Chula Med J Vol. 64 No. 4 October - December 2020;409-415 DOI : 10.14456/clmj.2020.52

Original article

Prevalence and related factors of workplace violence in subdistrict health promoting hospital in 10th regional health of Thailand

Piyapat Pandee, Wiroj Jiamjarasrangsi*

Department of Preventive and Social Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

Background: Hospitals are one of the workplaces where violence occurs frequently. Subdistrict health promoting hospital is the first checkpoint of health services and the closest contact point to local population, but there is no information about workplace in this field.

Objective: This study aimed to evaluate prevalence and related factors of workplace violence among healthcare workers.

Methods: This cross-sectional study was conducted in subdistrict health promoting hospital in 10th regional health of Thailand, during May to June 2019. A total of 395 samples were assessed by a self-administered questionnaire adapted from the survey questionnaire about workplace violence in health sector jointly proposed by the International Labour Office (ILO), World Health Organization (WHO), International Council of Nurses (ICN) and Public Services International (PSI). The prevalence of workplace violence were presented in term of percentage while the results of its related factors were presented by odds ratios (OR) and 95% confidence interval (CI).

Results: The prevalence of workplace violence was 32.2%. Among this, verbal violence was the most common (92.9%), followed by sexual violence (11.1%) and physical violence (6.3%) respectively. Concerning factors related to workplace violence, widows/ divorced/separated marital status was related to lower frequency of the event when compared to those with single status [OR = 0.35 (95% CI = 0.13 - 0.94)]. In contrary, Bachelor's degree of education level was associated with higher frequency of the event when compared to those with lower level of education [OR = 1.98 (95% CI = 1.02 - 3.84)].

Conclusion: The prevalence of workplace violence among healthcare workers in subdistrict health promoting hospitals is common. Therefore, relevant measures should be implemented to ameliorate this problem and improve work morale of the local healthcare workforce.

Keywords: Workplace violence, health promoting hospital, 10th regional health of Thailand.

Workplace violence is an important issue that can happen all the time in any occupation and at any place.[1] Hospitals are one of workplaces where violence usually occurs.[2 - 4] Factors that cause workplace violence in general are those related to service users, workplace environment, employee and even crimes. In addition, there are also factors specifically for healthcare work including miscommunication, treatment result, waiting time and intoxicated service users etc.[5]

***Correspondence to: Wiroj Jiamjarasrangsi**, Department of Preventive and Social Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok10330, Thailand.
E-mail: wjamja@gmail.com
Received: September 27, 2019
Revised: November 8, 2019
Accepted: December 13, 2019

The World Health Organization (WHO) reported that healthcare workers have high risks of confronting workplace violence with the prevalence ranged from 8.0 – 38.0% globally.[6] Information specifically for Thailand was also included in this report with the prevalence of 54.0% among hospitals in Chiangmai Province.[7]

Hospitals in Thailand can be categorized into several groups based on care providing potentials and ranged from university hospitals, regional hospitals, general hospitals, community hospitals down to subdistrict health promoting hospitals. In this study, subdistrict health promoting hospitals, which are highest in number and the most widespread into local communities nationwide, are examined. Health promoting hospitals are the first checkpoint of medical

services and at present, no data about workplace violence in this field are available before. Specifically, the aims of this research were to quantify the prevalence of and examine factors related to workplace violence in subdistrict health promoting hospitals under the jurisdiction of the 10th Regional Health of Thailand. The obtained data can be applied to raise awareness and prompt appropriate prevention measure to properly mitigate this problem.

Materials and methods

Study population

A cross-sectional study was conducted among the total of 827 healthcare workers in subdistrict health promoting hospitals locating in Mukdahan, Yasothon, Amnat Charoen, Sisaket and Ubonratchathani Provinces, which are under the jurisdiction of the 10th Regional Health. Data were collected from May to June 2019.

A sample size of 382 was required to ensure an acceptable margin of error within 5.0%. The formula applied was $n = (1.96)^2 p (1-p) / (0.05)^2$, where $P = 0.54$ was reported as the current prevalence of workplace violence in Chiangmai[7]; 0.05 indicated the acceptable margin of error (5.0%). Multistage random sampling was carried out by treating each hospital as the sampling unit, with 133 hospitals were selected. Then all healthcare workers with at least one-year work experience in the selected hospital and agreed to subject were recruited as the study subjects. At last, of all 726 eligible healthcare workers, 395 subjects were participated with the response rate of 54.4%. The ethical approval was sought from the Ethics Committee of Faculty of Medicine, Chulalongkorn University in 2019 before the study was conducted.

Data collection

A self-administered questionnaire was used in the data collection. It was developed by adapting from the survey questionnaire about workplace violence in health sector which was jointly proposed by the International Labour Office (ILO), World Health Organization (WHO), International Council of Nurses (ICN) and Public Services International (PSI). The content of the questionnaire included information about characteristic of subjects, characteristic and related factors of violence.

Statistical analysis

Quantitative data such as age, work experience, average weekly work time, were presented by using mean ± standard deviation (SD), while qualitative data i.e., sex, education, marital status, position and job description, shift work and types of hospital as well as experience of confronting violence, type of violence, were presented by frequency and percentage. Prevalence of workplace violence was calculated by dividing the number of those experiencing violence with all study subjects and presented in percentage. Then, the associated factors of workplace violence were initially examined by the bivariate analysis was performed by using unpaired *t* - test and Chi square respectively for the quantitative and qualitative independent variables. Later, crude and adjusted odds ratios (OR) as well as the corresponding 95% \confidence intervals (CI) were determined by logistic regression analyses and used as the measures of association. The statistically significant level was set at $P < 0.05$. SPSS (Statistical Package for Social Science) version 22.0 was used in all data analyses.

Results

The mean of age subjects was 41.6 ± 10.1 years old. Most of the subjects were married (64.5%), had achieved a university degree (mostly bachelor's degree). Concerning job position, most were officers (73.1%), followed by directors (15.2%), and nurses accounted for 25.9% of the subjects. Average work experience was 9.3 years, with the groups of 1 to 5 and 6 to 10 years of work experience accounted for 34.2 and 33.4% respectively. Proportions of subjects from small, medium, and large-size health promoting hospitals were comparable, with approximately 1/3 each. The average work time was 43.6 hours per week. Most subjects had direct interaction with patients (96.2%). A summary of the subject's characteristics is shown in Table 1.

There were 127 subjects who had experienced workplace violence, with the overall prevalence of 32.2% (127/395). Among these, verbal violence was the most common (92.9% or 117/127), followed by sexual violence (11.1% or 14/127) and physical violence (6.3% or 8/127) respectively. The overall prevalence of workplace violence was quite high among male than female, among single group than other groups, among shift workers and supervisor positions. The prevalence was comparable according to gender, age, married status, education level, position, work experience and shift work are shown in Table 2.

In the examining of potential risk factor of workplace violence, crude analysis showed that marital status and educational level were significantly associated with workplace violence. Compared with those in the single group, those who were married and those who were widowed/ divorced/separated had lower probability of experiencing workplace violence [OR (95%CI) = 0.53 (0.33 - 0.85) and 0.38 (0.16 - 0.90), respectively]. Concerning educational level, subjects with Bachelor's degree and those with higher than Bachelor's degree had higher probability of experiencing workplace violence [OR (95% CI) = 1.98 (1.10 - 3.57) and 2.08 (0.89 - 4.83)] compared to those with lower educational level, although statistically significance was not achieved for the latter group (Table 2). The result from multivariate analysis also was quite consistent with that of crude analysis, with no materially altered in the magnitudes of the ORs (Table 3).

Table 1. Summary of subject characteristics.

Characteristics	n (%)	Characteristics	n (%)
Gender	**(n = 395)**	**Position in hospital**	**(n = 394)**
Male	91 (23.0)	Director	60 (15.2)
Female	304 (77.0)	Supervisor	10 (2.5)
		Worker	288 (73.1)
		Others (i.e. part time employee)	36 (9.1)
Age (years)	**(n = 393)**	**Work experience in health promoting hospital (years)**	**(n = 395)**
≤ 30	71 (18.1)		
31 - 40	102 (25.9)		
41 - 50	134 (34.1)	1 – 5	135 (34.2)
51 - 60	86 (21.9)	6 – 10	132 (33.4)
Mean ± SD	41.58 ± 10.1	11 – 15	70 (17.7)
		16 – 20	26 (6.6)
		≥ 20	32 (8.1)
		Mean ± SD	9.33 ± 7.36
Marital status	**(n = 394)**	**Size of hospital**	**(n = 395)**
Single	104 (26.4)	Small	120 (30.4)
Married	254 (64.5)	Medium	142 (35.9)
Widows/divorced/separated	36 (9.1)	Large	133 (33.7)
Education level	**(n = 395)**	**Shift worker status**	**(n = 391)**
Lower than bachelor	80 (20.3)	No	180 (46.0)
Bachelor's degree	276 (69.9)	Yes	211 (54.0)
Higher than bachelor	39 (9.9)		
Occupation	**(n = 390)**	**Working hours per week (hours)**	**(n = 350)**
Nurse	101 (25.9)		182 (52.0)
Public health officer	132 (33.9)	≤ 40	168 (48.0)
Dental public health officer	41 (10.5)	> 40	43.6 ± 18.8
		Mean ± SD	
Traditional Thai medicine doctor	16 (4.1)		
Others	96 (24.6)		

Table 2. Prevalence of workplace violence according to the subjects' characteristics and the corresponding crude odds ratios.

Variables	n	Workplace violence n (%)	Crude OR (95% CI)	*P* - value
Gender (n = 395)				
Male	91	32 (35.2)	1.00	0.483
Female	304	95 (31.2)	0.84 (0.51 - 1.37)	
Age (n = 393)				
≤ 30 years	71	25 (35.2)	1.00	0.208
31 - 40 years	102	39 (38.2)	1.14 (0.61 - 2.14)	
41 - 50 years	134	41 (30.6)	0.81 (0.44 - 1.49)	
51 – 60 years	86	21 (24.4)	0.59 (0.30 - 1.19)	
Married status (n = 394)				
Single	104	45 (43.3)	1.00	0.012
Married	254	73 (28.7)	0.53 (0.33 - 0.85)	
widows/divorced/separated	36	8 (22.2)	0.38 (0.16 - 0.90)	
Education level (n = 395)				
Lower than bachelor's degree	80	17 (21.2)	1.00	0.069
Bachelor's degree	276	96 (34.8)	1.98 (1.10 - 3.57)	
Higher than bachelor's degree	39	14 (35.8)	2.08 (0.89 - 4.83)	
Position in hospital	**(n = 394)**			
Director	60	14 (23.3)	1.00	0.061
Supervisor	10	5 (50.0)	3.29 (0.83 - 13.01)	
Worker	288	101 (35.1)	1.78 (0.93 - 3.38)	
Others (i.e. part time employee)	36	7 (19.4)	0.79 (0.29 - 2.20)	
Work experience in health promoting hospital (years)	**(n = 395)**			
1 – 5	135	39 (28.9)	1.00	0.435
6 – 10	132	49 (37.1)	1.45 (0.87 - 2.43)	
11 – 15	70	23 (32.9)	1.21 (0.65 - 2.24)	
16 – 20	26	9 (34.6)	1.30 (0.54 - 3.17)	
≥ 20	32	7 (21.9)	0.69 (0.28 - 1.72)	
Shift worker status	**(n = 391)**			
No	180	51 (28.3)	1.00	0.128
Yes	211	75 (35.5)	1.40 (0.91 - 2.14)	

Table 3. Multiple logistic regression analytical results for workplace violence by various factors.

Variables	Adjusted OR (95% CI)
Age	
≤ 30 years	1.00
31 - 40 years	1.36 (0.66 - 2.82)
41 - 50 years	1.05 (0.47 - 2.35)
51 – 60 years	0.98 (0.37 - 2.60)
Married status	
Single	1.00
Married	0.64 (0.35 - 1.17)
Widows/divorced/separated	0.35 (0.13 - 0.94)
Education level	
Lower than bachelor's degree	1.00
Bachelor's degree	1.98 (1.02 - 3.84)
Higher than bachelor's degree	2.18 (0.84 - 5.70)
Position in health promoting hospitals	
Director	1.00
Supervisor	3.46 (0.77 - 15.55)
Worker	1.75 (0.77 - 3.96)
Others (i.e. part time employee)	1.05 (0.32 - 3.47)

Discussion

This study demonstrated two main results. First, the prevalence of workplace violence in healthcare workers at subdistrict health promoting hospital in 10th regional health, Thailand was 32.2%. Among this, verbal violence was the most common (92.9%), followed by sexual violence (11.1%) and physical violence (6.3%), respectively. Second, healthcare workers in Bachelor's degree had a significant risk for workplace violence compared with lower educational level.

Our reported prevalence was within the estimation of the World Health Organization (WHO) .[6] It was however lower than those reported in other studies in Thailand. For example, Sripichyakan K. reported that the prevalence of workplace violence among personnel of the public hospitals in Chiangmai Province was 54.0%[7], while Patcharatanason N. reported the prevalence of 61.7% among emergency room personel[5], Wanphen Saimai reported the prevalence of 84.7% among emergency nurses.[8] Our reported prevalence was also lower than those in other countries, which the prevalence ranged from 44.0 – 83.0%.[9 - 16] Possible explanation for the difference was that the other studies were conducted in large-scale hospitals with busier service environment, especially in the emergency room and more crowded both in term of the numbers of patients and hospital personnel, while ours was conducted in primary care setting with much lower service volume and fewer healthcare workers involved. However in term of the frequency among the three types of workplace violence, our finding that verbal violence was the most common (92.9% of all workplace violence) was in agreeable with most studies both in Thailand (including Patcharatanason N, 94.2%)[5] and in other countries (such as Fafliora E, Greece, 98.0% [9] and Schablon A, Germany, 94.0%. [12]

Although most of our findings did not find a significant relationship between factors and workplace violence, there were still found some factors that tend to be consistent with other research such as age groups and gender. Age was not related to violence statistically; the younger age groups including the group with age less than 30 years and the group of 31 - 40 years faced more violence than the group with older age. It is agreeable with previous studies that young people faced more violence than the older ones [10, 13] due to the fact that when people get older, they have a higher maturity level, and could handle violence better. As to gender factor, males faced violence of 35.2%, when compared to females, but without statistical difference. Nevertheless, it may be because of less proportion of male samples compared with females. Previous studies indicated that females faced more violence than males [9, 17], and males had more violence than females in some studies.[10] Therefore, it cannot be concluded.

In some studies, the relationship between variables and violence was different from this study, for example, work experience. Previous studies showed that highly experienced personnel had better skills to deal with violence.[9, 18] Average weekly work time was different from the study of Patcharatanason N.[5] indicating that the samples with more average weekly work time had more violence. Size of hospitals was not related with violence probably because health promoting hospitals have the same potential in caring for patients as in larger hospitals. This study indicated that most violence occurred during the day, which was dissimilar from previous studies that most violence happened late at night.[10, 13, 18] This could be due to the fact that fewer patients visited health promoting hospital after service hours, which is different from other studies that examined large hospitals that provided services 24 hours.

Our study found the group with widowed/divorced/separated status had workplace violence for 0.35 times (95% CI = 0.13 - 0.94) compared with those who are single. This is different from previous studies that did not find a relationship between marital status and violence.[5, 10] This may be explained that this group of people are usually older than singles. Therefore, there will be a reason similar to the age that increases with the tendency to find less violence. Additionally, the samples with education of Bachelor's degree faced higher violence for 1.98 times compared with lower group owing to officers with lower education usually being in a position with not much responsibility and less contact with patients. This differs from the study of Xing K, et al. that those with lower education faced more violence than the educated 1.28 times.[19] It can be seen that in the study of violence, most of the high risk group are people who have high-responsibility tasks. There should be coping mechanism to reduce the occurrence of violence by focusing on risk groups such as nurses or public health officers.

A strength of this study is that it is the first research examining prevalence and factors relevant to workplace violence in health promoting hospitals as primary hospitals in Thailand.

The study has some limitations. First, the cross-sectional nature of this study limits the assessment of causality. Second, data were collected with a self-administered questionnaire that the respondents may not give some information completely or may have recall bias or provide answers deviated from the samples possibly because of concern about effects on themselves and hospitals.

Conclusion

This study found that the prevalence of workplace violence was 32.2%. The most common was verbal violence, followed by sexual and physical violence respectively. Concerning factors related to workplace violence, widows/divorced/separated marital status was related to lower frequency of the event when compared to those with single status. In contrary, bachelor's degree educational level was associated with higher frequency of the event when compared to those with lower level of education; it could be related to higher positions or responsibilities. No working factors were significantly associated with workplace violence.

The prevalence of workplace violence was common even healthcare workers in sub-district health promoting hospital. Therefore, relevant measures should be implemented to ameliorate this problem and improve work morale of the local healthcare workforce.

References

1. U.S. Department of Labor Occupational Safety and Health Administration. What is workplace violence? [Internet]. 2002 [cited 2018 Jan 15]. Available from: https://www.osha.gov/OshDoc/data_General_Facts/factsheet-workplace-violence.pdf.
2. Hartley D, Doman B, Hendricks SA, Jenkins EL. Non-fatal workplace violence injuries in the United States 2003-2004: a follow back study. Work 2012;42: 125-35.
3. Edwards JA, Buckley P. Customer-perpetrated work-related violence: prevalence and trends in Britain. Occup Med (Lond) 2016;66:522-7.
4. Aytac S, Bozkurt V, Bayram N, Yildiz S, Aytac M, Akinci FS, et al. Workplace violence: a study of Turkish workers. Int J Occup Saf Ergon 2011;17: 385-402.
5. Patcharatanason 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. Journal of Preventive Medicine Association of Thailand 2017;2:14.
6. World Health Organization. Violence against Health Workers [Internet]. [cited 2018 Nov 15].Available from: https://www.who.int/violence_injury_prevention/violence/workplace/en/.
7. Sripichyakan K, Thungpunkum P, Supavititpatana B. Workplace Violence in the Health Sector A Case Study in Thailand [Internet]. 2003 [cited 2018 Nov15]. Available from: https://www.who.int violence_injury_prevention/violence/interpersonalenWVcountrystudy thailand.pdf?ua=1.
8. Saima W, Thanjira S, Phasertsukjinda N. Workplace Violence and its Management by Nursing Personnel in Emergency Department. Rama Nurs J 2010;1:16.
9. Fafliora E, Bampalis VG, Zarlas G, Sturaitis P, Lianas D, Mantzouranis G. Workplace violence against nurses in three different Greek healthcare settings. Work 2015; 53:551-60.
10. Sun P, Zhang X, Sun Y, Ma H, Jiao M, Xing K, et al. Workplace Violence against Health Care Workers in North Chinese Hospitals: A Cross-Sectional Survey. Int J Environ Res Public Health 2017;14:96.
11. Kumar M, Verma M, Das T, Pardeshi G, Kishore J, Padmanandan A. A Study of Workplace Violence Experienced by Doctors and Associated Risk Factors in a Tertiary Care Hospital of South Delhi, India. J Clin Diagn Res 2016;10:Lc06-lc10.
12. Schablon A, Wendeler D, Kozak A, Nienhaus A, Steinke S. Prevalence and Consequences of Aggression and Violence towards Nursing and Care Staff in Germany- A Survey. Int J Environ Res Public Health 2018;15:1-18.
13. Alsaleem SA, Alsabaani A, Alamri RS, Hadi RA, Alkhayri MH, Badawi KK, et al. Violence towards healthcare workers: A study conducted in Abha City, Saudi Arabia. J Family Community Med 2018;25: 188-93.
14. Niu SF, Lee TY, Tsai JC, Hsing SC, Wu SC, Kao CC. Workplace Violence Against Nurses in Northern Taiwan: A Cross-Sectional Study. Hu Li Za Zhi 2018; 65:44-54.
15. Cheung T, Yip PSF. Workplace violence towards nurses in Hong Kong: prevalence and correlates. BMC Public Health 2017;17:196.
16. Hasan MI, Hassan MZ, Bulbul MMI, Joarder T, Chisti MJ. Iceberg of workplace violence in health sector of Bangladesh. BMC Res Notes 2018;11:702.
17. Abed M, Morris E, Sobers-Grannum N. Workplace

violence against medical staff in healthcare facilities in Barbados. Occup Med (Lond) 2016;66:580-3.

18. Zhang L, Wang A, Xie X, Zhou Y, Li J, Yang L, et al. Workplace violence against nurses: A cross-sectional study. Int J Nurs Stud 2017;72:8-14.

19. Xing K, Zhang X, Jiao M, Cui Y, Lu Y, Liu J, et al. Concern about Workplace Violence and Its Risk Factors in Chinese Township Hospitals: A Cross-Sectional Study. Int J Environ Res Public Health 2016; 13:1-11.