Assault

We are interested in collecting medical information on *work-related assault injuries between «Firstdate» and «Lastdate»*. Below is a list of possible types of physical injuries, and body parts that may have been injured, as a result of work-related assault. Please complete the following information for any work-related physical assaults for «FNAME» «LNAME» between «Firstdate» and «Lastdate» and return it in the enclosed envelope. If there have been more than two possible work-related assault injuries, please copy this form, or call 1-877- 687-7378 (toll free) for additional copies.

	<u>Injury 1</u>	<u>Injury 2</u>
1. What was the type of physical injury? Check all that apply.		
1 Abrasion	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Amputation	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Asphyxia	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Bite	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Bruise/contusion	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 Burn	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 Concussion (Loss of consciousness/awareness)	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 Crushing/mangling	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 Cut/laceration/scratch	9 <input type="checkbox"/>	9 <input type="checkbox"/>
10 Fracture/dislocation	10 <input type="checkbox"/>	10 <input type="checkbox"/>
11 Nerve injury	11 <input type="checkbox"/>	11 <input type="checkbox"/>
12 Penetration injury including puncture	12 <input type="checkbox"/>	12 <input type="checkbox"/>
13 Poisoning	13 <input type="checkbox"/>	13 <input type="checkbox"/>
14 Rupture	14 <input type="checkbox"/>	14 <input type="checkbox"/>
15 Sexual assault	15 <input type="checkbox"/>	15 <input type="checkbox"/>
16 Sprain/strain	16 <input type="checkbox"/>	16 <input type="checkbox"/>
17 Stunned	17 <input type="checkbox"/>	17 <input type="checkbox"/>
18 Temporary discoloration/slap mark	18 <input type="checkbox"/>	18 <input type="checkbox"/>
19 Torn ligament	19 <input type="checkbox"/>	19 <input type="checkbox"/>
20 Other	20 <input type="checkbox"/>	20 <input type="checkbox"/>
Specify		
2. What body part(s) was (were) injured? Check all that apply.		
1 Head/skull/brain	1 <input type="checkbox"/>	1 <input type="checkbox"/>
2 Face (forehead, cheek, nose, lip, jaw, ear)	2 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Eye/eyelid	3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 Teeth	4 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Neck (cervical area)	5 <input type="checkbox"/>	5 <input type="checkbox"/>
6 Back (muscles, skin)	6 <input type="checkbox"/>	6 <input type="checkbox"/>
7 Internal chest	7 <input type="checkbox"/>	7 <input type="checkbox"/>
8 External chest (muscles, skin)	8 <input type="checkbox"/>	8 <input type="checkbox"/>
9 Spinal cord/spine (vertebrae, sacrum, tailbone, coccyx, disks)	9 <input type="checkbox"/>	9 <input type="checkbox"/>
10 Internal abdomen	10 <input type="checkbox"/>	10 <input type="checkbox"/>
11 External abdomen (muscles, skin)	11 <input type="checkbox"/>	11 <input type="checkbox"/>
12 Shoulder/collar bone, shoulder blade	12 <input type="checkbox"/>	12 <input type="checkbox"/>
13 Arm/elbow/wrist	13 <input type="checkbox"/>	13 <input type="checkbox"/>
14 Hand/fingers/thumb(s)	14 <input type="checkbox"/>	14 <input type="checkbox"/>
15 Internal hips/pelvis (uterus, ovaries, bladder, rectum)	15 <input type="checkbox"/>	15 <input type="checkbox"/>
16 External hips/pelvis (muscles, skin)	16 <input type="checkbox"/>	16 <input type="checkbox"/>
17 Buttocks	17 <input type="checkbox"/>	17 <input type="checkbox"/>
18 Genitalia	18 <input type="checkbox"/>	18 <input type="checkbox"/>
19 Leg (thigh, shin, calf, knee, ankle)	19 <input type="checkbox"/>	19 <input type="checkbox"/>
20 Foot/heel, toes	20 <input type="checkbox"/>	20 <input type="checkbox"/>
21 General systems	21 <input type="checkbox"/>	21 <input type="checkbox"/>
22 Other	22 <input type="checkbox"/>	22 <input type="checkbox"/>
Specify		

3. Dates of treatment:

MINNESOTA NURSES' SURVEY

Confidentiality - The information that you provide will be kept strictly confidential and no information that could personally identify you or the facility in which you work(ed) will ever be used. Only investigators at the University of Minnesota will ever have access to this information. If there is any question you do not wish to answer, please mark an X on the question number, and continue to the next question.

Drawing - We are providing treasury bonds valued at \$100 each to 100 randomly selected individuals. You are not required to complete the questionnaire to be eligible for this drawing; however, you do need to check yes or no below, and return this survey in the envelope provided.

1 Yes, include me in the treasury bond drawing 2 No, do not include me in the treasury bond drawing

1. Are you the person to whom this questionnaire was sent?

1 Yes 2 No →

Please call 1-877-NURSESU (1-877-687-7378) toll free, so that we may clarify the situation.

2. What is today's date?

____/____/____
month day year

3. Did you work in a nursing position, for any amount of time, in Minnesota, in the 12 months prior to today's date?

1 Yes 2 No →

Thank you for taking the time to respond. Please stop here and return the questionnaire in the enclosed envelope.

The following definitions are provided to help you respond to the questions below. Please answer questions 4 and 5.

Work-related includes any activities associated with your job or events that occur in your work environment; work-related travel should be included.

Work-related violence is defined as the intentional use of physical force or emotional abuse, against an employee, that results in physical or emotional injury and consequences. This includes *physical assault, threat, sexual harassment, and verbal abuse*.

- **Physical assault** occurs when you are hit, slapped, kicked, pushed, choked, grabbed, sexually assaulted, or otherwise subjected to physical contact intended to injure or harm you.
- A **threat** occurs when someone uses words, gestures, or actions with the intent of intimidating, frightening, or harming you (physically or otherwise).
- **Sexual harassment** occurs when you experience any type of unwelcome sexual behavior (words or actions) that creates a hostile work environment.
- **Verbal abuse** occurs when another person yells or swears at you, calls you names, or uses other words intended to control or hurt you.

4. Were you the target of a work-related *physical assault* at any time during the 12 months prior to today's date?

1 Yes 2 No

5. Did you experience any work-related *threats, sexual harassment, or verbal abuse*, according to the above definitions, within the 12 months prior to today's date?

1 Yes 2 No

*****Thank you for taking the time to participate in this important study!*****
Please return this survey in the enclosed envelope.

