

Prevalence and Risk Factors of Workplace Violence Among Registered Nurses in Tertiary Hospitals

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Abstract: Workplace violence in healthcare organizations is a significant global occupational health problem, and nurses are the occupational group at greatest risk. This descriptive research examined the prevalence of workplace violence and risk factors among registered nurses working at tertiary care hospitals in upper Northern Thailand. Workplace violence was defined as physical and psychological violence. Psychological violence include verbal abuse, bullying/mobbing, and sexual harassment. Data was collected from 555 purposively chosen registered nurses, and analyzed using logistic regression. The survey tool was adapted from the standardized Workplace Violence Questionnaire developed by the ILO/ICN/WHO/PSI in 2003.

The prevalence of physical workplace violence in the preceding 12 months was found to be 12.1%, while the prevalence of psychological violence was verbal abuse (50.3%), bullying/mobbing (10.3%), and sexual harassment (1.6%). Risk factors for verbal abuse included being a registered nurse with direct nursing care responsibilities; workplaces without adequate security; having workplace violence concerns; and less than ten years work experience. Physical violence risk factors included high patient workloads per nurse; the provision of nursing care to adolescent and adult patients; lack of workplace violence reporting procedures; being aged under 35 years; and workplaces without adequate security.

The results suggest that healthcare managers should actively develop and implement safe hospital policies, systems for reporting incidents, and security measures to prevent workplace violence from patients and their relatives and bullying from co-workers. Education and training are also recommended for the management of violence and aggression from patients as well as bullying.

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Introduction

Workplace violence (WPV) in healthcare organizations is a major international occupational health issue. WPV applies to events in which workers are harassed, threatened or assaulted in their work-related situations, including a direct or indirect challenge to

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their safety, well-being or health.¹ Among healthcare workers, nurses are considered to be at the greatest risk of violence in the workplace, in both hospital and community settings.² More than half of health care workers have suffered workplace violence, with increased rates of victimization among clinical nurses.^{2,3} WPV incidence varies by country and the nature of the healthcare setting. A study conducted in South Korea among 312 nurses revealed that more than 60% of respondents reported that their work productivity decreased due to exposure to either physical or verbal violence.⁴ WPV can turn the workplace into an unsafe and hostile place⁵ and result in physical injury to staff⁶ and decrease productivity.⁷ WPV also affects the victim's health, job satisfaction, morale, life quality, and can precipitate depression, anxiety, emotional exhaustion, and burnout.⁸ Thus, WPV has many negative consequences, both for healthcare organizations and individual nurses.^{3,9} It is recognized that in dealing with WPV, management after WPV is also important and need to pay a great concern.

While there has been extensive research about WPV in many different clinical settings in Thailand, the prevalence of this has not been established in tertiary hospitals that provide specialist care for patients with complex needs after referral from the primary and secondary care providers: in these settings registered nurses (RNs) comprise the majority of the health workforces.^{10,11} Studies in other countries have found that tertiary hospitals have a high prevalence of WPV^{6,7,10} and this research was undertaken to establish the prevalence of WPV and to understand the risk factors for WPV for RNs at tertiary care hospitals in Northern Thailand.

Literature Review and Theoretical Framework

Violence in the workplace is most often defined by the nature of harm experienced by the victim. It can be physical, emotional involving verbal abuse and bullying/mobbing¹², sexual abuse, or harassment.¹³ The World Health Organization (WHO) and The

International Labor Organization (ILO) define WPV as "incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, [and] involving an explicit or implicit challenge to their safety, well-being or health."^{14,p.3} Physical violence is violence involving physical contact such as beating, kicking, slapping, and stabbing, shooting, pushing, and biting.² Psychological violence is the intentional use of power, including the threat of physical force through words or tone, disrespect, verbal abuse, bullying/mobbing, harassment, and other threatening behaviour.¹⁴ Psychological violence is often associated with repeated emotional abuse and has serious negative psychological consequences for the victim. This is often the case with verbal abuse, bullying and mobbing.¹

It has been established that there is no single risk factor that leads to WPV, rather this has been shown to be influenced by multiple levels of risk factors.¹² The ecological occupational health model formed the theoretical basis for this study which allowed us to understand the factors that put RNs at risk for WPV. This model comprises three levels: (1) the microsystem or individual level, (2) the mesosystem or environment level, and (3) the exosystem or organization level.¹⁵ This conceptual framework facilitated the exploration of risk factors and influences related to the levels of this framework, (for example, the individual characteristics of RNs) but also of higher levels of influence including organizational, environmental and policy factors.

Individual factors include gender, years of experience, and qualification for example, a multi-country study of 660 nurses indicated female nurses experience twice as much WPV as males.¹⁶ Nurses with only 1–5 years of work experience report WPV at about nine times the rate of those with >5 years of work experience¹⁶ and evidence suggests that nurses with a university education are more exposed to WPV than others.¹⁷ Higher rates of verbal and physical aggression were reported by nurses with bachelor degree than those with a master or a diploma degree.¹⁸

Environmental factors refer to the clinical ward or department and personal interactions and relationships. Relationships marred by incivility and harassment can lead to unsafe working conditions that eventually have a negative effect on the quality and safety of care provided. Disruptive and aggressive behavior has been reported by nurses, doctors, and other health care workers.¹⁹ Clinical nurses are required to work together providing direct care to patients, and this has consequences for their working relationships with each other.⁸ A range of factors have been found regarding clinical nurses' increased risk of WPV including low tolerance for particular behaviors; inefficient teamwork; lack of communication skills; conflict between co-workers; poor interrelationships within the work environment and bullying by co-workers.¹⁰ Some research has suggested that medical doctors are among the main perpetrators of workplace harassment.²⁰ Poor working relationships between physicians and nurses has been implicated as part of the problem, as historically nurses have less power and influence in this dynamic.²¹

Organizational factors associated with WPV include stressful working conditions due to insufficient personnel leading to overcrowding, long waiting times (leading to subsequent violence from patients and their relatives) rotating shift work, and workload.²²⁻²⁴ The review also found that higher incidence of WPV correlated with excessive workloads and long waiting periods in hospital settings.¹⁷ Organizational policies should include measurements of WPV and assess the organization's capacity to handle WPV. Optimal conditions should be identified that set out appropriate physical working conditions that promote and protect nurses when providing services.²⁵

Aim: This study examined the prevalence and perceived risk factors of WPV among RNs in tertiary hospitals in Northern Thailand.

Methods

Design: A descriptive cross-sectional design was used.

Sample and Settings: We recruited a broad sample of RNs working in two of the eight tertiary hospitals in upper Northern Thailand and in six clinical departments comprising emergency rooms (ER), intensive care units (ICU), mental health departments, operating rooms (OR), medical and surgical departments. These departments were chosen based on findings of previous overseas research of a relatively higher prevalence of WPV in these settings. Inclusion criteria were RNs with at least one year of experience and not working in a higher administrative position.

Sample size can be calculated to good precision using prevalence established in the literature.²⁶ In this study, the sample size was calculated using 30% prevalence of WPV among nurses that was found in a previous study in China.²⁷ The formula uses this rate of prevalence, along with an error margin of 5% and a confidence level of 95%, and arrived at the sample size of 497.

To recruit the study sample a proportional sampling method was used. The same recruitment procedure was applied to each of the six departments of these two hospitals. After that, simple random sampling was adopted to choose RNs in each clinical department of the two hospitals to obtain the required number.

Ethical Considerations: The protocol, including its instruments, was reviewed and approved by the Research Ethics Committee of the Faculty of Nursing, Chiang Mai University approval number 112-2559, and the ethics committees of participating hospitals. The researcher informed nursing directors and research participants via their monthly meeting regarding the study purpose and process. Participants were assured about their privacy and confidentiality of their information. They were also assured that all data would be analyzed anonymously and presented not individually but as a group. Consent and agreement were obtained from the participants prior to data collection.

Research Instruments

The questionnaire was used with permission and adapted from the WPV in the Health Sector Country

Case Study Questionnaire, which was designed collaboratively in 2003 by the ILO, the International Council of Nurses, the WHO, and Public Services International.¹² It consists of four aspects: personal and workplace information, physical WPV, psychological WPV, and physical and psychological workplace violence interventions in five principal areas; physical violence, verbal abuse, bullying / mobbing, and sexual harassment as well as employer policies and preventative measures. This questionnaire was adjusted for the clinical Thai context by the research team. Minor alterations were made to the demographic section of the survey to reflect Thai personnel categories. The questionnaire has the following four sections:

1. Personal and workplace data. This includes 19 closed questions: (1) demographic characteristics data consisting of age, gender, marital status, educational level, work experience, job position, and primary shift; (2) workplace environment data comprising of interactions with patients during work, direct care and nursing procedures, types of patients, gender of patients, main professional co-workers, the number of staff in work settings, and concerns about WPV; and (3) organizational data comprising of procedures for WPV reporting, knowledge on how to comply with WPV procedures, encouragement for WPV reporting, and encouragement from responsible personnel to report WPV. The questionnaire includes a checklist a list of items and respondents are required to fill in the blanks.

2. Physical violence. This second part contains 21 closed questions asking about experiences of physical violence during the last 12 months. The primary question of interest in this section is whether the participant had been physically attacked in the workplace in the previous 12 months. For example: "Have you experienced physical violence in the last 12 months?" A yes/no response is required, and if yes, follow-up questions identify whether a weapon was involved, the identity of the perpetrator, the time of the attack, and the consequences for the attacker with reference to the last time that the participant was physically attacked

in the workplace. For example, "Who attacked you? What were the consequences for the attacker?" The consequences relate to subsequent worries about WPV and are reported using a scale from once a year (1) to almost all the time (4).

3. Psychological violence. This third part relates to the frequency of experiences of psychological violence occurring during the previous 12 months. This violence is categorized as verbal abuse, bullying/mobbing and sexual harassment, and consists of 51 closed questions. The primary question of interest in this section is whether the participant experienced psychological violence in the workplace in the previous 12 months. For example: "Have you experienced verbal abuse, bullying/mobbing, and sexual harassment in the last 12 months?" A yes/no response is required, and if yes, follow up questions ask about the frequency of physical attacks; this also refers to the last time that the participant experienced psychological violence in the workplace. For example, "Who attacked you? What were the consequences for the attacker?" The consequences relate to the subsequent worries about WPV and are reported using a scale ranging from once a year (1) to almost all the time (4).

4. Health sector employer. This part concerns the opinions of health care workers about the choices of effective strategies to prevent WPV. It consists of 34 closed questions with five main components and yes/no responses: (1) developed specific policies in WPV; (2) WPV policy development to deal with WPV incidents; (3) the benefit of these measures for reducing WPV; (4) organizational change during the last two years; and (5) respondent opinion concerning the impact of the organizational change on their daily work. For example: "What measures to deal with workplace violence exist in your workplace?" and "What measures would be helpful in your work setting?"

This structured questionnaire was reviewed and validated by five experts: three occupational nurse instructors and two occupational medicines. In this study, the content validity index was 1.00 and

the Cronbach's alpha coefficient of the worry level after WPV was 0.97 for the physical violence section. The results for the psychological violence section (verbal abuse, bullying/mobbing, sexual harassment) ranged between 0.87 to 0.95 and the KR – 20 coefficient of the health sector employer section was between 0.84 to 0.97.

Data Collection: Following participant consent, the researcher distributed the questionnaire package to eligible RNs in six clinical departments at each hospital. They were asked to return the questionnaire, including the signed consent form, at their convenience within a few weeks. To maintain confidentiality and anonymity, the questionnaire and consent form were returned separately in locked boxes.

Data Analysis: The data was analyzed by employing SPSS for Windows; basic descriptive statistics related to the frequency of recorded incidents were included in the study. A logistical regression was developed for two major types of violence, physical

and psychological (verbal abuse, bullying and sexual harassment) by applying individual factors, environmental factors, and organizational factors. A-p value of <0.05 was considered statistically significant.

Results

A total of 555 out of 596 questionnaires were returned. The age of participants ranged from 23–59 years. Of this group, 53.0% were over 35 years old, while 47.0% were below or equal to 35 years old or younger. The majority were female (95.1%). Most participants had completed their bachelor's degree (88.5%) and their work experience ranged from 1 to 36 years with a median of 11 years. Almost all were clinical nurses (98.0%), and their primary shifts were evening and night shift (43.4%), and day shift (29.0%). The majority of participants (84.0%) worried about WPV; of this group, over one-third reported a moderate level of worry about WPV (**Table 1**).

Table 1. Socio-demographic characteristics (n = 555)

| Data | Number | Percentage |
|--|--------|------------|
| Age (years) | | |
| ≤ 35 | 261 | 47.0 |
| > 35 | 294 | 53.0 |
| Range = 23–59 Median = 36.0, Mean (SD) = 37.1 (10.1) | | |
| Gender | | |
| Female | 528 | 95.1 |
| Male | 27 | 4.9 |
| Marital status | | |
| Single/widowed | 342 | 61.6 |
| Married | 213 | 38.4 |
| Educational level | | |
| Bachelor's degree | 491 | 88.5 |
| Master's degree | 64 | 11.5 |
| Clinical departments | | |
| Intensive care | 212 | 38.1 |
| Surgical and orthopedic | 100 | 18.0 |
| Operation room | 99 | 17.9 |
| Medicine | 96 | 17.3 |
| Emergency | 36 | 6.5 |
| Mental health | 12 | 2.2 |
| Working experience (years) | | |
| ≤ 10 | 275 | 49.5 |
| > 10 | 280 | 50.5 |
| Range = 1–36 Median = 11.0 Mean (SD) = 13.1 (9.4) | | |

Table 1. Socio-demographic characteristics (n = 555) (Cont.)

| Data | Number | Percentage |
|-------------------|--------|------------|
| Job position | | |
| Nurse manager | 11 | 2.0 |
| Clinical nurse | 544 | 98.0 |
| Primary shift | | |
| Evening & night | 241 | 43.4 |
| Day | 161 | 29.0 |
| Day & evening | 101 | 18.2 |
| Day & night | 38 | 6.9 |
| Evening | 8 | 1.4 |
| Night | 6 | 1.1 |
| Worried about WPV | | |
| Not worried | 89 | 16.0 |
| Worried | 466 | 84.0 |
| Mild | 269 | 57.7 |
| Moderate | 165 | 35.4 |
| Very worried | 32 | 6.9 |

WPV was classified as either physical or psychological violence. Psychological violence is divided into three categories: verbal abuse, bullying/mobbing and sexual harassment as follows:

1) Physical violence. Twelve percent of participants had been physically attacked in the workplace, and almost all was physical violence without a weapon (98.5%). The majority of the perpetrators were patients and their relatives. All physical attacks occurred in hospital; more incidents occurred on night shifts between 18.00–07.00 (68.1%) than on day shifts (31.9%), and the majority of incidents were perceived as preventable (85.1%); 40.3% of participants had injuries as a result of physical violence, with a quarter receiving formal treatment for injuries, but only a few participants took leave from their job (11.1%) (Table 2).

2) Psychological violence. Verbal abuse/verbal aggression was the most frequently reported form, at 50.3%, followed by bullying/mobbing (10.3%), and sexual harassment (1.6%). Some reported witnessing verbal abuse sometimes (35.1%) or infrequently (35.5%), and bullying/mobbing sometimes (43.9%).

Witnessing of sexual harassment was reported as occurring as infrequently as once a year (33.4%) to as frequently as almost all the time (22.2%). The majority of perpetrators of these three types were clinical nurses (44.8%–66.7%), patients, and relatives of patients (20.0–34.7%). Most of the incidents occurred inside a hospital (93.0% –100.0%). Over 50% of the victims believed that the incidents of violence were preventable (57.9%–100.0%) (Table 3).

3) Multiple logistic analyses results: Aged <35 years, direct care for adolescent and adult, numbers of department staff between 1–5 persons, numbers of department staff between 6–10 persons, having no procedure for WPV report, no improvements of physical surroundings, and no increased staff nurse numbers were correlated with physical violence after other risk factors were modified. Verbal abuse was associated with working experience less than 10 years, clinical nurse, provide direct care and nursing procedures, worried about WPV, and having no improvements physical surroundings (Table 4).

Prevalence and Risk Factors of Workplace Violence

Table 2. Reported perceived frequency of physical violence (n = 555)

| Data | Number | Percentage |
|---|--------|------------|
| Physically attacked in the workplace | | |
| No | 488 | 87.9 |
| Yes | 67 | 12.1 |
| Physically attacked | | |
| Without a weapon | 66 | 98.5 |
| With a weapon | 1 | 1.5 |
| Perpetrator ^a | | |
| Patients/ relatives of patient | 67 | 91.8 |
| Clinical nurse | 4 | 5.5 |
| Nurse manager/supervisors | 1 | 1.4 |
| Physician | 1 | 1.4 |
| Incident time ^a | | |
| Day shift | 30 | 31.9 |
| Night shift | 64 | 68.1 |
| The incident could be prevented | | |
| No | 10 | 14.9 |
| Yes | 57 | 85.1 |
| Injury as a result of physical violence | | |
| No | 40 | 59.7 |
| Yes | 27 | 40.3 |
| Formal treatment for injuries | | |
| No | 20 | 74.1 |
| Yes | 7 | 25.9 |
| Absence/stopped work | | |
| No | 24 | 88.9 |
| Yes | 3 | 11.1 |

Note: ^a Some nurses may have reported more than one incident.

Table 3. Reported perceived frequency of psychological violence (n = 555)

| Data | Type of Violence | VA n (%) | BM n (%) | SH n (%) |
|---------------------------------------|------------------|-------------|-------------|-------------|
| Psychologically attacked in workplace | | | | |
| No | | 276 (49.7) | 498 (89.7) | 546 (98.4) |
| Yes | | 279 (50.3) | 57 (10.3) | 9 (1.6) |
| Frequency of violence | | | | |
| Almost all the time | | 65 (23.3) | 7 (12.3) | 2 (22.2) |
| Sometimes | | 98 (35.1) | 25 (43.9) | 2 (22.2) |
| Infrequently | | 99 (35.5) | 15 (26.3) | 2 (22.2) |
| Once a year | | 17 (6.1) | 10 (17.5) | 3 (33.4) |
| Perpetrator ^a | | | | |
| Clinical nurse | | 235 (44.8) | 53 (66.3) | 6 (66.7) |
| Patients/relatives of patients | | 182 (34.7) | 16 (20.0) | 3 (33.3) |
| Nurse manager/supervisors | | 90 (17.2) | 7 (8.75) | 0 |
| Physicians | | 17 (3.3) | 4 (5.0) | 0 |
| Incident place ^a | | | | |
| Inside hospital | | 278 (93.0) | 56 (96.6) | 9 (100.0) |
| Outside hospital | | 21 (7.0) | 2 (3.4) | 0 |

Table 3. Reported perceived frequency of psychological violence (n = 555) (Cont.)

| Data | Type of Violence | VA n (%) | BM n (%) | SH n (%) |
|--|------------------|-------------|-------------|-------------|
| The incident could have been prevented | | | | |
| No | | 73 (26.2) | 24 (42.1) | 0 |
| Yes | | 206 (73.8) | 33 (57.9) | 9 (100.0) |

Note: ^a Some nurses may have reported more than one incident.

VA= Verbal abuse, BA=Bullying/mobbing, SH=Sexual harassment

Table 4. Risk factors for physical violence and verbal abuse (n = 555)

| Type of WPV Factors | Physical Violence (n= 67) | | | Verbal Abuse (n= 279) | | |
|---|---------------------------|----------|---------|-----------------------|----------|---------|
| | Odd ratio | 95%CI | P-value | Odd ratio | 95%CI | P-value |
| Individual factors | | | | | | |
| Age (years) | | | | | | |
| ≥ 35 years (reference) | | | | | | |
| < 35 years | 3.1 | 1.2-7.3 | .012 | - | - | - |
| Work experience | | | | | | |
| ≥ 10 years (reference) | | | | | | |
| < 10 years | - | - | - | 2.4 | 1.3-4.5 | .005 |
| Environment factors | | | | | | |
| Types of patients cared for | | | | | | |
| Adolescent and adult | | | | | | |
| No (reference) | | | | | | |
| Yes | 4.9 | 1.1-21.9 | .033 | - | - | - |
| Direct care and nursing procedures | | | | | | |
| No (reference) | | | | | | |
| Yes | - | - | - | 4.8 | 1.7-14.1 | .004 |
| Main professional co-workers | | | | | | |
| Clinical nurse | | | | | | |
| No (reference) | | | | | | |
| Yes | - | - | - | 6.4 | 2.7-15.0 | <.001 |
| Worried about WPV | | | | | | |
| Not worried (reference) | | | | | | |
| Worried | - | - | - | 2.5 | 1.4-4.2 | .001 |
| Organization factors | | | | | | |
| The number of staff in the work setting | | | | | | |
| > 10 persons (reference) | | | | | | |
| 6-10 persons | 4.9 | 1.6-15.1 | .005 | - | - | - |
| 1-5 persons | 6.4 | 2.1-19.3 | .001 | - | - | - |
| Procedure for WPV report | | | | | | |
| Yes (reference) | | | | | | |
| No | 4.3 | 1.8-10.3 | .001 | - | - | - |
| Improved surroundings | | | | | | |
| Yes (reference) | | | | | | |
| No | 2.6 | 1.4-5.0 | .003 | 4.2 | 2.3-7.5 | <.001 |
| Increased staff nurse numbers | | | | | | |
| Yes (reference) | | | | | | |
| No | 2.2 | 1.2-3.9 | .013 | - | - | - |

Discussion

Our results suggest that verbal and physical violence are a major concern in tertiary hospitals in northern Thailand and that verbal abuse was experienced more frequently (50.3%) than physical violence (12.1%). According to a study by Bigham in the United States, verbal and physical WPV in prehospital emergency staff was 67% and 26%, respectively.²⁷ In a study by Kaeser in Switzerland, physical and verbal WPV were reported as 56% and 92%, respectively.⁸ A similar study in Pakistan showed that 41.1% of WPV incidents resulted in physical assault and 79.6% in verbal abuse.⁹ The results of the systematic review and meta-analysis²⁸ showed that the prevalence of physical and verbal violence against nurses in Iran was 28% and 74%, respectively. Our results confirmed the findings of other studies which suggested that verbal abuse was the most common forms of WPV. A recent study in tertiary hospitals in Ghana also found that over 50% of the nurses had been verbally assaulted.¹¹ Similarly, case studies in tertiary hospitals in China demonstrated that the verbal abuse was very prevalent compared to the other types of workplace violence, which is consistent with our study.²⁷ These results were also consistent with studies in other countries that have found the most common type of WPV was verbal abuse.^{7,8,10,25,28,29}

The high prevalence of verbal violence may come about from aspects of the patient's condition. Most nurses said that verbal violence in patients' /relatives' stemmed from pain or restlessness, hallucination, agitation, substance misuse, a history of suicidal behaviour or an antisocial personality.³⁹ Moreover, the high workload and long working hours for nurses in clinical settings may be a factor: in the region working hours were often more than 48 hours per week and there were staffing shortages.⁹ Nurses working in understaffed wards have to deal with stressed and fractious colleagues²³ as well as the families of patients who are trying to get medical staff to focus on their concerns. As front line

nurses are working directly with patients they are more susceptible to WPV than the other health care workers. Front line nurses also deal with the immediate enquiries and complaints of patients and their families. The risk of verbal abuse increases when communication between clinicians and care recipients is poor or ineffective.²³ Similarly verbal abuse can result if patients are given insufficient information or misunderstand what they are told. This reason is consistent other studies.^{7,10,13} Therefore, this study has found that, similar to studies conducted in other countries, verbal violence has a high prevalence.

This study found that the main perpetrators of verbal abuse were clinical nurses (44.8%), followed by patients/ relatives of patients (34.7%). Respondents also reported that nurse colleagues were the primary perpetrators of psychological violence. Other studies reported that patients' families and nurses were the foremost perpetrators of verbal abuse.^{23,26} Regarding physical violence, this study found that patients and patients' relatives (91.8%) were the most frequent perpetrators of such violence. Again, this finding is consistent with prior studies.^{23,30} A possible explanation for the finding in this study is that workload and frequency of shift work may be contributing factors to RNs' experience of verbal abuse from nurse colleagues. This reason is consistent the other studies.^{7,20,31} A workload analysis of 12 public hospitals found that nurses' workload varied significantly across hospital types in this area of Thailand with nurses in tertiary hospitals having higher workloads than those in primary and secondary hospitals.³²

Incidents of physical violence in this study were lower than verbal abuse (12.1%). All settings in this study were high risk including the emergency room, operation room, surgical ward, medical ward, intensive care unit, and psychiatric settings. Clinical nurses had contact with high risk patients especially male and adolescent patients whose behavior was affected by their disease, or drugs and/or alcohol. In our study the main perpetrators of physical violence were patients and

their relatives (91.8%). Previous studies conducted in several countries in tertiary hospitals also reported that in most cases, patients and their relatives perpetrated physical violence.¹⁶ The unmet expectations of patients and relatives, whether reasonable or not were the most significant sources of WPV^{32,33} with perceptions about nurses' lack of proper care and disregard of their needs and lack of communication skills clear sources of violence.¹⁰ Our findings suggest that the presence of patients' relatives can be a source of tension for RNs and that limiting relatives' access to the patient may precipitate WPV.

The victims of physical violence were most frequently clinical nurses. This is due to the fact that clinical nurses provide direct patient care and are involved in close interaction with patients and their family. Nurses perceived that physical violence could also be precipitated by patients' mental status. This is also consistent with other studies.^{10,16}

At an individual level risk factors for physical aggression included age and experience. Participants aged ≤ 35 years had a three-fold higher risk for physical violence than those ≥ 35 or older. There was a statistically significant correlation between age and physical violence: as the age of health workers increased, the violence against them decreased. This finding is in accord with a study conducted in Southern Ethiopia that demonstrated that young nurses' lack of ability or experience in dealing with violence, and taking inadequate safety measures contributed to violence occurring.¹⁶ Our findings are consistent with further studies.²⁸ We found that younger RNs were more likely to be undervalued and to be given what they perceive as unreasonable responsibilities with inadequate support. Younger nurses may also fail to respond professionally to aggressive or unpredictable patient behaviors.^{7,33} Therefore, volatile situations are more likely to escalate into violence towards young nurses. In this way, younger nurses, perceiving higher risk, will report more incidents of physical threat or verbal abuse than older nurses.³⁴ Younger nurses, less experienced with reduced communication and conflict

resolution skills, suffer more WPV than highly empathetic veteran nurses.⁷ It is worth noting that these results regarding age might be related to work experiences; younger age means less experience.

One environmental level risk factor for physical aggression was providing direct nursing care for patients who are adolescent or adult: these participants had an almost five-fold greater risk of physical abuse compared to those who did not. The same findings were consistently found across high risk settings such as emergency departments.¹⁵

For verbal abuse the environmental level risk factors identified were direct nursing care and clinical nursing. Participants who provided direct nursing care had a five-fold greater risk for verbal abuse as compared to those that did not. This result is consistent with a study which reported that the primary risk factors for verbal abuse are direct contact with patients and their families.³³ Similarly, a Chinese study revealed that direct contact with patients was a prominent risk factor for WPV.³⁴ Participants who worked with clinical nurses resulted in a six-fold greater risk of verbal abuse compared with those that did not.³⁵ A mixed method study in tertiary hospitals identified nurses as the main perpetrators of certain forms of WPV compared to other nurses. This inter-collegial aggression was identified as a main work-related source of distress for nurses.³² Disturbingly research has shown that the perpetrators of verbal abuse towards nurses are most frequently nurses: in one study 63% were the victim's seniors, 44% were staff nurses and 19% were in senior leadership positions.³⁶ This could point to an association with a stressful work climate such as one where nurses are understaffed and overloaded, leading to interactions which result in abuse of colleagues.

Organizational level risk factors for physical aggression included the number of staff in the work setting, procedures for WPV reporting, improved surroundings, and increased staff numbers. Compared to teams of >10 people, participants who worked with staff teams of 1-5 had a six-fold risk of physical violence,

and teams of 6 – 10 had a five-fold higher risk. WPV's incidence among nurses with 1–5 employees was twice as high as those nurses who had >11 staff.³⁷ This finding is in accordance with those of previous studies that noted that the most frequently reported change to decrease the WPV incidences were “increasing staff numbers.” Increasing nurse-to-patient ratios were found to be a significant predictor of WPV among nurses.^{17,38} A qualitative study in Iran, exploring the experiences of triage nurses reported that lack of staff nurses was a predisposing factor for violence.³⁹

The settings without procedures for WPV reporting were associated with an approximately four-fold higher risk for physical violence as compared to those working without reporting procedures. The victims were unlikely to report WPV incidents, and nurses often felt unsupported by management in relation to WPV.¹⁷ Moreover, healthcare workers commonly believed that violence is merely “part of the job”.³¹ In that study, the main reason for not reporting incidents was that reporting was seen as useless and unimportant. Procedures for WPV reporting are essential to manage and prevent WPV.²³

The workplaces without security improvements had a three-fold greater risk for physical violence as compared to workplaces that did. The features of physical design included dirty organizational environment and the setting's comfort. Overpopulation, poor ventilation, filthy and noisy environments lead to higher rates of violence than those with good physical design characteristics.⁵ Another researcher found that while a better nursing environment in the healthcare environment was correlated with a reduction in the likelihood of physical and non-physical violence, there are different environmental aspects to consider for each type of violence.²⁵

Limitations

A limitation of this study is that the study population included only two tertiary hospitals in

Northern Thailand. Thus, generalization of the findings might be limited as a result of individual differences in workplace violence however, the sample size and inclusion of a range of different hospital departments were a strength of the study. In addition, the study did not adopt probability sampling for the participants recruitment. This may raise questions about the representativeness of the study population.

Conclusions and Implications for Nursing Practice

In order to perform their duties effectively, RNs must be provided with safe working conditions and afforded their basic human rights. Verbal abuse was the most commonly reported type of violence in this study and was more frequently caused by patients and co-workers. Therefore, to reduce WPV, violence must be avoided not only from patients, patient families, but also from colleagues. These results point out the significance of formulating preventive and management strategies for WPV in healthcare organizations.

Education in the prevention and management of violence and aggression should be given at undergraduate level in the nursing degree program, at orientation to new workplaces, and at regular intervals to all clinical professionals. Mentorship of younger RNs is important, as are effective systems to report WPV. Post-incident support, effective policies regarding WPV and bullying and harassment as well as the inclusion of violence prevention in occupational health and safety policies are vital, as are systems to ensure compliance in order for RNs to feel safe in their workplace so that they can have confidence that health service managers are fully supporting them. It is recommended that the nursing administration should actively address safe hospital policies for prevention of WPV, workforce management practices, systems for reporting incidents, and security measures for prevention. The involvement of Thailand Nursing and Midwifery Council (TNMC)

to consider supply, planning, education and employment and training is also recommended. The nursing policy group, has a role to play in policy formation and advocating for the rights of RNs in relation to WPV. This includes improving RNs' working conditions; campaigning for safe nurse-patient ratios; addressing staff shortages; supporting nurse victims and working to change the attitude that violence is an inevitable part of the job for RNs. In addition, the TNMC has a Baccalaureate Residency Training Program Policy to reduce WPV against younger RNs and this policy should be implemented throughout the country, including tertiary care hospitals.⁴⁰

Recommendations for Further Study

The main recommendation for further study would be to examine the effectiveness of primary prevention and interventions on WPV and the impact on increased knowledge, skill, and management of WPV using probability-based sampling in clinical RNs working in secondary and primary care hospitals.

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References

1. Martino VD. Relationship between work stress and workplace violence in the health sector: Geneva: ILO/ICN/WHO/PSI. C2003 [cited 2019 Oct 1]. Available from https://www.who.int/violence_injury_prevention/violence/interpersonal/en/WVstresspaper.pdf
2. Occupational Safety and Health Administration. Guidelines for prevention workplace violence for healthcare and social service workers. OSHA Publication 3148-01R. Washington DC: U.S. Department of Labor. C2016 [cited 2016 March 16]. Available from <https://www.osha.gov/Publications/osh3148.pdf>
3. Phillips JP. Workplace violence against health care workers in the United states. *N Engl J Med.* 2016; 374 (17): 1661-9. DOI:10.1056/NEJMra1501998
4. Chang HE, Cho SH. Workplace violence and job outcomes of newly licensed nurses. *Asian Nurs Res (Korean Soc Nurs Sci).* 2016; 10 (4): 271-6. DOI:10.1016/j.anr.2016.09.001
5. Arnetz J, Hamblin LE, Sudan S, Arnetz B. Organizational determinants of workplace violence against hospital workers. *J Occup Environ Med.* 2018; 60 (8):693 -9. DOI:10.1097/JOM.0000000000001345
6. Mantzouranis G, Fafliora E, Bampalis VG, Christopoulou I. Assessment and analysis of workplace violence in a Greek tertiary hospital. *Arch Environ Occup Health.* 2015;70 (5): 256-64. DOI:10.1080/19338244.2013.879564
7. Stewart MW. Workplace violence against nurses. *J Perianesth Nurs.* 2018; 33 (3): 356-9. Available from: <https://doi.org/10.1016/j.jopan.2018.03.002>
8. Cheung T, Lee PH, Yip PSF. Workplace violence toward physicians and nurses: prevalence and correlates in Macau. *Int J Environ Res Public Health.* 2017;14 (8): 1-15. DOI: 10.3390/ijerph14080879
9. Patcharatanasan N, Lertmaharit S. The prevalence characteristics and related factors of workplace violence in healthcare workers in emergency departments of government hospitals in region 6 health provider. *JPMAT.* 2018; 8 (2): 212-25. (in Thai).
10. Niu S-F, Kuo S-F, Tsai H-T, Kao C-C, Traynor V, Chou K-R. Prevalence of workplace violent episodes experienced by nurses in acute psychiatric settings. *PLoS One.* 2019; 14 Available from: <https://doi.org/10.1371/journal.pone.0211183>
11. Bofo IM, Hancock P, Gringart E. Sources, incidence and effects of non-physical workplace violence against nurses in Ghana. *Nurs Open.* 2016; 3 (2): 99-109. DOI: 10.1002/nop2.43
12. Semordzie D, Asamani, L, Fia SD, Amponsah MO. Workplace violence: the ripple ecological effects. *Br J Psychol Res.* 2017; 5 (1):1 - 20. Available from: <http://www.researchgate.net/publication/311947894>
13. Spector PE, Zhou ZE, Che XX. Nurse exposure to physical and nonphysical violence, bullying, and sexual harassment: a quantitative review. *Int J Nurs Stud.* 2014; 51(1):72-84. DOI:10.1016/j.ijnurstu.2013.01.010.

Prevalence and Risk Factors of Workplace Violence

14. International Labour Office, International Council of Nurses, World Health Organization, & Public Services International. Framework guidelines for addressing workplace violence in the health sector. Geneva: WHO. C2003 [cited 2019 Oct 1]. Available from http://www.who.int/violence_injury_prevention/violence/interpersonal/en/WV_managementvictimspaper.pdf
15. News-Adeyi G, Helitzer DL, Caulfield LE, Bronner Y. Theory and practice: applying the ecological model to formative research for a WIC training program in New York State. *Health Educ Res.* 2000; 15 (3): 283-91. DOI: 10.1093/her/15.3.283
16. Fute M, Mengesha ZB, Wakgari N, Tessema GA. High prevalence of workplace violence among nurses working at public health facilities in Southern Ethiopia. *BMC Nurs.* 2015; 14: 9-16. DOI: 10.1186/s12912-015-0062-1.
17. Nowrouzi-Kia B, Isidro R, Chai E, Usuba K, Chen A. Antecedent factors in different types of workplace violence against nurses: A systematic review. *Aggr Violent Behav.* 2019; 44: 1-7. Available from: <https://doi.org/10.1016/j.avb.2018.11.002>
18. Alyaemni A, Alhudaithi H. Workplace violence against nurses in the emergency departments of three hospitals in Riyadh, Saudi Arabia: A cross-sectional survey. *Nursing Plus Open.* 2016; 2: 35-41. Available from: <https://doi.org/10.1016/j.npls.2016.09.001>
19. Villafranca A, Hamlin C, Enns S, Jacobsohn E. Disruptive behaviour in the perioperative setting: a contemporary review. *Can J Anaesth.* 2017; 64 (2): 128-40. DOI: 10.1007/s12630-016-0784-x
20. Castronovo MA, Pullizzi A, Evans S. Nurse bullying: a review and a proposed solution. *Nurs Outlook.* 2016; 64 (3): 208-14. DOI: 10.1016/j.outlook.2015.11.008
21. Koh WMS. Management of work place bullying in hospital: A review of the use of cognitive rehearsal as an alternative management strategy. *Int J Nurs Sci.* 2016; 3 (2): 213-22. Available from: <https://doi.org/10.1016/j.ijnss.2016.04.010>
22. Abdellah RF, Salama KM. Prevalence and risk factors of workplace violence against health care workers in emergency department in Ismailia, Egypt. *Pan Afr Med J.* 2017; 26:21-31. DOI:10.11604/pamj.2017.26.21.10837
23. Cheung T, Yip PSF. Workplace violence towards nurses in Hong Kong: prevalence and correlates. *BMC Public Health.* 2017; 17 (1): 196. DOI:10.1186/s12889-017-4112-3
24. Cho OH, Cha KS, Yoo YS. Awareness and attitudes towards violence and abuse among emergency nurses. *Asian Nurs Res.* 2015; 9 (3): 213-8. Available from: <https://doi.org/10.1016/j.anr.2015.03.003>
25. Ahmad M, Al-Rimawi R, Masadeh A, Atoum M. Workplace violence by patients and their families against nurses: literature review. *Int J Nurs Terminol Classif.* 2015; 2 (4): 46-55. Available from: <https://www.researchgate.net/publication/280525324>
26. Daniel WW. (1999). *Biostatistics: a foundation for analysis in the health sciences* (7th ed.). New York: John Wiley & Sons.
27. Jiao M, Ning N, Li Y, Gao L, Cui Y, Sun H, et al. Workplace violence against nurses in Chinese hospitals: a cross-sectional survey. *BMJ Open.* 2015; 5 (3): e006719. DOI:10.1136/bmjopen-2014-006719
28. Jaradat Y, Nielsen MB, Kristensen P, Nijem K, Bjertness E, Stigum H, et al. Workplace aggression, psychological distress, and job satisfaction among Palestinian nurses: a cross-sectional study. *Appl Nurs Res.* 2016; 32: 190-8. DOI:10.1016/j.apnr.2016.07.014.
29. Stone T, McMillan M, Hazelton M, Clayton EH. Wounding Words: Swearing and Verbal Aggression in an Inpatient Setting. *Perspect Psychiatr Care.* 2011; 47 (4): 194-203. DOI: 10.1111/j.1744-6163.2010.00295.x
30. Tonso MA, Prematunga RK, Norris SJ, Williams L, Sands N, Elsom SJ. Workplace violence in mental health: A Victorian Mental Health Workforce Survey. *Int J Ment Health Nurs.* 2016; 25 (5): 444-51. Available from: <https://doi.org/10.1111/inm.12232>
31. Stevenson KN, Jack SM, O'Mara L, LeGris J. Registered nurses' experiences of patient violence on acute care psychiatric inpatient units: an interpretive descriptive study. *BMC Nurs.* 2015; 14: 35. DOI: 10.1186/s12912-015-0079-5
32. Sawaengdee K, Ruangrattanarai W, Hanvoravongchai P, Gajeena A. Analyses of workload and productivity of 12 public hospital nurses in region 2 of Thailand. *J Health Sci.* 2015; 24 (4): 741-50. (in Thai).
33. Wei CY, Chiou ST, Chien LY, Huang N. Workplace violence against nurses—prevalence and association with hospital organizational characteristics and health-promotion efforts: Cross-sectional study. *Int J Nurs Stud.* 2016; 56: 63-70. DOI: 10.1016/j.ijnurstu.2015.12.012.

34. Li P, Xing K, Qiao H, Fang H, Ma H, Jiao M, et al. Psychological violence against general practitioners and nurses in Chinese township hospitals: incidence and implications. *Health and Quality of Life Outcomes*. 2018; 16 (1): 117. DOI: 10.1186/s12955-018-0940-9.
35. Koh WMS. Management of workplace bullying in hospital: a review of the use of cognitive rehearsal as an alternative management strategy. *Int J Nurs Sci*. 2016; 3 (2): 213- 22. Available from: [https:// doi. org/10.1016/j.ijnss.2016.04.010](https://doi.org/10.1016/j.ijnss.2016.04.010)
36. Berry PA, Gillespie GL, Gates D, Schafer J. Novice nurse productivity following workplace bullying. *J Nurs Scholarsh*. 2012; 44 (1): 80-7. DOI:10.1111/j.1547-5069.2011.01436.x
37. Shi L, Zhang D, Zhou C, Yang L, Sun T, Hao T, et al. A cross-sectional study on the prevalence and associated risk factors for workplace violence against Chinese nurses. *BMJ Open*. 2017; 7 (6): e013105. DOI:10.1136/bmjopen-2016-013105
38. Tiruneh BT, Biffitu BB, Tumebo AA, Kelkay MM, Anlay DZ, Dachew BA. Prevalence of workplace violence in Northwest Ethiopia: a multivariate analysis. *BMC Nurs*. 2016; 15:42. DOI:10.1186/s12912-016-0162-6.
39. Najafi F, Fallahi-Khoshknab M, Ahmadi F, Dalvandi A, Rahgozar M. Antecedents and consequences of workplace violence against nurses: A qualitative study. *J Clin Nurs*. 2018; 27 (1-2): e116-e28. DOI:10.1111/jocn.13884
40. Thanomlikhit C, Kheawwan P. Nurse Residency Coordinator: important of role to development nursing expertise. *TJNMP*. 2018; 5 (2): 96-110. (in Thai).

ความชุกและปัจจัยเสี่ยงของความรุนแรงในที่ทำงานของพยาบาลวิชาชีพ โรงพยาบาลตติยภูมิ

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บทคัดย่อ: ความรุนแรงในที่ทำงานในองค์กรสุขภาพเป็นปัญหาด้านอาชีวอนามัยที่สำคัญระดับโลก ซึ่งพยาบาลเป็นกลุ่มเสี่ยงสูงต่อการเกิดความรุนแรงในที่ทำงาน การศึกษาวิจัยเชิงพรรณนาครั้งนี้มีวัตถุประสงค์ เพื่อศึกษาความชุกของการเกิดความรุนแรงในที่ทำงาน และปัจจัยเสี่ยงของความรุนแรงในที่ทำงานในพยาบาลวิชาชีพที่ปฏิบัติงานในโรงพยาบาลตติยภูมิเขตภาคเหนือตอนบน ประเทศไทย ความรุนแรงในที่ทำงาน หมายถึงความรุนแรงด้านร่างกายและความรุนแรงด้านจิตใจ ความรุนแรงด้านจิตใจ ประกอบด้วยความรุนแรงด้านวาจา ถูกกลั่นแกล้ง/ก่อกวน และถูกลวนลามทางเพศ กลุ่มตัวอย่างคือ พยาบาลวิชาชีพจำนวน 555 ราย คัดเลือกแบบเฉพาะเจาะจง รวบรวมข้อมูลโดยใช้แบบสอบถามที่ดัดแปลงจากแบบสอบถามมาตรฐานที่พัฒนาโดย ILO/ICN/WHO/PSI (2003) วิเคราะห์ข้อมูลโดยใช้การวิเคราะห์ความถดถอยแบบพหุคูณ ผลการวิจัย พบว่า อัตราความชุกการเกิดความรุนแรงทางด้านร่างกายในรอบ 12 เดือนที่ผ่านมาพบร้อยละ 12.1 ขณะที่ความชุกของการเกิดความรุนแรงด้านจิตใจ ได้แก่ ความรุนแรงด้านวาจาร้อยละ 50.3 ถูกกลั่นแกล้ง/ก่อกวนร้อยละ 10.3 และถูกลวนลามทางเพศร้อยละ 1.6 ปัจจัยเสี่ยงความรุนแรงทางด้านวาจาที่สำคัญ คือ พยาบาลวิชาชีพที่รับผิดชอบดูแลให้การพยาบาลโดยตรง สถานที่ทำงานไม่มีความปลอดภัยเพียงพอ ความกังวลต่อความรุนแรงในที่ทำงาน และประสบการณ์การทำงานที่น้อยกว่า 10 ปี ปัจจัยเสี่ยงความรุนแรงด้านร่างกายที่สำคัญ ได้แก่ ภาระงานในการดูแลผู้ป่วยต่อพยาบาลสูง การให้การพยาบาลผู้ป่วยกลุ่มวัยรุ่นและผู้ใหญ่ การขาดระบบการรายงาน อายุน้อยกว่า 35 ปี และสถานที่ทำงานไม่มีความปลอดภัยเพียงพอ

ผลการศึกษาเสนอแนะให้ผู้จัดการด้านการดูแลสุขภาพ ควรมีการพัฒนาและนำใช้นโยบายด้านความปลอดภัยในโรงพยาบาล ระบบการรายงานอุบัติการณ์ความรุนแรงในที่ทำงาน และมาตรการรักษาความปลอดภัยเพื่อป้องกันความรุนแรงในที่ทำงานที่เกิดจากผู้ป่วย ญาติผู้ป่วยและการถูกกลั่นแกล้งหรือก่อกวนจากเพื่อนร่วมงาน รวมทั้งการให้การศึกษาระบบเกี่ยวกับการจัดการความรุนแรงในที่ทำงาน และความก้าวร้าวตลอดจนการถูกกลั่นแกล้งหรือก่อกวนจากผู้ป่วย

Pacific Rim Int J Nurs Res 2020; 24(4) 538-552

คำสำคัญ: การกลั่นแกล้ง ก่อกวน พยาบาลวิชาชีพ โรงพยาบาลตติยภูมิ ความรุนแรงด้านวาจา ความรุนแรงในที่ทำงาน

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