CHAPTER 3

Methodology

This chapter describes the methodology of the study, including research design and settings; population and sample; research instruments; protection of human subjects; data collection procedures; and data analysis procedures.

Research Design

The descriptive correlational design was used to examine workplace bullying and the levels of job performance, and to determine the relationship between workplace bullying and task performance and contextual performance of nurses in tertiary hospitals, the P. R. China.

Population and Sample

Population

The population of this study was 2,357 registered nurses (RN) with valid license who worked in tertiary hospitals at least one year. There were 951 RNs from Hospital A, 783 RNs from Hospital B and 623 RNs from Hospital C.

Sampling criteria. Inclusion criteria for this study as follows:

1. Nurses who are working in clinical department including Medical, Surgical, Obstetrics and Gynecology (OB-GYN), Pediatric, Intensive Care Unit (ICU), Emergency Room (ER), Operation Room (OR), Out-patient Department and providing direct nursing care to patients.

2. Willing to participant in this study.

Exclusion criteria for the study are:

- 1. Nurses who are in administration position.
- 2. Nurses who are on the maternity leave, vocation and continuing education.

Sample size. The sample size of this study was calculated according to Yamane's formula (1973):

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$$n = N/(1+N(e)^2)$$

N= total number of accessible population

n= sample size

e= the error in the sample, defined as 5%

The sample size $n = \frac{2357}{(1+2357 \times (0.05)^2)} = 342$

According to above formula, the sample size need in this study was 342 nurses. Considering the possible loss of subjects, 20% of the sample size, 68 nurses were added into the sample. Therefore, total sample of this study was 410 nurses.

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Sampling Technique

Proportional stratified random sampling method was used to select nurse samples from the three hospitals. Randomly drawn sampling was used to select nurses from the name lists of nurses from the clinical nursing departments. This process was continued until the required number of nurses were obtained. It allows 166 nurses from Hospital A, 136 nurses from Hospital B and 108 nurses from Hospital C. The number of nurses in each department were calculated as follows (Table 3-1):

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Hospital	Hospita	al A	Hospit	al B	Hospit	tal C	Total
Department	Population	Sample	Population	Sample	Population	Sample	sample
Medical	364	64	272	47	236	41	152
Surgical	236	41	228	40	139	25	106
Out-patient	19	3	57	10	23	4	17
OR	60	11	45	8	36	6	25
ER	77	13	42	7	36	6	26
ICU	50	9	34	6	25	4	19
Pediatric	65	11	59	10	76	13	34
OB-GYN	80	14	46	8	52	9	31
Total number	951	166	783	136	623	108	410
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Table 3-1Number of Population and Sample in each Hospital

Research Instrument

The research instrument used in this study was a questionnaire consisting of three parts: a) The Demographic Data Form; b) Negative Acts Questionnaire-Revise (NAQ-R); c) Job Performance Scale (JPS). The details of each part are as follows.

Part 1: Demographic Data Form

Demographic Data Form was developed by the researcher and was used to gather demographic information of each participant, including clinical area, gender, age, marital status, educational level, and professional title, number of working years, and employment type.

Part 2: Negative Acts Questionnaire-Revised (NAQ-R)

The Negative Acts Questionnaire-Revised (NAQ-R) (Einarsen et al., 2009) was used in this study to measure workplace bullying among nurses. It contains 22 items which refer to direct and indirect aspects of bullying and were grouped into three subscales: work-related bullying (7 items), person-related bullying (12 items) and physically intimidating bullying (3 items). All 22 items were written in behavioral terms with no reference to the term of "bullying". With the 5-point Likert scale response format, alternatives for all items were: 1 = "never", 2 = "now and then", 3 = "monthly", 4 = "weekly" and 5 = "daily". The respondents were prompted to state how often they have been subjected to the 22 negative acts of the questionnaire, based on their experience in their workplace, over the last six months (Einarsen et al., 2009).

The researcher received permission to use this instrument from the original author of NAQ-R. According to Notelaers and Einarsen (2013), based on the original response of NAQ-R, the proposed cutoff scores for the groups "not bullied", "occasionally bullied", and "victims of severe workplace bullying" rely on a raw sum-score for the items (Table 3-2). The prevalence of workplace bullying in this study was reported as the percentage of "occasionally bullied" and "victims of severe workplace bullying".

Table 3-2

	Criteria	of	Evaluate	Workplace	Bullying
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Cutoff scores	Group
Sum score ≤ 32	not bullied
Sum score 33-44	occasionally bullied
Sum score ≥ 45	victims of severe workplace bullying

Note. From "The world turns at 33 and 45: Defining simple cutoff scores for the Negative Acts Questionnaire-Revised in a representative sample", by G. Notelaers & S. Einarsen, 2013, *European Journal of Work and Organizational Psychology*, *22*(6), pp. 670-682.

Notelaers and Einarsen (2013) demonstrated that by using this cutoff score the chances of being classified as a target while not being a real target, and the chance of not being classified as a target while actually being a target couls be minimized. Following this theoretical resoning, bullying is not an either/or phenomenon, it could be described as a process, so there is a need to identify the victim of early stage of bullying and the victim of severe bullying. This is also important in regards to the three stages of prevention.

Part 3: Job Performance Scale (JPS)

Job Performance Scale (Greenslade & Jimmieson, 2007) was used in this study to measure nursing job performance. It was combined with two parts of questionnaires: task performance scale and contextual performance scale for a total of 41 items which belong to eight subscales.

The task performance scale has 23 items which are broken down to four subscales: technical care (5 items), information support (7 items), social support (6 items) and coordination of care (5 items). This scale appraised how well nurses in their unit completed a variety of activities based on their current situation, ratings made on 7-Point Likert Scale, 1 = much below average, 7 = too much above average. The Cronbach's α of the original scale was .94.

The contextual performance scale has 18 items which can be broken down to four subscales: job-task support (6 items), interpersonal support (6 items), volunteering for additional duties (3 items) and compliance (3 items). This scale appraised how often nurses in their unit completed the activities based on their current situation, ratings made on 7-Point Likert Scale, 1 = not at all, 7 = to a great deal. The Cronbach's α of the original scale was .91.

Based on the previous studies, the level of job performance was evaluated according to three levels--- low, moderate and high based on the total score in task performance and contextual performance (Table 3-3 & Table 3-4). In this present study, the researcher reported levels of task performance and contextual performance by using the total score mean and standard deviation.

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Table 3-3Evaluation of Task Performance Level

	Level of task performance			
-	Low	Moderate	High	
Total score	23.00-69.00	69.01-115.00	115.01-161.00	
Technical care	5.00-15.00	15.01-25.00	25.01-35.00	
Information support	7.00-21.00	21.01-35.00	35.01-49.00	
Social support	6.00-18.00	18.01-30.00	30.01-42.00	
Coordination of care	5.00-15.00	15.01-25.00	25.01-35.00	
Each item	1.00-2.30	2.31-4.60	4.61-7.00	

Table 3-4

Evaluation of Contextual Performance Level

	Level of contextual performance				
	Low	Moderate	High		
Total score	18.00-54.00	54.01-90.00	90.01-126.00		
Job-task support	6.00-18.00	18.01-30.00	30.01-42.00		
Interpersonal support	6.00-18.00	18.01-30.00	30.01-42.00		
Volunteering for additional duties	3.00-9.00	9.01-15.00	15.01-21.00		
Compliance	3.00-9.00	9.01-15.00	15.01-21.00		
Each item	1.00-2.30	2.31-4.60	4.61-7.00		
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Greenslade and Jimmieson (2007) tested convergent validity and criterion-related validity of JPS showed that both of task performance and contextual performance have significant correlation. JPS was considered as a reliable and valid instrument to assessing the JP in nursing profession. This instrument was permitted to be used from the author.

The previous studies' translation of NAQ-R and JPS by using different version, so NAQ-R and JPS in this study were translated into Chinese through back-translation methods (Waltz, Strickland, & Lenz, 2010) by researcher without any modification. Three steps translation process have been done as follows:

1. Translation of the original source of language version (English) of the NAQ-R and JPS into Chinese was implemented by the researcher.

2. Backward translation of Chinese version of NAQ-R and JPS was fulfilled by one bilingual health professional that proficient in both English and Chinese language.

3. The back-translated English version of NAQ-R and JPS were confirmed for the equivalent of this translated version with the original version by an English expert.

Quality of the Instrument

Validity

Job Performance Scale (Greenslade & Jimmieson, 2007) and Negative Acts Questionnaire-Revised (Einarsen et al., 2009) were validated by the developers of these instruments. These two instruments have been used in present study without any modification. Therefore, the researcher did not test the validity of two instruments in this study.

Reliability

Both of Chinese version NAQ-R and JPS were used for testing reliability in a group of 20 registered nurses with the same characteristics as the target population, to check the nurses' understanding and clarity of the expressions. In this study, the Cronbach's α of NAQ-R was .91, the Cronbach's α of task performance scale and contextual performance scale were .97 and .96 respectively.

Human Rights Protection

In advance of the implementation of the study, approvals from the research ethics and data was gained from the Research Ethics Review Committee of the Faculty of Nursing, Chiang Mai University, Thailand, as well as the permission to collect data from the nursing department directors of each hospital. All participants were informed of the purpose and method of the study. The participants were informed that participation in the study is voluntary and they have right to refuse participate or withdraw from the study at any time. Further, the participants were reassured that their responses will remain confidential and their identities will not be revealed on research reports or in the published study. The information they provided only used for the purpose of the study. Information letters explaining the study and consent forms were sent to all participants. The participants who agreed to participate in the study were required to sign the consent form. There are no any effect on participants work after response this questionnaire. The questionnaire and consent form were kept respectively. To further ensure the confidentiality of the participants, the questionnaires remained in a secured locked box which could be opened only by the researcher, in secure storage. A code number was placed on the completed questionnaires, all research data were saved on the researcher's secure computer.

Data Collection Procedures

Data was collected from the sample nurses working in three target hospitals and the operating steps have been done as follow:

1. Researcher submitted the research proposal to Ethics Committee of Faculty of Nursing, Chiang Mai University to review.

2. After receiving the approval letter from the Research Ethics Review Committee, the research proposal, application letter from Dean of Faculty of Nursing, Chiang Mai University for permission to collect data, and Chinese version data collection questionnaires were submitted to the directors of nursing departments of the three selected hospitals for approval to collect data.

3. Researcher introduced the purpose and method of this study to the directors of nursing department of three hospitals for obtaining collection permission.

4. After obtaining permissions from directors of nursing departments in these three hospitals, the researcher asked for three coordinators who are nurses at target hospitals. Before the coordinators distributed the questionnaires, the researcher gave them relevant information including research objectives, questionnaires introduction, participant's right, data collection method and process.

5. Researcher asked for the name lists of nurses from the director of each hospital and selected research participants from the received name lists of nurses by using random sampling technique. After selecting the samples from the name lists, the researcher send the name list of subjects of three hospitals to coordinators respectively. Each of information sheet, questionnaire and consent form were put in sealed envelopes respectively and distributed to participants by coordinators, questionnaires were anonymous. All 410 participants in the study were requested to complete the questionnaire in their private time and require to return the questionnaires and consent forms within two weeks in sealed envelopes. The consent form were folded in half and stapled shut. The researcher put one locked box in front of the nursing department of each selected hospital within two weeks. Ensure only the researcher can open the locked boxes, participants put the sealed envelopes with questionnaire and consent form respectively and put into the locked box. The information sheets were kept by participants.

6. After two weeks, the researcher returned to the hospitals and collected questionnaires and consent forms from the locked box of each hospital.

7. There were a total 382 questionnaires gathered from the locked boxes, the return rate was 93.17%. The researcher excluded questionnaires which were not full completed. Finally, 359 questionnaires were valid for data analysis, the valid return rate for this study was 87.56% and 105% of the calculated sample size.

8. All the completed questionnaires were kept by the researcher in a secure locked box which could be opened only by the researcher at least three years. To assure anonymity, a code number was placed on each of the completed questionnaires after being returned to the researcher. All eligible questionnaires were used to do data analysis, examined by the researcher and all data were saved in researcher's secure computer.

Data Analysis Procedures

Data collected from the proposed survey was coded and entered into the Statistical Package for Social Science (SPSS) 13.0. Both descriptive and inferential statistics were used for data analysis.

1. Demographic data was analyzed using frequency, percentage, mean, and standard deviation. Scores of workplace bullying were analyzed using percentage, mean, and standard deviation and domains of job performance among nurses were analyzed using mean and standard deviation.

2. The data distributions were tested by using Kolmogorov Smirnov and shown normal distribution (p > 0.05). Thus, Pearson's product-moment correlation was used to analyze the relationship between workplace bullying and task performance and contextual performance.

3. Referencing Burns and Grove (2012) correlation coefficient value, the criterion of r value in present study following: r > 0.5 indicated strong correlation, $0.3 \le r \le 0.5$ indicated moderate correlation and r < 0.3 indicated weak correlation between two variables.

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