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Work hours and overtime of nurses working in Cambodian hospitals

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Abstract

Aim: To examine the nature and prevalence of Cambodian nurses' work hours and overtime and related factors

Background: The chronic shortage of nursing workforce is a major cause of overtime among nurses.

Introduction: Nursing shortage and working overtime among nurses negatively affect nurse and patient outcomes, but nurses' work hours and overtime in Cambodia have not been comprehensively examined.

Methods: A multicenter cross-sectional study was conducted in four Cambodian hospitals. Data were collected from 253 nurses providing direct nursing care using a questionnaire. The STROBE checklist was used for reporting this study.

Results: More than a fifth of staff nurses worked more than 48 h, which is the legal work hour limit in Cambodia. Two major reasons for working mandatory or voluntary overtime, on-call or 24-h on-call were (a) not wanting to let down colleagues and (b) able to get all work done. The number of patients cared for was related to whether or not nurses worked 48 h or more.

Conclusion: Overtime work and adverse nurse scheduling are common in Cambodia.

Implications for nursing and health policy: Nurse managers and healthcare institutes in Cambodia need to monitor Cambodian nurses' work hours, which are often beyond the legal work hour limit. Moreover, it is important to understand why nurses work overtime and develop health policies, strategies, and programs that can help promote patient and nurse safety and retain qualified nursing staff. The 24-h on-call practice needs to be regulated according to the labor policy in healthcare institutes to prevent adverse nurse and patient outcomes.

KEYWORDS
Cambodia, developing country, nurse, overtime, work hour, working condition

INTRODUCTION

Nurses working at a hospital often engage in long work hours to provide 24-h nursing services to patients. Nurses are required to work overtime due to shortage of nursing staff or to provide appropriate nursing services to meet the daily variations in patient census (Bae, 2021). Globally, nurses work on various work scheduling methods, including those that may exceed the traditional eight work hours per shift.

More than half (54%) of Registered Nurses (RNs) in the United States worked more than 39 h per week, and 19.3% nurses worked 48 or more hours per week (U.S. Department of Health and Human Services, 2010). Kunaviktikul and colleagues (2015) found that nurses in Thailand worked

58.82 h per week on average. In the Philippines, 65% of nurses reported working more than 40 h per week, and 83% reported mandatory or incidental overtime more than once a month (de Castro et al., 2010).

Working for long periods of time without sufficient rest can have detrimental impact on the nurses (Min et al., 2019). Sleep and vigilance are compromised, thereby lengthening the time required for recovery (Bae & Fabry, 2014; Caruso et al., 2019). The American Nurses Association recommended implementation of improved nurse work schedule strategies such as limiting shifts to 12 h or less per day and 40 h or less per week (American Nurses Association, 2014).

Working long hours in a day was related to an increase in occupational injuries (Härmä et al., 2020), and a decrease in job satisfaction (Shin et al., 2020). Working 40 h or more per week has been shown to be related to burnout (Dyrbye et al., 2019). Occupational injuries (Shin et al., 2020) were related to working voluntary overtime. In addition, extended working hours positively correlated with emotional exhaustion and depersonalization (Kunaviktikul et al., 2015).

Nurses' longer working shifts correlate with poor quality of nursing care (Ball et al., 2017) and increased healthcare-associated infections (D'Sa et al., 2018). Insufficient breaks indirectly relate to compromised patient safety, medication errors, and falls with injury through missed nursing care (Min, Yoon, et al., 2019). Moreover, medication errors (Kunaviktikul et al., 2015), decubitus ulcers (Stone et al., 2017), catheter-associated urinary tract infections (Stone et al., 2017), and healthcare-associated infections (Beltempo et al., 2017) are associated with overtime work. Extended nurse work hours also are related to communication and patient identification related errors and increase patient complaints (Kunaviktikul et al., 2015).

In 2018, the number of Cambodian nursing and midwifery personnel per 1000 population was 0.686 (counting to 11 140), which was lower than that in other Association of Southeast Asian Nations countries (World Health Organization, 2020). According to the National Public Health and the Medical Plan of the Cambodian government (Ministry of Health, 2012), primary nurses and primary midwives have been deployed to public healthcare centers, but secondary nurses are in short supply. Additionally, the number of nurses leave nursing to join other professions has been on the rise (Koy et al., 2017). Shortages in health care providers are a critical barrier to achieving health development goals and the long-term vision of better public health outcomes (Department of Planning & Health Information, 2016).

It is known that Cambodian nurses practice 24-h on-call shifts and 8-h normal shifts (Koy et al., 2017). However, to the best of our knowledge, the work hours and overtime practices of Cambodian nurses have not been comprehensively examined using empirical data collected from multisites. Therefore, this study was conducted to examine the nature and prevalence of work hours and overtime practices among Cambodian nurses and their relationship with working conditions. We also examined the reasons why some nurses chose to work overtime. The study findings are expected to facilitate the development of policies and practice guidelines to prevent additional injury and turnover of Cambodian nurses due to overtime work.

METHODS

Study design

This is a multicenter cross-sectional study. We used the STROBE checklist for reporting this study.

Sample and setting

This study was conducted at three acute care hospitals in Phnom Penh (two general hospitals and one pediatric hospital) and one acute care pediatric hospital in Siem Reap, Cambodia. We contacted chief nursing officers (CNOs) in each hospital to explain to them the current study. The CNOs distributed information regarding the current study to staff nurses. With the assistance of CNOs, we invited staff nurses to administer the survey questionnaire in their hospital.

Based on a similar study conducted in Korea (Bae et al., 2018), we planned to select 250 participants from Phnom Penh and 180 from Siem Reap using a convenience sampling method. A total of 377 nurses participated in the survey, and all (100%) questionnaires were completed and returned. Specifically, 50–178 nurses (28%), 98–300 nurses (32%), 48–168 nurses (29%) were selected from each of the three hospitals in Phnom Penh, and 141–195 nurses (72%) from the one hospital in Siem Reap. Among them, we excluded 84 questionnaires from nurses who do not meet the inclusion criteria, and 253 full-time nurses working 36 or more hours per week were included. This sample size was sufficient considering the minimum sample of 210 required for t-test with the significant level of 0.05, power of 0.95, and effect size of 0.5.

Data collection

Data were collected between June and August 2019. In the presence of an interpreter, written informed consent was obtained from the participants. After obtaining informed consent, we handed out the survey questionnaire. The survey required about 40 minutes to complete.

Survey questionnaire and measures

The survey questionnaire was adapted from a survey questionnaire (Bae, 2012) that comprehensively examined nurse work hours and overtime. The original English version of the survey (Bae, 2012) consisted of questions about nurse demographics and work setting characteristics, work hours and overtime practice, working conditions, and reasons that made a nurse decide to work overtime. The Khmer language version

of the survey was developed through translation of the original English version. A Cambodian nurse who had a bachelor degree in both nursing and English translated the survey. After translation, two Cambodians and one Korean who were fluent in two languages compared the Khmer version of the survey with the original one to confirm if it is translated properly. The Khmer version of the survey was verified the contents by three staff nurses who provided the direct patient care in Cambodia. Through this process, we ensured similarity of the survey items.

Characteristics of nurse demographics (age, sex, education, marital status, living dependents, and health status) and work setting (hospital type, hospital size, unit tenure, and number of positions held) were assessed.

To measure work hours, we used weekly work hours, measured as the number of total hours nurses actually worked at their main nursing position in a regular week. To determine long work hours, the percentage of nurses who worked more than the legal work hours/ week was considered (Council for the Development of Cambodia, 2021). This was a dichotomous variable of fewer or greater than 48 h per week.

Nurse overtime was defined as the actual work hours that exceeded scheduled hours. To understand the current issues and problems of Cambodian nurses' overtime, we focused on mandatory overtime, voluntary overtime, on-call, and 24-h on-call. The numbers of hours of mandatory and voluntary overtime in the main nursing position in a regular week were measured. The categorical variable of type of overtime worked was also used in the study. Nurses were allowed to answer with more than one response if they worked multiple types of overtime.

On-call hours were defined as the numbers of hours nurses stood by and stayed at home for on-call practice and were measured as the numbers of hours nurses worked on-call at their principal position in a typical week. A dichotomous variable for on-call (yes/no) was used. A 24-h on-call required nurses to stay in the hospital and work for 24 h, which is a type of long shift (Koy et al., 2019). When nurses reported that they have worked 24-h on-call during their shift or during weekly work hours, we considered that these nurses worked the 24-h on-call.

Working condition variables were measured, including unit type, work shift, number of patients per nurse during a shift, patient census fluctuation (frequently/rarely), occurrence of a nursing shortage (frequently/rarely or never) meaning lack of nursing staff, and chronic nursing shortage (yes/no) meaning persistent shortage of nursing staff.

We also asked the reasons for the nurses' decision to work overtime and the nurses could provide more than one reason. Five items were adapted from the British workplace Employee Relations Survey (Hart, 2004). Those nurses who reported working overtime responded "Yes" or "No" to each reason for working each type of overtime.

Data analysis

We used SPSS Statistics software Version 25.0 (IBM, Armonk, New York, USA) for all analyses, and summarized all the variables using descriptive statistics (i.e., frequency, mean, variance, and percentage). Differences between the percentage of nurses' overtime work, breaks, and work hours were analyzed according to each of the working conditions using chi-square analysis and t-test. We analyzed the total without missing values and the number of nurses who truly answered each question.

Ethical considerations

This study was approved by the Ewha Womans University Institutional Review Board (IRB) (IRB No. 150–4), the Ankor Hospital for Children IRB (IRB No. 0122/19), and the National Ethics Committee for Health Research in Cambodia (IRB No. 061-NECHR). We obtained consent from each participant after providing sufficient explanation about the study. Data were deidentified, and all collected data were kept confidential. Moreover, we obtained approval for use of the questionnaire from Bae (2012).

RESULTS

General characteristics

The mean age was 32.11 years, and more than half (52.2%) of the nurses were female (Table 1). About 68% had an Associate degree, more than half (60.2%) of the nurses were married, and almost half (44.7%) were caring for children. More than half (55.6%) the nurses reported that they were healthy.

Regarding work setting characteristics, 47% of the nurses worked in government hospitals. A total of 117 (50.4%) nurses worked at hospitals with fewer than 300 beds. Most of the nurses worked in a general unit (35.7%). The mean unit tenure of the nurses was 100.76 months, or a little over 8 years.

On average, nurses worked 49.45 h per week; 82.5% nurses worked over 40 h per week, and 22.5% nurses worked over 48 h per week. In terms of overtime, more than half (59.7%) of the nurses reported having experienced at least one instance of overtime/on-call or 24-h on-call. Nurses had to often perform mandatory and voluntary overtime, with 41.4% of the nurses reporting that they worked mandatory overtime and 34.0% reporting voluntary overtime. A total of 16.2% nurses worked on-call. They occasionally performed 24-h on-call (21.7%). Regarding breaks during shift, 21.7% of the nurses reported no break or only one break lasting 10 min.

TABLE 1   Characteristics of study variables

	Study sample	
Variables	*n* or Mean	% or SD
Demographic characteristics		
Age (years)	N = 251	
Mean (SD)	32.11	7.44
<30	113	45.0
30–39	103	41.0
40–49	25	10.0
50 or older	10	4.0
Gender	N = 247	
Female	129	52.2
Male	118	47.8
Education	N = 245	
Associate	166	67.8
Bachelor's or master's degrees [1]	72	29.4
Other	7	2.8
Marital status	N = 251	
Never married	95	37.8
Married	151	60.2
Divorced or widowed	5	2.0
Living dependents (more than one option possible) [2]	N = 333	
No children/parents/dependents at home	45	13.5
Child(ren) less than 6 years old at home	89	26.7
Child(ren) 6 to 18 years old at home	60	18.0
Other adults at home (i.e., parents)	139	41.8
Health status	N = 252	
Poor	5	2.0
Fair	107	42.4
Good	126	50.0
Very good and excellent	14	5.6
Work setting characteristics		
Hospital type	N = 253	
Government hospital	119	47.0
Nongovernment organization hospital	134	53.0
Hospital size	N = 232	
<300	117	50.4
300–399	25	10.8
400–499	31	13.4
> = 500	59	25.4
Type of nursing unit	N = 252	
Emergency unit	22	8.7
Intensive care unit	42	16.7
General unit (e.g., medical, surgical)	90	35.7
Operation room	34	13.5

(Continues)

TABLE 1   (Continued)

	Study sample	
Variables	*n* or Mean	% or SD
Neonatal care unit	17	6.7
Oncology unit	6	2.4
Psychiatric unit	2	0.8
Other	39	15.5
Unit tenure (months)	N = 250	
Mean (SD)	100.76	84.89
≤12	8	3.2
13 to ≤36	54	21.6
37 to ≤60	34	13.6
61 to ≤120	81	32.4
>120	73	29.2
Number of positions held	N = 244	
1	224	91.8
2 or more	20	8.2
Work hours, overtime, and break		
Weekly work hours	N = 235	
Mean (SD)	49.45	13.16
36–40 hours	41	17.5
41–48 hours	141	60.0
More than 48 hours	53	22.5
Working either overtime/on-call/24-h on-call	N = 253	
Yes	151	59.7
No	102	40.3
Mandatory overtime hours per week	N = 239	
Mean (SD)	6.08	13.69
Yes	99	41.4
No	140	58.6
Voluntary overtime hours per week	N = 235	
Mean (SD)	4.20	11.46
Yes	80	34.0
No	155	66.0
On-call hours per week	N = 241	
Mean (SD)	2.88	12.74
Yes	39	16.2
No	202	83.8
24-h on-call	N = 253	
Yes	55	21.7
No	198	78.3
Break time	N = 249	
No break or only one break lasting 10 min	54	21.7
Two or more break lasting 10 min	195	78.3

[1] Number of RNs with a master's degree was less than 5.
[2] Multiple responses possible, SD (Standard Deviation).

TABLE 2 Nature of nurse work hours and prevalence of nurse overtime

	Two or more break lasting 10 min			Working more than 48 h per week		
	No	Yes		No	Yes	
	n (%)	n (%)	N	n (%)	n (%)	N
Working either overtime/on-call/24-hour on-call						
Yes	35 (23.8)	112 (76.2)		99 (71.7)	39 (28.3)	
No	19 (18.6)	83 (81.4)		83 (85.6)	14 (14.4)	
Total (%)	54 (21.7)	195 (78.3)	249	182 (77.5)	53 (22.5)	235
x^2 (p)			0.952 (0.329)			6.236 (0.013)*
Mandatory overtime						
Yes	19 (19.8)	77 (80.2)		64 (69.6)	28 (30.4)	
No	32 (23.0)	107 (77.0)		114 (82.6)	24 (17.4)	
Total (%)	51 (21.7)	184 (78.3)	235	178 (77.4)	52 (22.6)	230
x^2 (p)			0.349 (0.555)			5.367 (0.021)*
Voluntary overtime						
Yes	16 (20.8)	61 (76.2)		55 (72.4)	21 (27.6)	
No	33 (21.4)	121 (78.6)		120 (80.5)	29 (19.5)	
Total (%)	49 (21.2)	182 (78.8)	231	175 (77.8)	50 (22.2)	225
x^2 (p)			0.013 (0.909)			1.943 (0.163)
On-call						
Yes	7 (20.0)	28 (80.0)		28 (84.9)	5 (15.1)	
No	44 (21.8)	158 (78.2)		149 (75.6)	48 (24.4)	
Total (%)	51 (21.5)	186 (78.5)	237	177 (77.0)	53 (23.0)	230
x^2 (p)			0.056 (0.813)			1.353 (0.245)
24-h on-call						
Yes	15 (27.3)	40 (72.7)		22 (47.8)	24 (52.2)	
No	39 (20.1)	155 (79.9)		160 (84.7)	29 (15.3)	
Total (%)	54 (21.7)	195 (78.3)	249	182 (77.5)	53 (22.5)	235
x^2 (p)			1.297 (0.255)			28.731 (< 0.001)**

*$p < 0.05$.
**$p < 0.001$.

Nature and prevalence of work hours and overtime

Among nurses having two or more 10-min breaks, the percentage of nurses engaged in overtime did not vary (Table 2). Among those who worked mandatory overtime, a significantly higher percentage (30.4%) of nurses worked more than 48 h per week than those who did not (17.4%; $x^2 = 5.367$, $p = 0.021$). Similarly, among nurses working 24-h on-call, a significantly higher percentage (52.2%) reported that they worked more than 48 h per week than those who did not (15.3%; $x^2 = 28.731$, $p = < 0.001$).

Work hours/overtime and working conditions

The number of patients cared for was the only working conditions differing according to overtime (Table 3). A higher percentage of nurses who cared for 21 or more patients reported working overtime than nurses caring for 10 or fewer patients ($x^2 = 21.338$, $p = < 0.001$). None of the working condition variables differed in terms of having two or more 10-min breaks. Working more than 48 h per week differed by the number of patients cared for, with nurses caring for 11–20 patients most often working 48 h or more per week ($x^2 = 35.001$, $p = < 0.001$).

Reasons for working overtime

In total, 80.8% of these nurses reported that overtime was necessary or part of their job (Supporting Information Figure). Among all nurses working any type of overtime, 49.7% worked overtime because they needed extra money. Of the nurses working overtime, 44.4% answered that they liked to work overtime whenever needed. A total of 83.4% of nurses reported working overtime because they did not want to let down their colleagues. Nurses working voluntary overtime

TABLE 3 Nurse work hours, overtime, and working conditions

	Number of all nurses to items	Working either overtime/on-call/24-hour on-call			Two or more break lasting 10 minutes			Working more than 48 hours per week		
	n (%)	No n (%)	Yes n (%)	x^2/t (p)	No n (%)	Yes n (%)	x^2/t (p)	No n (%)	Yes n (%)	x^2/t (p)
Unit type										
Critical care (ICU, ER)	64 (25.4)	26 (40.6)	38 (59.4)	2.315 (0.314)	14 (21.9)	50 (78.1)	0.249 (0.883)	52 (81.3)	12 (18.7)	0.653 (0.722)
Medical/surgical	90 (35.7)	41 (45.6)	49 (54.4)		20 (22.7)	68 (77.3)		64 (77.1)	19 (22.9)	
Other	98 (38.9)	34 (34.7)	64 (65.3)		19 (19.8)	77 (80.2)		66 (75.9)	21 (24.1)	
Total (%)	252	101 (40.1)	151 (59.9)	252	53 (21.4)	195 (78.6)	248	182 (77.8)	52 (22.2)	234
Work shift										
8-h shifts	106 (41.9)	38 (35.9)	68 (64.1)	1.513 (0.219)	19 (18.6)	83 (81.4)	0.952 (0.329)	73 (76.0)	23 (24.0)	0.184 (0.668)
Longer than 8-h shifts	147 (58.1)	64 (43.5)	83 (56.5)		35 (23.8)	112 (76.2)		109 (78.4)	30 (21.6)	
Total (%)	253	102 (40.3)	151 (59.7)	253	54 (21.7)	195 (78.3)	249	182 (77.5)	53 (22.5)	235
Number of patients cared for										
1–10	134 (59.5)	69 (51.5)	65 (48.5)	21.338 (< 0.001)***	33 (25.0)	99 (75.0)	1.363 (0.506)	118 (90.8)	12 (9.2)	35.001 (< 0.001)***
11–20	42 (18.7)	9 (21.4)	33 (78.6)		7 (16.7)	35 (83.3)		19 (52.8)	17 (47.2)	
21 or more	49 (21.8)	10 (20.4)	39 (79.6)		12 (25.5)	35 (74.5)		25 (58.1)	18 (41.9)	
Mean (SD)	18.86 (25.14)	13.39 (20.50)	22.38 (27.21)	−2.65 (0.009)**	19.92 (28.00)	18.51 (24.51)	0.35 (0.726)	15.35 (23.54)	25.17 (21.37)	−2.27 (0.011)*
Total (%)	225	88 (39.1)	137 (60.9)	225	52 (23.5)	169 (76.5)	221	162 (77.5)	47 (22.5)	209
Patient census fluctuation										
Frequently	215 (88.1)	91 (42.3)	124 (57.7)	3.517 (0.061)	46 (21.7)	166 (78.3)	0.670 (0.413)	156 (76.9)	47 (23.1)	1.418 (0.234)
Rarely	29 (11.9)	7 (24.1)	22 (75.9)		8 (28.6)	20 (71.4)		21 (87.5)	3 (12.5)	
Total (%)	244	98 (40.2)	146 (59.8)	244	54 (22.5)	186 (77.5)	240	177 (78.0)	50 (22.0)	227
Occurrence of nursing shortage										
Frequently	157 (65.7)	64 (40.8)	93 (59.2)	0.068 (0.795)	32 (20.9)	121 (79.1)	0.674 (0.412)	125 (82.8)	26 (17.2)	3.740 (0.053)
Rarely or never	82 (34.3)	32 (39.0)	50 (61.0)		21 (25.6)	61 (74.4)		50 (71.4)	20 (28.6)	
Total (%)	239	96 (40.2)	143 (59.8)	239	53 (22.5)	182 (77.5)	235	175 (79.2)	46 (20.8)	221
Chronic nursing shortage										
Yes	130 (58.6)	51 (39.2)	79 (60.8)	<0.001 (0.988)	30 (23.6)	97 (76.4)	0.838 (0.360)	98 (79.0)	26 (21.0)	2.402 (0.121)
No	92 (41.4)	36 (39.1)	56 (60.9)		17 (18.5)	75 (81.5)		57 (69.5)	25 (30.5)	
Total (%)	222	87 (39.2)	135 (60.8)	222	47 (21.5)	172 (78.5)	219	155 (75.2)	51 (24.8)	206

*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.
ER (Emergency Room), ICU (Intensive Care Unit)
SD (Standard Deviation),

more frequently reported that they worked overtime to complete all their work (91.3%) than those working mandatory overtime (86.9%) or working on-call hours (84.6%). The top two reasons for working overtime were (1) to not let colleagues down (83.4%) and (2) to be able to get all work done (85.4%).

DISCUSSION

This study found that Cambodian nurses worked on average 49.45 h per week. Adverse nurse scheduling practices, such as 24-h on-call, were found common. Cambodian nurses were younger than U.S. nurses and had a larger proportion of male nurses (U.S. Department of Health & Human Services, 2020). However, among nurses rating their health as good or higher, there were fewer Cambodian nurses than U.S. nurses (Bae, 2012). Currently, the legal number of work hours in Cambodia is 8 h per day and 48 h per week (Council for the Development of Cambodia, 2021). Our study found that about 22.5% of nurses worked more than 48 h per week, and 21.7% worked 24-h on-call. Moreover, working more than 48 h per week was associated with working mandatory overtime and 24-h on-call, highlighting the importance of monitoring long work hours and overtime to prevent adverse nurse and patient outcomes. These findings indicate that long work hours and overtime among nurses are as prevalent in developing countries as are adverse scheduling practices such as 24-h on-call. These are important study findings given in limited evidence available regarding work hours and overtime among nurses in developing countries such as Cambodia.

Among nurses working voluntary overtime, 85% reported working overtime because they did not want to let down their colleagues. U.S. nurses also reported that the top reason for working overtime was not wanting to let down colleagues (75.0%) (Bae, 2012). A general assumption is that fatigued nurses will not work voluntary overtime (Olds & Clarke, 2010). However, the present findings indicate that fatigued nurses worked overtime voluntarily because they do not want to let down their colleagues, a sentiment common across countries. Voluntary overtime has been negatively associated with medication errors and patient falls (Olds & Clarke, 2010). Therefore, nurse managers and staff nurses should pay attention to any type of overtime and the adverse impacts on patient and nurse outcomes.

As mentioned earlier, a substantial proportion of nurses worked 24-h on-call as part of their overtime practice. In Cambodia, the reasons for having the staff work such long hours have not been determined (Koy et al., 2020). It is known that nurses who worked 24-h on-call, had one day off, and then worked two days of 8-h shifts prior to starting the next 24-h on-call (Koy et al., 2020). Adverse impacts of such long work shifts have been studied (Bae, 2021; Bae & Fabry, 2014). To prevent such long work shifts, several states in the U.S. regulate nurse shift lengths such that nurses cannot work more than 12 h within 24 h (Hwang & Bae, 2017). One of the strategies to prevent such long work hours is to develop healthcare and legislative labor and institutional policies to limit 24-h on-call practice to protect both patients and nurses from unfavorable outcomes.

This study has several limitations. Given that the data were collected from four hospitals in Cambodia, the generalizability of the study results is limited. All variables were measured by self-reported questionnaires, thus recall biases and responding according to social desirability could have affected the study results. In future studies, data collected from multiple sources regarding nurse work hours and overtime in Cambodian hospitals should be used.

CONCLUSION

Nurses who worked in Cambodian hospitals often worked long hours. A substantial number of nurses worked more than 48 h per week, which is the legal work hour limit in Cambodia. We also found adverse work scheduling practices, such as 24-h on-call. These are important study findings regarding work hours and overtime among nurses in developing countries such as Cambodia.

IMPLICATIONS FOR NURSING AND HEALTH POLICY

Given the shortage of nursing workforce in Cambodia, the findings of this study provide information necessary to understand the current issues and problems of Cambodian nurses' work hours and overtime. Based on the study findings, Cambodian nurses' work hours are often beyond their legal work hour limit. This needs to be monitored by nurse managers and healthcare institutes in Cambodia. Understanding why nurses work for extended hours is important. The development of health policies, strategies, and programs is necessary to reduce these extended work hours so that patient and nurse safety can be improved and qualified nursing staff can be retained. According to the labor policy, the 24-h on-call practice needs to be regulated in healthcare institutes to prevent adverse nurse and patient outcomes. Further studies should examine other working conditions of nurses and the effects of working long hours among nurses in Cambodian hospitals.

CONFLICT OF INTEREST
The authors declare no conflict of interest.

AUTHORSHIP CONTRIBUTIONS
Study design: SHB, SJY, HR; Data collection: SHB, MP, CS, SK, BA, SB, JH; Data analysis: SHB, BA, SB; Study supervi-

sion: SHB; Manuscript writing: SHB, MP, CS, SK, BA; Critical revisions for important intellectual content: SHB, MP, BA, SJY, HR, JH, SB

ETHICS STATEMENT

PERMISSIONS IN USE OF INSTRUMENT

This study obtained approval for use of the instrument from the developer.

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