FACTORS INFLUENCING WORKPLACE VIOLENCE AS PERCEIVED BY NURSES IN BHUTAN

TSHERING CHEKI

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR MASTER OF NURSING SCIENCE
IN NURSING ADMINISTRATION PATHWAY
FACULTY OF NURSING
BURAPHA UNIVERSITY
2020

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรพยาบาลศาสตรมหาบัณฑิต

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TSHERING CHEKI : FACTORS INFLUENCING WORKPLACE VIOLENCE AS PERCEIVED BY NURSES IN BHUTAN. ADVISORY COMMITTEE: CHINTANA WACHARASIN, Ph.D., SAHATTAYA RATTANAGARNA 2020.

Workplace violence is a rising concern and a major threat to professionals in health care system. A predictive cross-sectional study was conducted in three referral hospitals with 190 nursing staffs through simple random sampling. The aim of the study was to investigate on the prevalence, impact and factors influencing workplace violence against nurses working in Bhutan. Data were collected using sets of self-reported questionnaires consisting of workplace violence survey, Short Version of Nursing Professional Competency Scale, Practice Work Environment – Nursing Work Index Scale, Revised Eysenck Personality Questionnaire short scale, Autonomy and Control scale and Workload Perception Questionnaire. Descriptive statistics, chi-square and binary logistic regression were used for data analysis.

Findings revealed that prevalence of workplace violence against nurses was 56.84%. Verbal violence was the most common form of workplace violence at 45.26 %. The result also found that work unit (OR: 4.625, 95%Cl: 0.8454, 25.365) and workload perception (OR: 1.756, 95%Cl: 1.077, 2.862) significantly predicted workplace violence. Nurse administrators and concerned policy makers can use the findings of present research in order to come up with solutions to minimize workplace violence in a timely fashion.

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Tshering Cheki

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CHAPTER 1
INTRODUCTION

Background and significance of the problem

Workplace violence (WPV) is a rising concern and a major threat to professionals in the healthcare system all around the world. Violence against medical staffs has become a widespread and a growing problem worldwide (Honarvar, Ghazanfari, Shahraki, Rostami, & Lankarani, 2019b; Zhang et al., 2017). According to the Bureau of Labor Statistics, census on fatal occupational injuries, the WHO reported that nearly a quarter of workplace violence occurred in healthcare institutes.

In addition to that health care professionals were 16 times more likely to be attacked than the personnel's of other industries (Wei, Chiou, Chien, & Huang, 2016). Among the healthcare professionals, nurses are found to be at highest risk to experience different kinds of WPV due to the nature of their job which requires them to come in frequent and longer direct contact with patients and their families during stressful situations (Hahn et al., 2008; Wei et al., 2016). Many studies have found that nurses are subjected to verbal and physical abuse so frequently that these events are often considered or accepted as "*part of the job*" by many nurses (Sisawo, Ouédraogo, & Huang, 2017; Speroni, Fitch, Dawson, Dugan, & Atherton, 2014).

The exact prevalence of WPV is not clear but it is still high and varies to a great degree between different regions, countries and departments. Just to mention some, prevalence of workplace violence against nurses in the US was estimated at 3.9% (US Department of Justice, 2011) and in UK at 36% (National Health Service, 2014). In a European NEXT study, Camerino et al. (2007) found that Germany and France had the highest frequency along the different types of violence at 53.4% and 62.5% respectively. A literature review of the overall violence exposure rate of nurses was found to be at 57.3% ranging from 24.7% to 88.9% in 12 months prior to data collection (Spector, Zhou, & Che, 2014). A study in China found prevalence of physical violence as high as 25.77% and nonphysical violence at 63.65% (Zhang et al., 2017).

Studies have also identified common perpetrators of WPV against nurses in the hospital settings. Main perpetrators of WPV against nurses were patients with rates as high as 90.3% to 22.7% (Aivazi & Tavan, 2015; Camerino, Estryn-Behar, Conway, van Der, & Hasselhorn, 2008; Cheung & Yip, 2017; Lin & Liu, 2005; Madzhadzhi, Akinsola, Mabunda, & Oni, 2017; Spector et al., 2014; Speroni et al., 2014). Patient's relatives/ attendants were the second highest perpetrator against nurses ranging from 83.2% to 44.3% (Adib, Al-Shatti, Kamal, El-Gerges; Banda, Mayers, & Duma, 2016: Honarvar et al., 2019b; Shi et al., 2017; Shoghi et al., 2008; Sisawo et al., 2017). The third highest perpetrator of WPV against nurses were co-workers in most of the studies. However in Pakistan (Jafree, 2017), a study found that male co-workers physically abused their female nursing staffs at rates as high as 31.9% and verbal and sexual abuse at 32.8%, which is higher compared to all the literature reviewed for this research (Aivazi & Tavan, 2015).

Although extensive studies in the west have explored the phenomena of WPV its concept and definition still remains unclear due to regional and cultural differences but a cross-sectional study by Zhang et al. (2017) proposed five important conclusion agreed upon by majority on WPV as follows: (1) workplace violence can be categorized as physical violence (i.e., violence involving physical contact, such as beating, kicking, slapping and stabbing), verbal abuse (mistreatment through words or tones, such as disparagement and disrespect), threats (promised use of physical and psychological force resulting in fear of negative consequences), sexual harassment, bullying (repeated offensive behaviours that attempts to humiliate an individual), (2) the aggressors can be patients, care givers or family members of patients, visitors, colleagues, and leaders, (3) human and environmental factors are important contributors to the occurrence of violence, (4) WPV can lead to tension in nurse-patient relationships and produce negative patient outcomes and (5) violence can result in physical and psychological deterioration and reduced job satisfaction and performance, and can increase nurses' intention to leave their jobs.

Workplace violence is one of the most complex and threatening occupational hazard in healthcare settings. Compared to other healthcare personnel, nurses are found to be most vulnerable group exposed to all kinds of violence at workplace. Four important factors are derived from this literature review which is

thought to make nurses' more vulnerable to WPV victimization compared to other healthcare staffs.

Firstly, nature of their work, nurses spend extensive amount of their time providing direct care to patients and family members. Secondly, nurses are usually the first and the most available personnel throughout the hospital forming a significant population thus putting them at increased risk to WPV exposure. Thirdly, their presence in stressful situations like accidents, deaths, long waiting hours for physicians to do rounds, transferring patients to a ward or another hospital, predisposes them to even more risk of violent behaviours from patients or their family members than other health care workers (Shoghi et al., 2008). Fourth, factors like long working hours, having to continuously control conditions, exhaustion, overcrowding of hospital, repeated requests by patients and their companions for special privileges, lack of security personnel, frequent confrontation of difficult and stressful situations increases their risk for WPV exposure. The above mentioned are just some of the factors which predisposes nursing staffs to WPV but it is not limited since other factors like environmental/ organizational, cultural beliefs and others may play fair share of role in influencing WPV against nursing staffs.

On an average 60% of all the WPV occurs in the healthcare settings putting nurses at 3 times more risk than other occupational groups to experience violence in their workplace (Banda, Mayers, & Duma, 2016; Honarvar et al., 2019b). There are numerous factors which influence the occurrence of WPV. This study will discuss two major factors which plays an important role in the occurrence of WPV against nurses in healthcare setting. Firstly, it is the nurses' individual characteristics like gender, age, level of education, personality trait and their perceived nursing competency. The second factor is related to organizational characteristics like nurses working environment, working unit, nursing system, autonomy at work and perceived workload.

Theoretically there is a negative relationship between nurses' age and WPV victimization (Di Martino, 2003). This is thought to be due to their limited work experience in real clinical setting and WPV, they lack skills in predicting violent ques from perpetrators thus becoming easy victims of WPV. Gender wise, female nurses are considered to be more associated to violence and harassment especially of sexual

nature (Di Martino, 2003). Moreover, the education level and competency of the nurses are negatively associated with WPV, meaning WPV decreases as the level of education of the nurse advance. Personality of nurses also plays an important role in influencing violence experience, extravert personality trait nurses are negatively associated with WPV while neurotic personality trait nurses are positively associated with WPV.

Organizational factors like work environment of nurses if considered unfavourable is found to elevate different kinds of WPV and vice versa (Di Martino, 2003). Many organizational factors are studied and found to influence WPV against nurses some of these includes factors such as work environment, work setting/ unit, managerial support, adequacy of both staffs and resources, workload etc. Many research concluded with same finding for nurses working units, it was found that working in emergency unit was strongly significantly positively associated with WPV due to the criticality of situation (Honarvar et al., 2019b; Lin & Liu, 2005; Spector et al., 2014; Speroni et al., 2014; Wei et al., 2016; Zhang et al., 2017). But very few studies found otherwise, emergency unit nurses reported the lowest WPV at only 10% compared to WPV report from neonate unit at 80% (Aivazi & Tavan, 2015). The relationship between unit and WPV is mixed and thus inconclusive.

Result from a research identified that managers' unwillingness to defend their nurses during incidence of WPV was strongly negatively associated with frequency of report of aggressive behaviours by nurse victims (Sato, Wakabayashi, Kiyoshi-Teo, & Fukahori, 2013) and shortage of drugs/ medication prescribed for the patients and staffs shortage (Camerino et al., 2008; Sisawo et al., 2017) were fundamental factors triggering aggressive reactions from both patient and their family members. The resource adequacy in terms of both human and infrastructure was thus negatively associated with WPV. Especially shortage of staff was a cardinal factor for long waiting time. This aggravated frustration among patients and their family members and remarks like *"nurses are inefficient and incompetent"* were made along with physical confrontation (Sisawo, 2017).

Nurses' workload was however found by many studies to be positively associated with WPV, meaning the heavier the workload, the more risk they have in experiencing WPV. This is supported from the previous factors on staffing adequacy.

When the staffing is inadequate it means a higher workload for the ones on duty, they are pressurized to work more with fewer resources and time pressure. In order to prioritize the resources and their time to critical patients, many other patient needs go unmet, this cause frustration among these patients and eventually lead to violence (Aivazi & Tavan, 2015; Camerino et al., 2008; Honarvar et al., 2019b; Sisawo et al., 2017; Zhang et al., 2017).

WPV is one phenomena that cannot be ignored because of its impact on many stakeholders: patient, nurse and organization. WPV in hospital is a serious health threatening factors for the patients since nurses who are abused at their care centres might be suffering from various symptoms, reducing the quality of care they provide, many patient needs going unmet and hence poor patient outcomes like increased occurrence of medication errors, pressure ulcers and falls etc. (Obeidat, Qan'ir, & Turaani, 2018).

As for the impact of WPV on nurses, many studies have found that WPV affect nurses both physically and psychologically (Honarvar et al., 2019b; Speroni et al., 2014). Nurses can develop symptoms like exhaustion, sleeping disorder, stress, continuous headache, symptoms of amnesia, alcohol consumption, smoking and death. Other emotional responses like anger, sadness, fear, self-reproach, job dissatisfaction are also common among the nurses (Honarvar, Ghazanfari, Shahraki, Rostami, & Lankarani, 2019a). As a consequence, a nurse may not be able to provide quality nursing care and decide on relocating themselves within a facility or to another healthcare facility or leave nursing profession altogether (Lin & Liu, 2005). The impact of WPV on nurses are multidimensional and is not limited to the ones mentioned above.

At organizational level, WPV will cause immense financial burden on the organization. A study found that nurses who are constantly bullied at their workplace have very high intention to leave their jobs (Yun & Kang, 2018). Poor job performance, low productivity, poor job satisfaction, high staff turnover rate and poor staff morale (Speroni et al., 2014) are prevalent in organizations where there is increased WPV incidences. Another study found increased job errors, low organizational commitment, staff shortage and increase in health care costs (Sato et

al., 2013). Organization will need to invest more on new recruitment, orientation and this can in long run lead to very huge financial burden.

A chronic exposure to insults and rude behaviours while performing ones duty and caring for patients not only jeopardizes nurses' physical, emotional and psychological health, but also ruins effective communication between patients and the nurses (Shoghi et al., 2008). These nurses are unable to provide quality care due to demoralization, dissatisfaction and resulting in leaving their profession. Organization and the nursing administrators thus have a huge role to play in preventing and minimizing WPV against nurses. They need to realize the urgency of WPV phenomena and its deadly impact on not just their nurses but the quality of care and the patient outcomes. They need to realize the extensive amount of time nursing staffs spends with patients and their attendants in particular and in the hospital in general. They need to make sure that various environmental factors are taken care off so that these factors will enhance nurses' job performance rather than inhibiting them.

Bhutan is a developing country and currently many developmental activities are taking place within the country. Many new concerning factors are found to impact health care system (1) rapid economic development affect the health care system with increase in demand for high quality health care services (Thinley et al., 2017), (2) the recent trend in rural to urban migration have doubled the number of care seeker at many urban health care centres (Thinley et al., 2017), (3) growing population and existing nursing shortage (MOH, 2019), (4) all the three referral hospitals are under conversion process to autonomous body. These are some pressing issues that directly impact nursing performance.

With the existing nursing shortage in the country (MOH, 2017 as cited in AHB, 2019) and the issues mentioned above is found to only influence nursing work performance. There is an established relationship between nursing staff shortage and WPV. Many incidents of WPV against nursing staffs precipitates from staff shortage. Due to shortage of nursing staffs many patient needs go unmet, there is poor quality of care and nurses spent limited time with their patients thus making the care receivers dissatisfied with the care provided, which might lead to WPV. Nursing shortage is a national burden, shortage of nurses despite the increased supply

indicates problem with the retention strategies and other factors, and WPV is thus considered one factor leading to nursing shortage in the country.

On the other hand, media coverage on violence occurring in healthcare settings make headlines frequently but the story narrated is superficial or most of the time one sided, the client's end of the story. Majority of such incidence are called off and the most common reason given is nursing shortage. To cite one: news headlined "24 babies infected in NICU – 15 survive, 9 die: JDWNRH" dated September 13, 2018 in Kuensel, created doubts and anger among public towards healthcare staffs, especially against nurses working in NICU. One of the reasons mentioned for this mass outbreak was directed towards nursing shortage and nurse's poor adherence to infection control practices.

Public became furious with majority of them questioning nurses on their professional competency and hampered nurse to patient relationship. Another follow up on this case after almost a year titled "Independent team to investigate infant deaths at NICU" dated April 29, 2019 in Kuensel reported Prime Ministers investigation on this case and it was reported along with other findings that "parents blamed poor infection control measures and negligence from health workers in the NICU". Prime minister also mentioned that some of the nurses went into depression and few were on medication after this incident. Most of the nurses also wanted to switch their unit as they could not work there. Prime minister ended his response to this issue saying "I don't know how much good the media coverage last year made to the system but the damage is that the nurses are thoroughly demoralized and given the choice, all the nurses wanted to move out of NICU".

Although nurses were affected deeply by this incident and lived a very hostile professional life no action was taken to investigate on the experience of nurses and deadly impact it had produced on the nurses to the best knowledge of the researcher. Above is just one such incident where nurses had to take this kind of experience at work as part of their job and were still expected to provide high quality nursing care.

Taking into consideration the above mentioned issues, the researcher is therefore interested to study the prevalence of different types of WPV as perceived by nursing staffs working in Bhutan. This study will also explore on the factors

influencing WPV in order to provide suggestions for the nursing administrators to consider this issue and make necessary policies on WPV to promote good working environment for their nurses which will in turn help in nursing staff retention in the long run.

Objectives of the study

1. To investigate prevalence of workplace violence as perceived by nurses working in Bhutan.
2. To investigate on the impact of workplace violence as perceived by nurses working in Bhutan.
3. To determine factors influencing workplace violence as perceived by nurses working in Bhutan.

Research question

1. What is the prevalence of workplace violence as perceived by nurses working in Bhutan?
2. What are the impacts of workplace violence as perceived by nurses working in Bhutan?
3. What are the factors influencing workplace violence as perceived by nurses working in Bhutan?

Research hypothesis

Nurses' age, gender, level of education, personality trait, nursing competency, work environment, work unit, professional autonomy, and workload perception combined can influence workplace violence as perceived by nurses working in Bhutan.

Scope of research

This predictive cross-sectional study was aimed at finding the prevalence, impact and factors influencing workplace violence as perceived by nurses working in

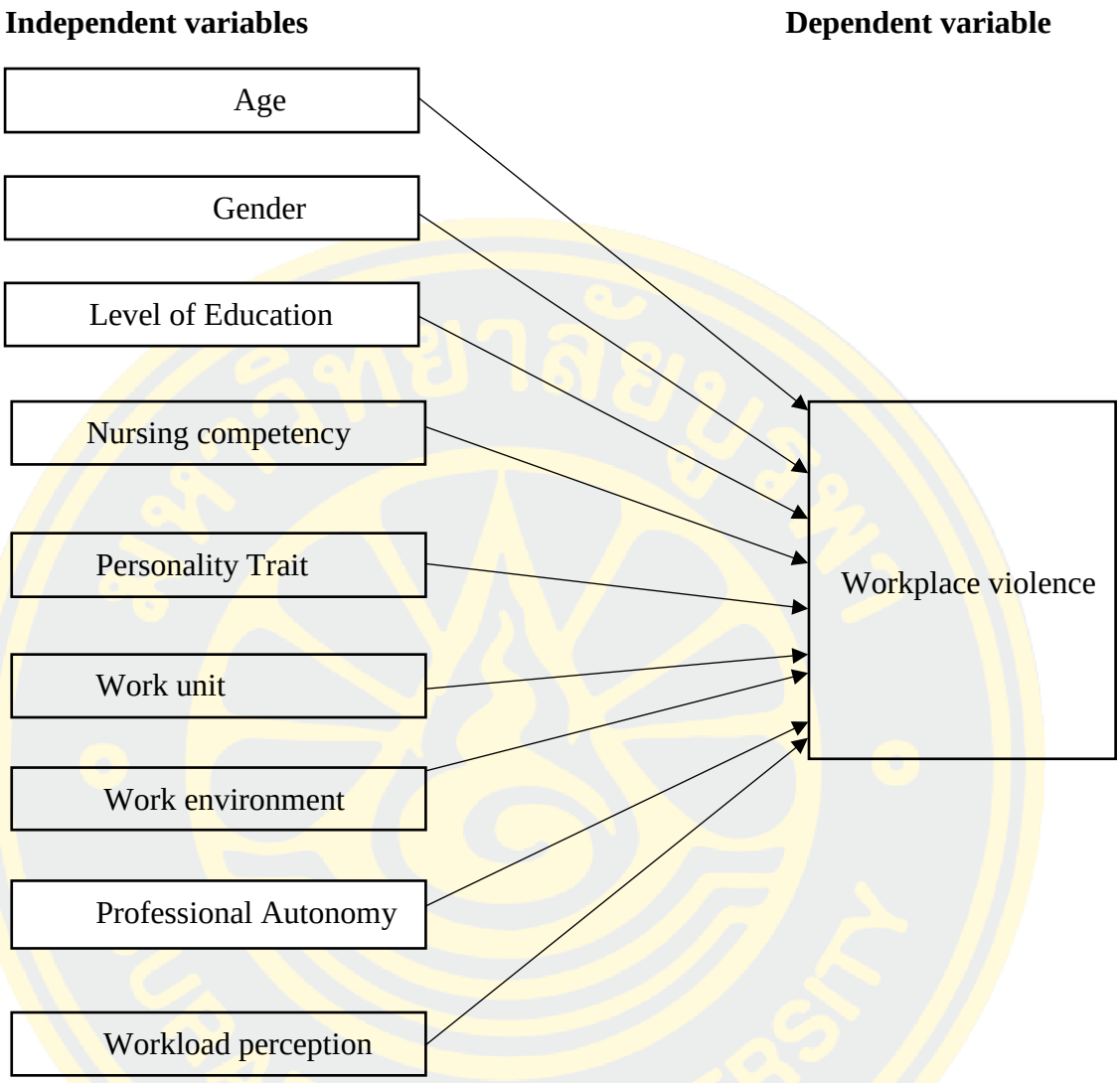
Bhutan. It was conducted in three referral hospitals: Jigme Dorji Wangchuck National Referral Hospital, Gelephu Central Regional Referral Hospital and Mongar Eastern Regional Referral Hospital. The data were collected from 18th of March till 3rd of April 2020.

Conceptual framework

Chappell and di Martino's model (Di Martino, 2003) and research evidence informed the conceptual framework for this study. According to this model, violence occurs as a result of interaction between a person's individual characteristics and their surrounding environment. Taking into consideration this model, workplace violence is said to results from the interaction of nurses' individual characteristics and the organizational factors. Nurses individual characteristics in this study refers to their age, gender, level of education, perceived nursing competency and personality trait.

Organizational factors refer to nurses' work environment, their area of work or unit, professional autonomy and nurses perceived workload. These factors together is found to influence WPV victimization against nursing staffs. Theoretically there is a negative relationship between age and WPV victimization (Di Martino, 2003) and female nurses are considered to be more associated to violence and harassment especially of sexual nature (Di Martino, 2003).

Level of education and competency of nurses are negatively associated with WPV, meaning WPV decreases as education level of the nurse advance. The personality of nurses also plays an important role in predicting violence, extravert personality trait nurses are negatively associated with WPV while neurotic personality trait nurses are positively associated with WPV. Conceptual framework is presented in figure 1. in the following page.



Figures 1 Research conceptual framework

Definition of terms

For the purpose of this study key terms are defined as following;

Workplace violence refers to a situation where nurses are abused, threatened, or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, wellbeing or health. Workplace violence is categorized as physical violence, verbal abuse, bullying/ mobbing and sexual harassment. The questionnaire is derived from "Workplace violence in the health sector country case studies research instruments survey questionnaire" developed by International Labor Office (ILO), the

International Council of Nurses (ICN), the World Health Organization (WHO) and Public Services International (PSI) (ILO & WHO, 2003). Four dimensions of WPV include 1) Physical violence which refers to the use of physical force against another person or group that results in physical, sexual or psychological harm. It includes beating, kicking, slapping, stabbing, shooting, pushing, biting, and pinching among other. 2) Verbal violence refers to intentional use of power, including threat of physical force, against another person or groups that can result in harm to physical, mental, spiritual, moral or social development. 3) Bullying/ Mobbing refers to repeated and over time offensive behaviour through vindictive, cruel, or malicious attempts to humiliate or undermine an individual or groups of employees. 4) Sexual harassment refers to any unwanted, unreciprocated and unwelcome behaviour of sexual nature that is offensive to the person involved, and causes that person to be threatened, humiliated or embarrassed.

Prevalence refers to the number of nurses who experienced workplace violence over the past 12 months prior to this survey.

Impact of workplace violence refers to the marked effect or influence on nurses' after experiencing workplace violence.

Age refers to number of years the nurses' have attained at the time of this survey.

Gender refers to either the male or female division of the participants as differentiated by the social or cultural roles and behaviour.

Level of education refers to the maximum level of qualification attained by the nurses in Bhutan.

Personality trait refers to the reflection of persons' characteristics patterns of thought, feeling and behaviours. Two subscales "Extraversion and Neuroticism" from "Revised Eysenck Personality Questionnaire short scale is used to determine nurses' personality trait (Eysenck, Eysenck, & Barrett, 1985).

Nursing competency refers to the ability of a nurse to demonstrate and integrate knowledge, critical thinking, affective, and psychomotor values and skills to perform particular professional care activities both ethically and safely. "A Short

Version of the Nurse Professional Competence Scale" is used to measure nurse's perceived competency (Nilsson, Engström, Florin, Gardulf, & Carlsson, 2018).

Work unit refers to the division of hospital by the speciality in which nurses currently work.

Work environment refers to the factors that enhance or attenuate a Nurses' ability to practice nursing skilfully and deliver high quality care. Nurses' work environment was evaluated using The Practice Environment Scale of the Nursing Work Index (PES-NWI) (Lake, 2002).

Professional autonomy refers to the extent to which individuals can choose how they carry out their work. Autonomy and control scale will be used to measure the work autonomy of the nurses (Haynes, Wall, Bolden, Stride, & Rick, 1999).

Workload perception refers to nurses' perception of being at work environment that arise from the nurse's workload such as inadequate time to complete nursing tasks and nurses have to work very fast and hard. Workload perception of the nurse is measured using questionnaire adapted from Quantitative Workload Inventory (Spector & Jex, 1998).

CHAPTER 2
LITERATURE REVIEW

In this chapter, the researcher reviewed existing literature and research on workplace violence and factors associated with workplace violence against nurses. The source of literature included e-database: CINAHL, Science Direct, Academic Search Complete, EBSCO, Scopus and internet search such as google scholars and data from Annual Health Bulletin of Bhutan. Combination of words and terms

"Nurses", "Workplace violence", "Prevalence", "Hospital Setting", "Physical violence", "Psychological violence", "Bullying", "Threats", "Mobbing" and "Sexual harassment" were used to retrieve the articles.

This chapter will describe briefly on nursing in Bhutan, the concept of workplace violence, inclusion of various types of workplace violence, prevalence and factors associated with workplace violence as perceived by nurses. The literature review is presented in following parts:

1. Brief background of nursing in Bhutan.
2. Concept and theories related to workplace violence.
3. Situation of workplace violence against nursing professional.
4. Factors influencing workplace violence.

Brief background of nursing in Bhutan

Currently there are 1202 nursing staffs working all around the country forming the largest group of health care professional at all levels of health care centres (Annual Health Bulletin, 2019). However, there is a decrease in nursing population compared to data from the previous year by 5% (Annual Health Bulletin (ABH), 2018). Health care centres are facing acute shortage of nursing personnel despite the increased supply of nurses. Ministry of Health, (2007) have also highlighted on inadequacy of health care worker both in terms of quantity and quality as one of their persistent and critical challenges. Bhutan has a shortage of more than 2201 medical professionals of various categories majority of them being nurses (Ministry of Health, 2019).

Despite this problem in hand, there is no study performed to investigate on factors causing chronic nursing shortage in Bhutan. To the best knowledge of the researcher, there is no published article on nursing shortage nor there are any investigation on factors leading to persistent shortage of nursing staffs despite the increased supply. However, many studies from the west have explored on various factors associated with WPV and nurses leaving their profession early. When there is acute shortage of nursing staff, the workload and pressure to perform ones' duty increases proportionally, many patients need go unmet, poor quality of care is delivered, increasing incidence of WPV and eventually leading the nurses to leave their profession.

Research works supports this statement with similar findings in their work setting (Aivazi & Tavan, 2015; Honarvar et al., 2019b; Sisawo et al., 2017; Zhang et al., 2017). When a nurse is working in a short staffed unit under time pressure, they first need to prioritize their time in order to make sure urgent needs of the patients are met. In doing so, many basic needs and demands of the patients go unattended. While the nurse is competing against his/her job demands, trying to achieve all that can be done in that short period of time, they become physically and mentally exhausted. On the other hand, patients whose needs are unattended grow unsatisfied with the attention they are deprived of and begin directing nonphysical violence against nurses. This cycle of WPV is thought to be persistent until and unless necessary intervention is taken to address it.

Many factors impact nursing performance in this changing time, one of these being rapid economic development. With the rapid economic development, there is an increase in the demand for high quality health care services (Thinley et al., 2017). Keeping in mind the acute shortage of nursing, this demand for high quality health care service is not met on many occasions. Many health care service users have expressed their dissatisfaction, frustration and aggression with the healthcare services informally through various social media platforms, thus these groups of people become potential perpetrators of violence against healthcare professionals.

Bhutan is known for its unique developmental philosophy "Gross National Happiness". This philosophy was developed by the fourth king of Bhutan Jigme Singye Wangchuck in 1972, the concept implies that sustainable development should

take a holistic approach towards notions of progress and give equal importance to non-economic aspects of wellbeing (Ura, 2015). The Gross National Happiness Index includes both traditional areas of socio-economic concern such as living standards, health and education and less traditional aspects of culture and psychological wellbeing. It is a holistic reflection of the general wellbeing of the Bhutanese population rather than a subjective psychological ranking of 'happiness' alone. Since this philosophy forms the foundation for every Bhutanese lives, this might act as a buffer in alleviating prevalence of violence directed towards nurses working in Bhutan.

In addition to above, there is no existing protocol or laws protecting healthcare professionals when such incidence occurs nor there is any awareness on this very important issue among Bhutanese nurses nor there is any procedure in place on how the nursing staff / victim can proceed. This can lead to nurses normalizing incidents of workplace violence in their professional life and accept it as a part of their job.

Thus it becomes very important for the researcher to explore WPV in Bhutanese health care setting. Taking into consideration the above mentioned factors, the researcher aims to investigate on the prevalence and factors influencing workplace violence as perceived by nurses working in Bhutan under the jurisdiction of Ministry of Health.

Concept and theories related to workplace violence

1. Definition of workplace violence

According to Chappell and di Martino, workplace violence is defined as "an incident where employees are abused, threatened, assaulted or subjected to other offensive behavior in circumstances related to their work" (Di Martino, 2003).

According to The Joint International Labor Organization, International Council of Nurses, World Health Organization and Public Services International workplace violence is defined as "an incident where staffs are abused, threatened, or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, well-being or health" (ILO/ICN/WHO/PS, 2002).

The Center for Disease Control and Prevention (CDC) National Institute for Occupational Safety and Health (NIOSH) defined workplace violence as “violent acts (including physical assaults and threats of assaults) directed toward persons at work or on duty (Centers for Disease Control and Prevention, 2002a).

The 2011 US Bureau of Justice Statistics defined WPV as “a nonfatal violence (rape/ sexual assault, robbery and aggravated and simple assault) against employed persons age 16 or older that occurred while they were at work or on duty”. Due to variation in the definitions as mentioned above and taking into consideration the differences in regional and cultural differences (Zhang et al., 2017) it is difficult to acquire a general knowledge of WPV. There might also be differences in how WPV is perceived by nurses working in different countries and regions due to differences in their Policies, Law and regulations and Culture on WPV in their organization.

Keeping in mind the various definitions provided above, for the purpose of this study WPV is concluded as “any incident/ situation during which a staff is abused, threatened or assaulted while at work or while commuting to and from work and have deleterious physical and psychological impact on the victim”.

2. Characteristics of Workplace Violence

From the review of literature following is known about WPV to date. Prevalence of WPV is still alarming and needs much attention. From the literature review it is found that highest report of WPV against nurses was reported in Iran at 86.9% (Shoghi et al., 2008) and lowest exposure to any kind of WPV was reported by nurses working in Hong Kong (Cheung & Yip, 2017) at 44.6% during the period of 12 months prior to data collection. The prevalence of overall WPV against nurses in the United States and the UK is however low at just 3.9% (US Department of Justice, 2011) and 36% (National Health Services, 2014) respectively.

Workplace violence is broadly categorized into physical and psychological violence/ verbal abuse (Banda et al., 2016). While physical violence has always been recognized and drawn much attention, psychological violence/ verbal abuse which comprise of threats, bullying and sexual harassments goes unreported and are underestimated most of the time. But with the recent development of research works, psychological violence against nurses is gaining the attention that it deserves for

addressing this issue and is manifested to occur more often than physical violence (Honarvar et al., 2019b; Jafree, 2017; Sisawo et al., 2017; Wei et al., 2016).

Physical violence is defined as an intentional behavior aiming to harm, injure or attack another person leading to actual physical harm. It includes beating, kicking, slapping, stabbing, shooting, shoving, snickering and biting (Aivazi & Tavan, 2015; Cheung & Yip, 2017). Prevalence of physical violence against nurses' ranges from 53.4% in a study conducted in Pakistan (Jafree, 2017) to 7.2% in a study conducted in Kuwait (Adib, Al-Shatti, Kamal, El-Gerges, & Al-Raqem, 2002). Physical violence is often the kind of violence perpetrated by mentally ill, alcohol intoxicated patients or elderly patients with central nervous system problems, most nurses thus perceive it not as WPV but rather a consequences from the perpetrators' disease condition and goes underreported in many cases.

Psychological/ verbal violence is one of the highest forms of WPV reported in almost all the studies with highest incident reported in a study conducted in Iran (Shoghi et al., 2008), where 87.4% of the nurses reported being verbally abused at their workplace. The lowest report of verbal/ psychological violence was in a study conducted by Cheung & Yip, (2017) in Hong Kong, where nurses reported their exposure to verbal violence at 39.2% only. Psychological violence is the highest and the most common form of WPV experienced by nurses.

Other forms of violence especially sexual harassment at workplace is reported at a very low rate compared to physical and psychological violence, which is found to be related to stigmatization and the victims perception that reporting such incident will only bring blame and shame to oneself as stated in a study in Pakistan (Jafree, 2017). Despite the low reported prevalence of sexual harassment, this form of violence has detrimental impact on both the physical and psychological well-being of victims and thus should be dealt seriously.

3. Theories related to workplace violence

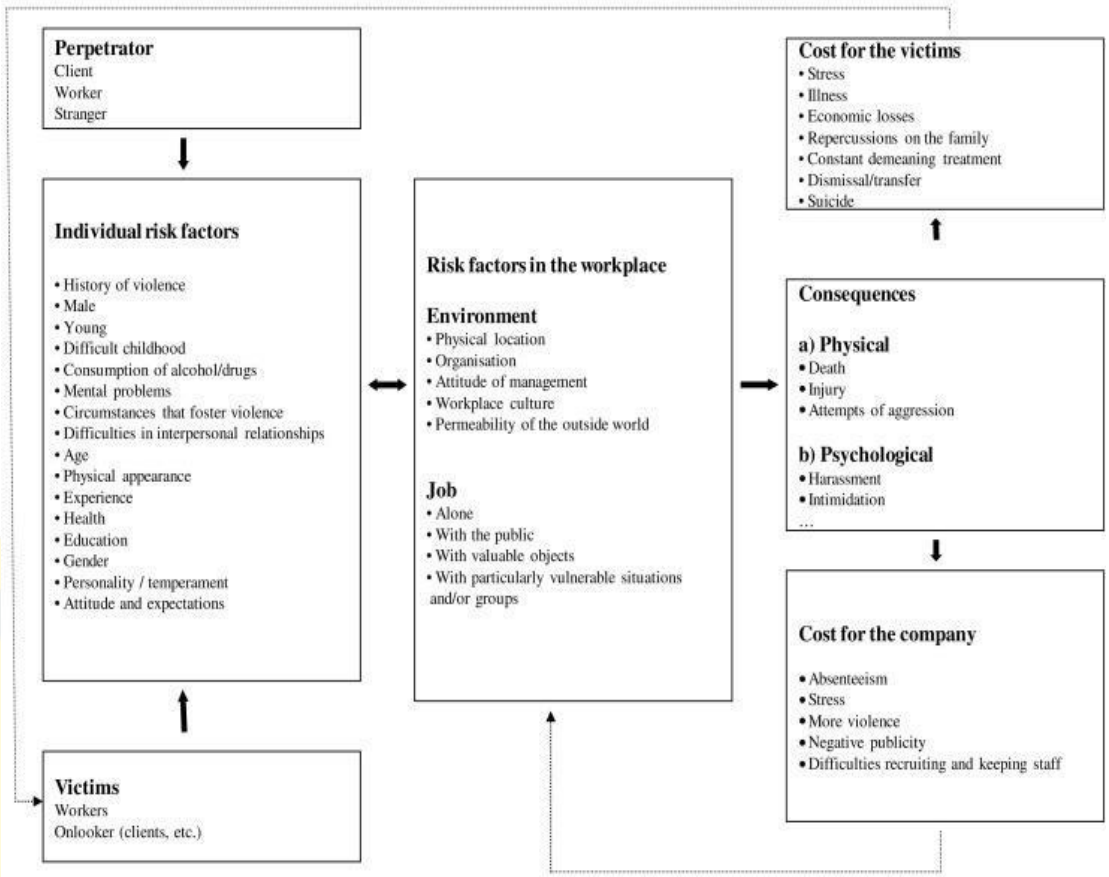
Numerous theories are available and developed to explain human aggression, however these theories require intensive investigation on the way a perpetrator or a victim is brought up in their early childhood period, parenting history and to the degree of their genetic predisposition. In this part we will look into

different human aggression theories which can be used to explain how violence is generated.

Human aggression is any behavior directed toward another individual that is carried out with the proximate (Immediate) intent to cause harm (Anderson & Bushman, 2002). In addition, the perpetrator must believe that the behavior will harm the target, and that the target is motivated to avoid the behavior (Baron; Berkowitz, 1993; Bushman & Anderson, 2001). However in human aggression theory accidental harm is not considered aggressive because it is not intended by the perpetrator. Harm that is an incidental by-product of helpful actions is also not aggressive, because the perpetrator believe that the target is not motivated to avoid the action (example the pain experienced during a dental procedure).

This concept of human aggression theory stated above however is in contrast to our study's definition of aggression/violence since in the healthcare industry as already mentioned, violence in emergency, psychiatric or geriatric units often results from perpetrator's who have mental disorders like dementia or head injuries, who do not intent to harm the healthcare workers but often end up harming them under the conditions of their underlying diseases. This kind of accidental by-product is however considered as violence in this study because of its physical and psychological impact on the nursing staffs.

Chappell-di Martino's model was utilized to guide this research (Di Martino, 2003) as shown in figure 1. This model is based on the interactive analysis of all the elements generating stress, linking together personal, occupational and environmental factors. Although theoretically both the perpetrator and the victim comes into consideration, this research will focus only from the view of victim, which is the nursing staffs. According to the model perpetrator of violence is categorized into three principles categories-a client of a particular enterprise (patient in this case), a colleague, or a bystander (in this study this group of perpetrator will fall under families/friends of the patient).



Figures 2 Showing the Chappell-di Martino model (Di Martino, 2003)

As stated by this model, individual characteristics of both the perpetrator and the victim play an important role in the determination of violent outburst. According to this model a situation becomes violent prone when people with conflicting personal characteristics comes into confrontation. Practically it is impossible to predict the occurrence of violence on this basis because of numerous available personality trait. Moreover, the environment in which an individual works or functions play a major role in the occurrence of violence, thus the prediction of occurrence of violence becomes very complicated, as the factors present in their work environment may inhibit or stimulate violence.

This model focuses more on the relationship between personal and environmental factors at work, their combined role is found to either help defuse a violence or ignite one. Personal factors mentioned in this model are mixtures of both the perpetrators' and the victims and since this study focuses on nursing staffs,

individual nurses' characteristic factors are mentioned here for the purpose of this study: age, gender, job title, personality variable, levels of professionalism, job title and training in violence prevention. This study studies almost all the factors which were determined by Chappell and di Martino in their model which were found to influence violence.

1. Individual characteristics: Age and experience of worker is said to either increase or diminish the possibility of violence. The model explains further that a person with previous experience of handling similar difficult situations, which is obviously associated with age, enables staffs to react more wisely than inexperienced staffs. This explains why younger inexperience nurses are at higher risk of violence compared to their seniors. The other factors like personality of a person plays an important role in considering risks of victimization. Some people can handle difficult and stressful situation in a calm manner while some becomes chaotic and lead to victimization. For this study, two personality trait from Revised Eysenck Personality questionnaire short scale was utilized to determine personality trait of nursing staffs to determine its role in determining the risk of WPV victimization (Eysenck et al., 1985).

The relationship between gender and violence is complex in health care industry with typically higher population of female employment. The model states that exposure to the risk of violence is particularly high for female. Female becomes a victim to particular types of violence, such as sexual harassment since most of the victims of this kind of violence overall is female. The situation is made worst for female when they are young and are on a short term job in health-sectors parallel to the evidences found in this literature review. The model also elaborates on the lower control over their jobs since majority of women still occupy less senior jobs than men in almost all working environment.

2. Organizational factors: As for the organizational factors it is further divided into firstly environmental factors where the model mentions about physical features, organizational setting, managerial style, workplace culture and permeability from external environment. Second task factors elaborate on situations such as working alone, working with public, working with valuables and working with people

in distress. In this research, environmental factor is divided into working environment of the nurses and the nursing profession like autonomy and perceived workload.

Environmental factors play an important role in the occurrence of violence, a good working environment enables good flow of work whereas poor working environment is found to produce excessive workload, slowing down performance, creating unjustified delays and queuing, developing stress and negative attitudes among the worker and eventually inducing aggressive behaviour among the patient or their family members.

Lack of consultation and communication is considered another significant factor generating violence at work, circulation of information and open communication can reduce these risks by defusing stress and frustration among workers which is in accordance with the literature findings. The model further explains that in health sectors where staffs come in contact with public, effective communication play an important role in preventing stress and violence. Such as in the hospitals, it is found that circulation of important information to patients, their friends and the family members' acts as one crucial factor in alleviating the risks of violence.

Finally, the model identifies the likely impact of all the relevant factors and situations on the victim and the organization, and assesses the "feedback" of this impact as a regenerator of violence at the workplace. It is a model that strongly emphasizes the difficulty of eliminating violence once it is in place and the absolute necessity of combating violence by preventive action on the above mentioned factors involved in the generation of violence.

Situation of workplace violence against nursing professional

Workplace violence is a widely-reported phenomenon among nurses, and the prevalence appears to be growing exponentially (Sato et al., 2013; Zhang et al., 2017). The National Crime Victimization Survey showed that health care workers have a 20% higher chances of being victims of WPV than other workers. The Bureau of Labor Statistics (BLS) data showed that violence related injuries were four times more likely to cause health care workers to take time off from work than other kinds of injuries. The Joint Commissions Sentinel events data reported 68 incidents of

homicide, rape, or assaults of hospital staff members over an eight-year period (Sentinel Event Alert, 2018).

According to the Bureau of Labor Statistics, census on fatal occupational injuries, the WHO reported that nearly a quarter of workplace violence occurred in healthcare institutes and that health care professionals were 16 times more likely to be attacked than the personnel of other industries are (Wei et al., 2016). Although all health care workers are at risk for some forms of violence when at work, nurses due to the nature of their job puts them at even greater risk for WPV. Nurses are considered as one of the few professional group most exposed to physical aggression, verbal abuse and threats because nurses have more frequent and longer contact with patients and families and are responsible for providing direct patient care (Wei et al., 2016).

Nurses are more prone to WPV because of the nature of their job, extensive amount of time spent with patient and their family members, nurses are usually the first and the most available personnel throughout the hospital thus putting them at increased risk to WPV exposure. Nurses presence in stressful situations like accidents, deaths, long waiting hours for physicians to do rounds, transferring patients to a ward or another hospital, predisposes nurses' to even more risk of violent behaviours from patients or their family members than other health care workers (Aivazi & Tavan, 2015; Shoghi et al., 2008).

Studies have been conducted to explore WPV against nurses in multiple settings: single unit (eg. Emergency department), multiple units (eg. Emergency and psychiatric unit) and some studies included all the units in a hospital. Differences in between countries, working environment and cultural beliefs plays an important role in either stimulating or inhibiting WPV against nurses.

A quantitative study performed by Speroni et al. (2013) found that the rates of violence exposure varied in different world regions and work settings. The review found that Anglo region had the highest reports of both physical violence and sexual harassment, and reported second lowest report of nonphysical and bullying. Asian countries reported lowest report on nonphysical and second lowest for physical, bullying and sexual harassment. Middle East countries reported lowest for physical violence and highest for nonphysical violence and bullying (Speroni et al., 2014). This quantitative study provides a picture of WPV exposure by world region and the

bottom line conclusion that nurses will have a high risk of experiencing various WPV when at work despite where they work.

A study in Iran found that unrealistic expectations by the patient's companions regarding their patient's care or repeated requests, non-observance of hospital rules by patients and their companions were significant triggering factors of WPV (Honarvar et al., 2019b). Family members were also found requesting nurses for providing cigarette, narcotics or alcohol to their patients and nurses refusal to such requests triggered violence against nurses in their hospital setting (Honarvar et al., 2019b).

Long working hours and exhaustion of the staff, inadequate number of staff and insufficient equipment's were the most common factors related to the hospitals' staff and management system that would be associated with occurrence of violence (Honarvar et al., 2019a). Another study in Iran found that insufficient nursing staff and improper security, non-prompt physicians' visits, and finally not meeting patients' urgent needs were the main reason for WPV against nurses (Aivazi & Tavan, 2015).

WPV is considered one of the complex and dangerous occupational hazards that nurses face (Sisawo et al., 2017). The Joint ILO/ICN/WHO and PSI study indicated that nurses were at three times more likely, on average, to experience violence in the workplace than other occupational groups. Nurses are subjected to physical and verbal abuse so frequently to the extent that these events were often considered or accepted as "*part of the job*" (Sisawo et al., 2017; Speroni et al., 2014).

Factors influencing workplace violence against nurse

For the purpose of this study, two main factors are taken into consideration in explaining the generation of violence against nurses in the hospital setting, these factors can influence WPV individually or their combined effect can influence WPV experience among nursing staffs. Organizational factors are further divided into environmental factors: nurses work environment and working unit, and nursing system: autonomy and the perceived workload of the nursing staffs. All the factors and their association with WPV is provided in detail as follows.

1. Nurses Individual characteristics

Nurses' individual characteristics such as: gender, age, marital status, educational qualification, personality trait and the perceived nursing competency were studied to find its influence in predicting WPV against nurses.

1.1 Age in years

According to the Chappell and Di Martino's model younger nurses are at increased risk of workplace violence victimization showing a negative relationship between age and WPV victimization. Many studies have also found nurses' age as a significant risk factor for experiencing WPV (Adib et al., 2002; Cheung & Yip, 2017;

Jafree, 2017; Shoghi et al., 2008; Speroni et al., 2014; Wei et al., 2016; Zhang et al., 2017). A study in Taiwan by Wei et al. (2016) found that younger nurses were significantly more likely to be exposed to all kinds of violence. It was further found that nurses between the ages of 26-35 years had the highest risk and the risks were substantially lower among the nurses aged 46 years and older which is in consistent with the study conducted by Adib et al. (2002) and Cheung & Yip (2017). A downward linear relationship between age and WPV is found (Cheung & Yip, 2017; Kamchuchat, Chongsuvivatwong, Oncheunjit, Yip, & Sangthong, 2008).

A logistic regression in a study conducted in Thailand by Kamchuchat et al., (2008) found that older age nurses had decreased odds of experiencing verbal violence with significant linear trend (OR =0.48 , $p < .05$). Meaning that as age increases, there is a decreasing prevalence of WPV, the research by Cheung et al. (2017) also found that younger nurses, age range between 21 and 34 years were at higher risk of experiencing WPV than older nurses (cOR 3.04-3.26). Another study in Iran by Shoghi et al. (2008) found significant relationship between nurses age and experiencing verbal abuse ($p < .01$) and physical violence ($p = <.01$). Shoghi et al. (2008) found that nurses aged 31-43 years were exposed to more physical violence, the age range in this study is however higher than the ones mentioned in above studies but nurses in this age group is considered younger taking into consideration the overall nurses age working in their setting in Iran.

These findings were contributed to younger nurses' lack of ability and skills in dealing with stressful situations which makes them easy WPV targets, of course keeping in mind the other factors. This phenomenon is also related to nurses'

short time being nurse and their lack of work experience and communication skills (Shi et al., 2017). Young, new nurses are consequently unable to interpret emotional ques of patient/ their attendants and take necessary actions, thus becoming victims of WPV. It is concluded from the above evidences that the age of the nurses are thus significantly negatively associated with WPV victimization.

1.2 Gender

Generally, females are considered to be more subjected to violence and harassment especially of sexual nature (Di Martino, 2003). According to the model female gender are more prone to becoming victims of WPV compared to male gender. However, research findings on gender role in violence exposure is not clear, with literature findings presenting inconsistency in identifying whether male or female nurses are more exposed to violence at workplace.

However, from this literature review, gender significantly influenced WPV. Male nurses reported higher rates of both physical and nonphysical violence (Adib et al., 2002; Aivazi & Tavan, 2015; Camerino et al., 2008; Cheung & Yip, 2017; Shoghi et al., 2008; Wei et al., 2016), which is in contrast to the what the model states. Adib and colleagues found RR estimates ranging from 1.25 to 1.64 in their study. The reason for this was due to belief of some cultural expectations attached to masculinity which explains this gender bias in reporting WPV. The researchers also stated that male nurses are socialized to play a masculine role, suggesting they are less likely to bow to others' unreasonable abuse and criticism of their work (Cheung & Yip, 2017). Another conclusion for this finding is because male nurses may feel uncomfortable at some level with feminized caring roles they are expected to fulfil, due to this they are more likely to interpret criticism from patients as abuse.

Studies also found relationship between gender and violence type, it was found that male gender were positively associated with physical violence (Zhang et al., 2017) while in another study they found male nurses at significantly higher risk for verbal assault (Adib et al., 2002). From the above findings of the literature review it is concluded that male nurses are found to be positively associated with violence at workplace compared to female nurses'.

1.3 Level of Education

According to the Chappell and Di Martino's model, worker with lower job status with lower control over their jobs are positively associated with WPV (Di Martino, 2003). Similar findings are found in this literature review. Nurses' level of education was associated with WPV although it is not clearly determined whether the risk increases with higher or lower levels of education of the nurse.

In Iran it was found that there was statistically significant relationship between nurses' position to both verbal abuse ($p < .05$) and physical violence ($p < .001$) (Shoghi et al., 2008). Nurses with lower position had increased risk to violence, which was due to their close relationship with patients or their family members or the way they treated patients. In the European NEXT study, it was found that nurse aids and nursing attendants were at increased risk of experiencing both physical and verbal violence (Camerino et al., 2008; Shoghi et al., 2008) which is in consistent with findings from a study conducted in Gambia were nurse attendants were also found to be significantly associated with exposure to physical violence (Sisawo et al., 2017).

However, in contrast to the above findings, other studies found that nurses with higher levels of education had around 35-53% higher risks compared to nurses who held lower levels of education (Wei et al., 2016). This study found that nurses with baccalaureate degree or higher degrees reported more WPV than those without degree. This was because better educated nurses were found to report such incidents to their supervisors seeking for advice, hence increasing the incidence of increased reporting among these groups of nurses.

Another reason was that better educated nurses maybe less disposed to tolerate any kind of WPV, thus less likely to suffer from WPV in silence (Wei et al., 2016). Another theory that explained this finding was that nurses with better academic preparation maybe less exposed to WPV in their clinical settings and possess less skills to head it off. From these findings and the theoretical view, it is concluded that WPV is negatively associated with nurse's educational qualification, WPV decreases as the level of education of the nurses' advances.

1.4 Personality trait

From a theoretical point of view, personality trait is found to influence how one might react in stressful situations. Some personality types are considered more prone to violence while some personality are at less risk for WPV. From the literature review, it is found that nurses' personality trait was associated with WPV experience. It is found that extraversion personality trait was negatively associated with work related anger and irritation, whereas neuroticism personality trait was positively related to irritation and anger (Wang & Zhang, 2017). This portrays that an extravert nurse will be less likely to feel stressful and experience negative emotions during their work while the neurotic personality trait nurses shows otherwise.

Another study found that most of the abused nurses with higher levels of extraversion and low levels of neuroticism had significantly higher resilience, which helped them to overcome WPV impact (Hsieh, Hung, Wang, Ma, & Chang, 2016). Evidence have shown that extraversion personality trait people have better problem solving skills and better management of critical situations, leading to decreased friction and decreased exposure to violence at work.

From the above evidence it is thus concluded that extravert personality trait nurses are negatively associated with workplace violence and that neurotic personality trait nurses are positively associated with workplace violence.

1.5 Nursing competency

Nursing competency is defined as the ability to demonstrate and integrate knowledge, critical thinking, affective, and psychomotor values and skills to perform particular professional care activities both ethically and safely (Obeidat et al., 2018). The model of Chappell and Di Martino (2003) takes into consideration the levels of professionalism of the victim as one of the factors associated with WPV. The more professionalism one display at their work, the less chances one have in experiencing violence.

Literature review have found that nurses' who are proficient in their nursing skills and knowledge experiences less WPV and vice versa. A study found that nurses with more clinical competencies are less likely to experience work-related bullying (AL-Sagarat, Qan'ir, AL-Azzam, Obeidat, & Khalifeh, 2018). Another study concluded with the same result and the researcher further explained that younger

nurses with less work experience and competency puts them at a hostile situation at their workplace and hence more prone to WPV (Ekici & Beder, 2014). Higher perceived nursing competency acts as an inhibiting factor of WPV according to this literature review. Due to the evidences gathered above it shows that nursing competency is negatively associated with WPV, meaning as nurses competency increase there is less chance of experiencing and becoming a victim of WPV. Hence it is concluded that nurses' competency is negatively associated with WPV victimization.

2. Organizational characteristics

Under organization, two main variables are explained: work environment and nurses working unit. Under work environment factors like managerial support system, relationship between the colleagues and adequacy of both staffs and resources are explained. Nurses' current working unit is considered separately for this study even though it falls under work environment because this literature review has found that many studies have focused on one particular unit but current study will include all the units in the hospital where nurses are employed.

The review have also concluded that nurses working unit have significant impact on WPV. A part of this study will focus on the determination of relationship between nurse's work unit and WPV as perceived by Bhutanese nurses, hence a separate platform is given to nurses' working unit. Although it is not limited to just the above mentioned factors, this study will be limited to study only the factors which is found to be significantly associated with WPV against nursing staffs. A Detailed pathway of how these factors are associated with WPV will be provided as follows.

2.1 Work Unit

Theoretically the relationship between the unit in which a nursing staff works and WPV is broad. From theory it found that nursing staffs working in inpatient and psychiatric units are positively associated with experiencing WPV. However, from the literature review, prevalence of WPV differs in different clinical setting be it inpatient or outpatient. Majority of the studies have found that nurses working in emergency, intensive care, pediatric and psychiatric units experienced WPV more frequently compared to nurses working in other units around the hospital

(Honarvar et al., 2019b; Lin & Liu, 2005; Spector et al., 2014; Speroni et al., 2014; Wei et al., 2016; Zhang et al., 2017).

In China a study by Zhang et al. (2017) found that nurses working in emergency, intensive care unit and pediatric units were at increased odds of experiencing WPV. In pediatric unit, excessive concerns and the tension among the parents of the patients is thought to elevate nurse-patient conflict. Another reason for this finding in China was that the patients are likely to be their parent's only child and parents become overindulged in their child's welfare and treatment plan (Shi et al., 2017).

In emergency department nurses come in contact with high risk patients, such as patients experiencing an episode of mental illness or inebriated patients, and long waiting times are determined to be precipitating factors of potential violent behaviors from both the patients and their attendants. Another study in China stated that emergency department nurses come across most serious patients in complex situations, such as traffic accidents, food poisoning and patients with alcoholism. Further patients' relatives maybe very worried, if nurses' do not share information with them on a regular basis combined with inadequate communication skills, it provokes unnecessary conflicts. Importance of communication flow is highlighted in the model of Chappell and di Martino as explained earlier in this study.

A study in an urban/ community setting in the mid-Atlantic region of the United States (Speroni et al., 2014) found significantly higher incidence of WPV in emergency ward at their setting was mostly perpetrated by patients with mental health diagnosis (43.5%), persons under the influence of drugs (42.5%), and alcohol intoxication (40.0%). The study in Taiwan (Wei et al., 2016) found that the prevalence of experiencing physical violence was highest in an emergency room or intensive care unit (55.5%) followed by general wards, the operating or delivery rooms compared to OPD nurses.

However, some studies found that emergency nurses at their setting were not associated with higher rates of WPV compared to nurses working in other units (Honarvar et al., 2019b) and another study found that ER nurses reported the lowest WPV at only 10% compared to nurses working in labor (80%) and neonate (80%) (Aivazi & Tavan, 2015). Also a study in Gambia (Sisawo et al., 2017) found

that OPD nurses reported highest violence in forms of physical, verbal and sexual harassment. The researcher explains that in Gambia, a huge number of patients visit OPD compared to other units and that OPD in public secondary health care facilities need to attend to both accident/ emergency victims in addition to providing regular OPD services, consistent with Bhutanese working environment. So this huge number of patients, which eventually leads to longer waiting time combined with nursing shortage is thought to make patients aggressive and more likely to commit violence against health workers in OPD.

Nurses in both the ER and OPD settings serve as front-line health care providers with increased direct contact with public, which in turn significantly increases their risk of exposure to violent behaviours from aggressive patients and their relatives. From the above finding it is concluded that nurses working unit is strongly associated with WPV.

2.2 Work environment

The Chappell and di Martino model (Di Martino, 2003) highlights on working environment including the physical and organizational settings which can greatly influence violence. Theoretically it is further explained that poor organization may lead to disruption in the system and for instance poor organization is found to cause excessive workload, slowing down of the performance, creating unjustified delays and queuing, develop stress and negative attitudes among workers and induce violence among their patients/ family members/ friends.

Work environment of nurses discusses on various environmental factors under which nurses perform their duties such as hospital management, adequacy of staff and resource, relationship between co-workers and physician, nursing organization, etc. A study found that long working hours and exhaustion of the staffs as a result of inadequate number of staffs and equipment were the most common factors related to hospital staff and management system that was associated with occurrence of violence (Aivazi & Tavan, 2015; Honarvar et al., 2019b).

Another study found that physical violence was significantly associated with nurses' participation in hospital affairs and collegial nurse physician relationships. Whereas nonphysical violence was associated with foundations for quality of care, staffing and resource adequacy (Zhang et al., 2017). The above

finding was thought to occur because when the nurses are working in an environment where there is constraint in resources and workforce, their workload increases automatically and there is delay in providing nursing care. Nurses prioritize their limited time in order to attend to critical patients need in doing so, some patients' needs and demands often goes unattended thus making them unsatisfied. These unsatisfied patients may begin directing nonphysical violence towards nurses (Zhang et al., 2017).

Another study in Gambia (Sisawo et al., 2017) found that shortage of drugs and nursing staffs as fundamental factors triggering aggressive reactions. Shortage of staffs was found to be cardinal factor for long waiting time thus making clients/ patients bored and impatient. Such frustrations are found to engender remarks from patients like "nurses are inefficient and incompetent" and in some situations leads to physical confrontation. A European NEXT study (Camerino et al., 2008) also found that shortage of nurse at the worksite was associated with higher frequency of many types of violence. In addition, they found strong relationship between lower quality of interpersonal relationships and higher frequency of exposure to harassment from both supervisors and colleagues.

A study in Japan (Sato et al., 2013) found that nurses were reluctant to report violence because of the unwillingness of their managers to defend them. In short managers' unwillingness to defend nurses as perceived by nurse victims was strongly negatively associated with frequency of report of aggressive behavior by nursing staffs (Sato et al., 2012). Another study found similar results, illogical reactions from their supervisors kept the nurses from reporting WPV (Shoghi et al., 2008). Thus it is concluded that poor work environment is strongly positively associated with WPV and vice versa.

2.3 Professional autonomy

Like many other hospitals around the world, nurses' form the largest professional group in any level of care in Bhutan and nursing shortage have presented as a persistent challenge for the Ministry of Health. Nurses are frontline staffs who comes in contact with public on their daily work life, nursing roles and responsibilities around the world is similar but one fact which might be different from the regular practice overall is, in Bhutan despite the regular inpatient unit duty that

nurses are responsible form they are also accustomed to take on extra roles after office hours, during weekends and government holidays.

Regular inpatient department nurses are responsible to provide services to all the patients who comes to their setting on out-patient basis for services like dressings, immunization and emergency deliveries. This increases workload and with poor to almost no security protection during the above mentioned occasions it puts nursing staffs at a very vulnerable position to WPV not just from the patients and their families but from a stranger as well.

Nursing is still under medical profession, nurses are evaluated and rated by medical doctors with regard to their annual work plan rather than their nursing supervisors. Nurses are still considered as doctors' assistant by majority of the population. Because of the above reasons, when patients and their families are unsatisfied with their treatment plans, they usually find it easy to express their emotion toward nurses. This is just one such situation explaining nursing system in Bhutan which might help explain its role in WPV experience. In this section of nursing system, further explanation on autonomy and workload is provided to determine their relationship with WPV.

To clarify the concept of autonomy mentioned in this study, it is important to understand its definition since there are numerous levels of autonomy and different instruments are available to measure different concepts of autonomy. The type of autonomy studied in this study refers to the extent to which an individual can choose how they carry out their work.

From a theoretical point of view, people who have lower levels of control over their work are positively associated with experiencing stress and violence. Lack of autonomy which is a characteristics of the nursing profession and the high workload or work demand among nurses is found to interplay to make WPV a prevalent problem among nurses (AL-Sagarat et al., 2018). The same study also stated that lack of organized work environment, lack of a clear job description and scope of practice for nurses, staffing shortage, ineffective teamwork, lack of autonomy, and management policy in Jordanian healthcare system played an important role in the prevalence of high workplace bullying.

A Chinese study found that poor nurses' participation in the hospital affairs and collegial nurse-physician relation directly reflects the status of nurses in hospital and departments and this directly reflects the social status of nurses in their local community. From the above findings it is assumed that the higher the social status, the more autonomy is one's profession and the more respect one acquires, thus lower likelihood of being at risk of WPV. With the autonomy of profession there is increased authority to control their work. It is concluded that work autonomy is negatively associated with WPV.

2.4 Workload perception

High workload could be explained to a greater extent by staffing level. As mentioned above, nurses have reported staffing shortage as one significant triggering agent of WPV. The pathway is simple when there is severe staffing shortage, workload of the remaining nurses' increase exponentially, many patients needs go unmet, generating anger and frustration among this population against nurses, and thus nurses become victims of WPV.

A study in Bhutan on nurse staffing workload, supervisory social support and job satisfaction of nursing staffs found that average number of patients per nurse ranged from 5 to 23 patients with an average number of 14 patients (Norbu, 2010). The study also revealed that nursing staffs had high levels of workload perception in general, especially in district hospitals and other regional referral hospitals in Bhutan. Nurses are responsible to take care of patients who visits hospitals after regular outpatient department (OPD) duty hours and also for those patients who visits hospitals on weekends and government holidays because OPD remains closed on those days. Additional number of patients that nurses have to render their services to with already allocated limited resources for inpatient unit patients' and to make the matter worst during holidays, there is poor security system thus all of these factors combined together puts nursing staffs working during holidays and after office hours at a very high risk to various WPV. Workload of the nursing staffs is thus found to have a very strong positive relationship to WPV.

Summary

Review of the literature indicated that nearly all nurses experienced at least one type of violence while working as nurse. Prevalence of psychological violence was the highest and sexual harassment the lowest reported form of violence at workplace by nurse. Experience of WPV depends on many factors including the nurses' individual characteristics (age, gender, marital status, personality trait, nursing competency, educational qualification) and the characteristics of the work environment (managerial support, workload, relationship between other medical professionals, etc.) in which they perform their work. Although relationships have been established from the conceptual framework as stated above, many literature shows otherwise and this creates a great opportunity for the researcher to explore this phenomenon in Bhutanese setting.

WPV is a major challenge to workplace safety for nurses in hospital. Epidemic of WPV against nurses should be considered a strenuous and health threatening crisis as it has detrimental impact on both physical and psychological wellbeing of nurses. It also has serious impact on the care receivers and organization as a whole. If comprehensive and urgent interventions are not in place to overcome this phenomenon and its consequences it will eventually lead to poor work performance, poor organizational status and attrition of nurses from nursing profession.

CHAPTER 3
RESEARCH METHODOLOGY

A cross-sectional quantitative research approach was used for this study. The purpose of this study was to determine prevalence of workplace violence, impact and factors associated with workplace violence against nurses working in Bhutan. This chapter presents study setting, population, sampling method, sample, data collection procedure, protection of human subjects and data analysis.

Research Design

A predictive study with cross-sectional design was used for this study, since this research involves establishing strength and direction of relationships between or among variables, with the intention of predicting the value of workplace violence based on the values of other variables. A cross-sectional study is said to be appropriate for describing the status of phenomena or for describing relationships among phenomena at a fixed point in time (Polit, & Beck, 2004, p.166).

Population and Sample

This study was conducted in hospitals under the jurisdiction of the Ministry of Health (MoH), Bhutan: Referral Hospitals. According to the Annual Health Bulletin 2019, there were 1202 nursing staffs working in and around the country which formed the population of this study. Sample size for this study was calculated using G*Power 3.1 software (Faul, Erdfelder, Buchner, & Lang, 2009). Using a conventional power estimate of 0.8, with alpha level set at 0.05, and effect size of 1.49 (An & Kang, 2016), it was estimated that for a logistic regression analysis the total sample size was 168 nurses. Taking into consideration the refusal rates from previous studies conducted with nurses (Norbu, 2010; Pemo, 2004), it was estimated at 21%. Therefore, the total sample for this study was 204 nursing staffs due to the anticipated non-response and to enhance the power of the study.

Inclusion criteria:

1. Participants have worked for at least 12 months in their current workplace prior to data collection.

2. Provides direct patient care.

3. Participants can be both male and female nurses with age ranging from 20 till 60 years can participate in this study.

3. Willing to participate in this study.

Exclusion criteria:

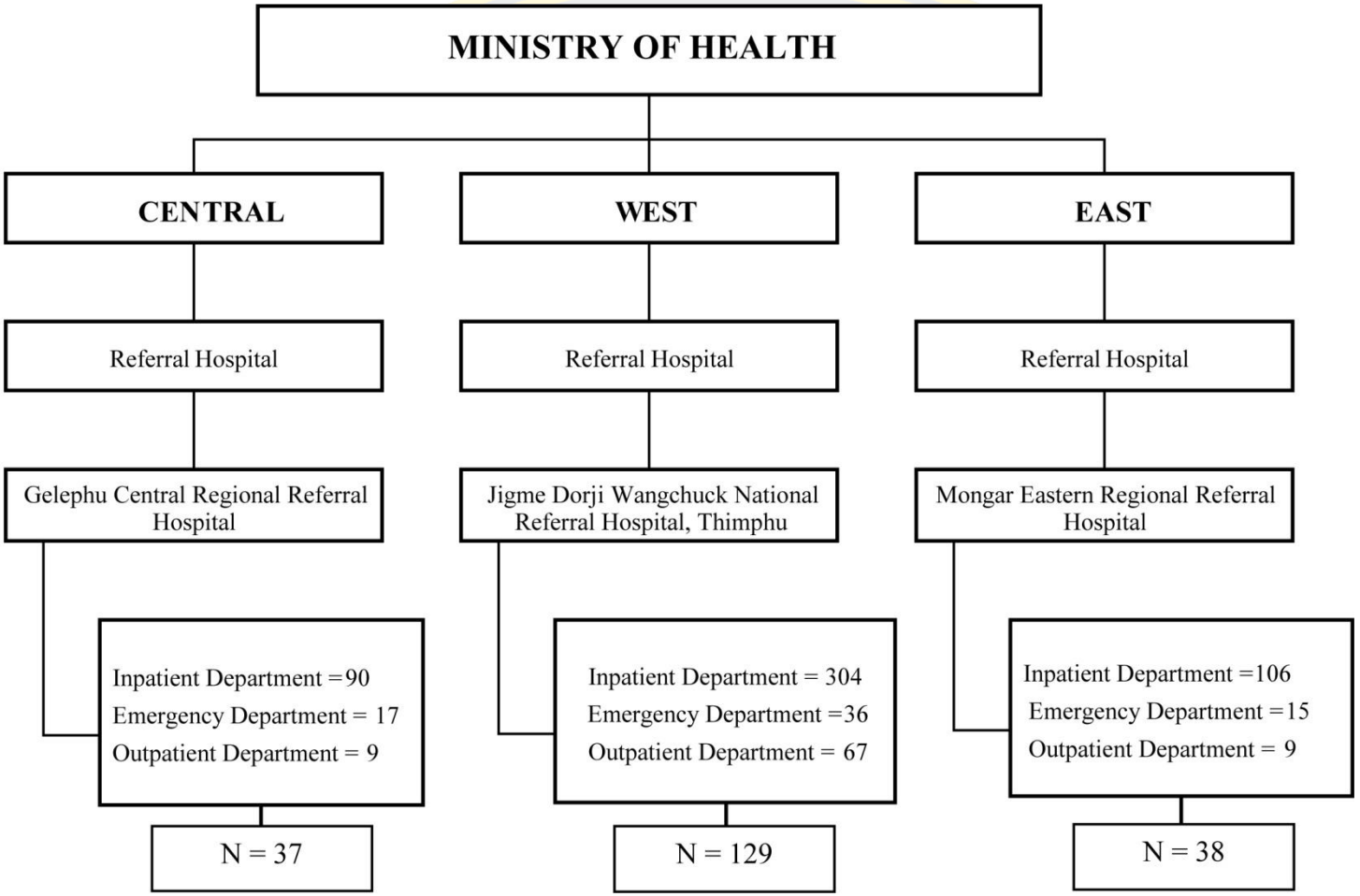
1. Holding administrative responsibility.

Sampling method

Simple random sampling was used for this study. Firstly, three regions; West, Central and East was assigned to represent all the nurses working around the hospitals in each region of the country. Secondly, the researcher randomly selected the Referral hospital from each region: Jigme Dorji Wangchuck National Referral Hospital from the West, Gelephu Regional Hospital from the Central and Mongar Regional Referral Hospital from the East. Simple random selection was done through writing the names of the hospitals on a piece of paper and randomly selecting it.

Thirdly, the researcher used proportionate sampling to obtain the sample size and following sample size from each region was obtained: 129 sample from West, 37 sample from Central and 38 sample from the East. Lastly the sample from each referral hospital was selected through simple random sampling using systematic sampling as the researcher had information on all population of nurses working in each hospital. This process involved selecting every k^{th} individual on the list, using a starting point selected randomly to maintain randomization and increase generalizability. K^{th} individual was calculated using the following formula (Gray, Grove, & Sutherland, 2016). *K* calculated was 3, meaning every 3^{rd} nurse on the list was approached to complete this questionnaire.

$$K = \frac{population\ size}{sample\ size\ desired}$$



Figures 3 Sampling method

Measurements

Seven self-reported questionnaires was used in this study: demographic data questionnaire, workplace violence in the health sector country case studies research instrument survey developed by The Joint ILO/ICN/WHO/PSI project measured the prevalence and impact of different types of workplace violence, Short Version of the Nurse Professional Competence (NPC) Scale (Nilsson et al., 2018) was used to assess perceived competency of nursing staffs, Practice Work Environment Scale-Nursing Work Index (Lake, 2002) was used to evaluate the nurses' work environment, Revised Eysenck Personality Questionnaire Short Scale (Eysenck et al., 1985) was used to assess personality trait of the nurses, Autonomy and Control Scale (Haynes et al., 1999) was used to assess nursing professions autonomy and Workload perception questionnaire (Spector & Jex, 1998) was used to measure workload perception of the nurses. Questionnaire was in English language since all the nurses in Bhutan can read and write English proficiently.

1. Demographic Data Questionnaires

This part was developed by the researcher. Demographic data questionnaire was used to assess demographic characteristics of the participants including; age, gender, marital status, unit/ward, years of working experience in nursing profession and their level of education.

2. Workplace violence survey questionnaire

Workplace violence survey questionnaire (ILO & WHO, 2002) was used to measure the prevalence and impact of different types of workplace violence. It was developed by The Joint Program of The International Labor Organization (ILO), International Council of Nurses (ICN), World Health Organization (WHO) and Public Services International (PSI). This survey was designed to assess the prevalence of workplace violence in the health sector.

Section B and section C of the main questionnaire was used to fit this study's purpose and to be applicable in Bhutanese healthcare settings. Section B of the questionnaire measured physical violence and section C measured psychological violence which constituted of; verbal abuse, bullying/ mobbing and sexual harassment. This questionnaire will find the prevalence of various WPV described above through Yes or No question.

3. Short version of the Nurse Professional Competence (NPC) Scale

Short version of the nurse Professional Competence Scale was used to assess the perceived competency of the nursing staffs (Nilsson et al., 2018). The short version of the NPC scale consists of 35 items with six subscales: Nursing care, Value based nursing care, Medical and technical care, Care pedagogics, Documentation and administration of nursing care and Development, leadership and organization of nursing care. Nurses were asked to indicate on a seven-point Likert scale, ranging from 1= *very low degree* to 7 = *very high degree* with higher scores representing higher competency and vice versa.

Cronbach's alpha for the five subscales are as follows: Nursing care .76, Value based nursing care .71, Medical and technical care .79, Care pedagogies .82, Documentation and administration of nursing care .86, Development, leadership, and organization of nursing care .84. Cronbach's alpha for this study was .99. A factor analysis indicated that Cronbach's alpha of more than .7 shows moderate reliability of the instrument (Norman & Streiner, 2008). NPC scale have shown to have good construct validity (Nilsson et al., 2018).

4. Practice Environment Scale-Nursing Work Index (PES-NWI)

PES-NWI was used to evaluate the nurses' work environment (Lake, 2002). This scale consists of 31 items with five subscales: Nurse Participation in Hospital Affairs; Nursing Foundations for Quality of Care; Nurse Manager Ability, Leadership, and Support of Nurses; Staffing and Resource Adequacy; and Collegial Nurse-Physician Relations. The PES-NWI uses a four-point Likert scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*, to identify factors present in the work environment that support nursing's ability to deliver high quality care. A higher score represents a favourable nursing practice environment. Scores above the midpoint of 2.5 indicate a favourable practice environment and those below the midpoint are considered to be unfavourable [(Lake, 2002) as cited in (Swiger et al., 2017)].

Cronbach's alpha coefficient of the scale was .82 and the coefficient for each subscales ranges from .71 to .84 in the previous studies (Gu & Zhang, 2014). Cronbach's alpha for this scale in this study was .97. Cronbach's alpha of .80 is considered to represent strong reliability (Gray, Grove & Sutherland, 2017). PES-NWI is also found to have good content validity as the study conducted between

Magnet and Non-Magnet hospitals showed high discriminant ability of this instrument (Lake, 2002).

5. Revised Eysenck Personality Questionnaire Short Scale (EPQ-RS)

Revised Eysenck personality questionnaire short scale was used to assess personality trait (Eysenck et al., 1985). It was developed by Eysenck et al. (1985), only two subscales was measured in this study; Extraversion and Neuroticism. The revised questionnaire contains 12 items for extraversion items measuring an individual's sociability and 12 items measuring an individual's emotional dysfunction/ neuroticism. The respondents were asked to answer "Yes" or "No" with scores of 0 and 1, respectively. Higher scores represented more tendency of the corresponding trait. The Kuder-Richardson 20 (KR-20) for extraversion and neuroticism were .61 and .84, respectively, showing moderate to strong reliability of the instrument. KR-20 for this study was .71 and .80 for extraversion and neuroticism respectively.

6. Autonomy and Control Scale

Professional autonomy was measured using questionnaire adapted from perceived work characteristics for health services research (Haynes et al., 1999). It contains 5 point Likert Type scale ranging from "1" *not at all* to "5" *completely* with higher score representing high autonomy and vice versa. Reported internal reliability for autonomy/ control is .88 in previous study (Haynes et al., 1999) showing moderate to strong reliability. Cronbach alpha of this scale for this study was .64.

7. Workload Perception Questionnaire

Workload perception of the nurses was measured using questionnaire adapted from Quantitative Workload Inventory (Spector & Jex, 1998). QWI is a five item scale, respondents were asked to indicate the frequency of the occurrence of each statements. There were five response choices from "*less than once per month or never*" to "*several times per day*". The responses were then summed and divided by 5 to provide a mean score. Higher scores represented higher levels of workload. Cronbach's coefficient for this scale was .86 in previous study conducted in Bhutan (Norbu, 2010) showing strong reliability. For this study, the Cronbach's coefficient of this scale was .87.

8. Impact of workplace violence

Impact of workplace violence against nurses was measured by using workplace violence survey questionnaire. Section A question no.9, section B question no.7, section C question no.7 and section D question no.7 were examined on various impacts of WPV on the victims. The questionnaire is further divided into four subsets, the participants were asked four different questions and asked to rate their perception on how they reacted after experiencing workplace violence.

Psychometric properties

Validity

All the research instruments used in this research were not tested for the validities since all the instruments are standardized instruments and their validities have been established.

Reliability

The internal consistency of the short-scale Eysenck personality questionnaire-revised was tested using Kuder-Richardson, other instruments like short version of the nurse professional competency scale, practice environment scale of the nursing work index, autonomy and control scale and workload perception was tested for their internal consistency using Cronbach alpha coefficient analysis before conducting the actual study.

A pilot study with 30 nurses with same characteristics of the study sample working at National Referral Hospital, Thimphu was conducted to measure reliability. These nurses however did not participate in the main study. The pilot study was conducted on two days where the researcher randomly selected 2 nurses each from inpatient units, outpatient and emergency department totalling up to 30 nurses. The acceptable value for internal consistency using Kuder-Richardson 20 was considered at $\geq .50$ (Kellar & Kelvin, 2013) and the acceptable value using Cronbach alpha coefficient analysis was considered at .70 (Tavakol & Dennick, 2011).

Ethical consideration

Approval for conducting the study was obtained from the Institutional Review Board (IRB) for graduate studies, Faculty of Nursing, Burapha Univeristy, Thailand (G-HS 004/2563). Upon approval, proposal was forwarded to the Research Ethics Board of Bhutan (REBH), Ministry of Health (Ref.No.REHB/ Approval/ 2019/ 111). After this approval, permissions were obtained from all the hospital heads under this study with the letter seeking permission for data collection along with the purpose of the study.

The researcher travelled to Western and Central Referral hospitals personally while nursing superintendents in the Eastern Regional Referral Hospital were approached via telephone to act as research coordinator as the researcher was unable to travel for some safety reasons and time constraint. The researcher explained the purpose of the study, inclusion and exclusion criteria, the voluntary basis of participation and the importance of providing informed consent before starting the questionnaire to all the participants. The researcher also informed the participants that the participants could leave the questionnaire at any time if they wish to discontinue and that it would not hamper their professional career. To ensure anonymity and confidentiality, participants were informed not to mention any names against the questionnaire nor did the researcher used any code to identify the participants.

To further maintain confidentiality of participants from Eastern Regional Referral Hospitals and to ensure that the data were accessible only to the researcher, individual nurses completing the questionnaire were asked to secure it in an envelope provided by the researcher and seal it with their own signatures. The completed questionnaires from participants in the Eastern Regional Referral Hospital were then given to their nursing superintendent/ research coordinator. Research coordinator forwarded the completed questionnaires back to the researcher via prepaid postal service. As for the National Referral hospital and Central Regional Referral Hospital, researcher personally collected back all the questionnaires. A period of two weeks from the date of disseminating the questionnaires was provided to complete the questionnaire.

Data collection procedure

Data collection was carried out after the approval and permission letters were obtained from the respective authorities from 18th of March till 3rd of April. Data collection process consisted of following:

1. The researcher first contacted Ministry of Health (MoH) for obtaining information on all the nursing superintendents who were currently working under the selected hospitals for this study. Nursing superintendents were approached and asked to act as research coordinator to help the researcher for the successful completion of data collection.

2. The researcher travelled to National Referral Hospital and Central Regional Referral hospital personally, while nursing superintendent at Eastern Regional Referral Hospital was approached via telephone. Introduction of researcher were made to the nursing superintendent and information on the name list of all the nurses working at their respective hospitals with no serial number mentioned were obtained.

3. The researcher started sample recruitment as described above.

4. Information on participant recruitment was given to the nursing superintendent in the East as the researcher could not personally travel to the study site.

5. The researcher contacted the nursing superintendents once again. The researcher explained the purpose of the study, inclusion and exclusion criteria, the voluntary basis of participation and the importance of providing informed consent before starting the questionnaire to all the participants. Participants in the West and Central and the nursing superintendent in the East were informed that the participants had full rights to leave the questionnaire at any time if they wish to discontinue and that it won't hamper their professional career.

6. To ensure anonymity the participants were asked not to mention their names on the questionnaires nor did the researcher used any codes to identify the participants.

7. For the participants in the East, they were informed that extra precautions would be taken to ensure their confidentiality and security of their data by providing

individual envelops which would be used to secure their questionnaire upon completion and sealing it with their own signatures.

8. The questionnaires were collected after two weeks from its distribution date.

Data analysis

All the data were entered into Minitab 17. Descriptive statistics including frequency, percentage, mean (M) and standard deviation (SD) was used to describe demographic and other study variables. Binary logistic regression was used to determine the relationship between the variables.

CHAPTER 4
RESULTS

This chapter presents the results of the study including description of demographic characteristics of the sample, prevalence of different kinds of workplace violence, its impact and the factors associated with workplace violence against nurses working in Bhutan.

Description of demographic characteristics of the sample.

A total of 204 sets of questionnaires were distributed in three hospitals: Jigme Dorji Wangchuck National Referral Hospital, Gelephu Central Regional Referral Hospital and Mongar Eastern Regional Referral Hospital. Of which 190 completed and returned the questionnaires making the response rate 93.14%. The demographic characteristics of the participants are presented in Table 1.

Tables 1 Description of demographic characteristics of the sample (n= 190)

Variables	Total		Workplace Violence		Non-Workplace violence	
	Number (190)	**Percentage (%)**	**Number (n =108)**	**Percentage (%)**	**Number (n = 82)**	**Percentage (%)**
Age (Years)	(Range = 22-56 year, Mean =30.974, *SD* = 6.443)					
22-29	99	52.11	59	54.63	43	52.43
30-39	63	33.14	29	26.85	31	37.81
40-49	26	13.70	19	17.59	7	8.54
50-59	2	1.05	1	0.93	1	1.22
Gender						
Female	112	58.94	63	58.33	49	59.75
Male	78	41.06	45	41.67	33	40.25

Tables 1 (Continued)

Variables	Total		Workplace Violence		Non-Workplace violence	
	Number (190)	**Percentage (%)**	**Number (n =108)**	**Percentage (%)**	**Number (n = 82)**	**Percentage (%)**
Marital status						
Single	75	39.47	48	44.44	25	30.48
Married	113	59.47	59	54.63	56	68.29
Divorced/ Widowed	2	1.06	1	0.93	1	1.23
Level of education						
Certificate	21	11.05	7	6.48	14	17.07
Diploma	112	58.95	65	60.18	48	58.54
Bachelors	48	25.26	34	31.48	14	17.07
Masters	9	4.74	2	1.86	6	7.32
Working experience (years)	(Range =1-31 years Mean = 1.72, SD =0.93)					
0-10	153	80.52	64	59.25	39	47.56
11-20	25	13.15	31	28.72	19	23.17
21-30	11	5.81	9	8.33	16	19.51
31-40	1	0.52	4	3.70	8	9.76
Work unit						
Inpatient department	139	73.16	74	68.52	59	71.95
Outpatient department	22	11.58	7	6.48	15	18.30
Emergency department	29	15.26	27	25.00	8	9.75

Table 1 presents the characteristics of 190 participants, majority of them were female (58.94%) and the rest comprised of male participants (41.06%). The average age of the participant was 30.974 (*SD* = 6.443) years and ranged from 22 to 56 years. Majority of the participants were married (59.54%) and had between 0 to 10 years of work experience (80.52%). Majority of the participants were also working in

Inpatient department (73.16%) followed by emergency department (15.26%) and Outpatient department (11.58%).

Prevalence of workplace violence against nurses

Workplace violence, which is dependent variable in this study have four types: physical violence, verbal violence, bullying/mobbing and sexual harassment. We have presented below the prevalence of workplace violence as a whole, the prevalence of four different types of WPV and common perpetrators of WPV.

Tables 2 Distribution of prevalence and types of workplace violence (n=190)

Workplace violence	Number (n = 190)	Percentage (%)
No	82	43.16
Yes	108	56.84
Physical violence	8	4.21
Verbal violence	86	45.26
Bully/ mobbing	11	5.78
Sexual Harassment	3	1.57
Perpetrator (n=108)		
Relatives of Patient	82	75.93
Staff member	14	12.96
Patient	12	11.11

Table revealed that among 190 participants the prevalence of workplace violence was 56.84 % in 12 months prior to data collection. Results also found that verbal abuse was the most common form of workplace violence at 45.26 %, while 5.78 % was bullying/mobbing, 4.21% was physical violence followed by 1.57 % of sexual harassment. The most common perpetrator of workplace violence was relatives of patient at 75.93 %, followed by staff members at 12.96 % and patients at 11.11 %.

Impacts of workplace violence against nurses

This study studied four types of impact of WPV as shown in the table below. Only one question was present studying the impact of WPV in this study.

Tables 3 Impact of workplace violence against nurses (n=108)

	Not at all N (%)	A little bit N (%)	Moderately N (%)	Quite a Bit N (%)	Extremely N (%)
1. Repeated, disturbing memories, thoughts, or images of the attack?	5(4.63)	17 (15.74)	38(35.19%)	32 (29.63)	16 (14.81)
2. Avoiding thinking about or talking about the attack or avoiding having feelings related to it?	10(9.26)	39 (36.11)	37 (34.26)	16 (14.81)	6 (5.56)
3. Being “super alert” or watchful and on guard?	10(9.27)	26 (24.07)	35 (32.41)	21 (19.44)	16 (14.81)
4. Feeling like everything you did was an effort?	7 (6.49)	24 (22.22)	36 (33.33)	19 (17.59)	22 (20.37)

The above table shows various impacts of WPV experienced by the nurses. The result reveals that 35.19% of the nurses had moderate levels of repeated, disturbing memories, thoughts, or images of the attack. Also 34.26% of the participants also reported of being “super alert” or watchful and on guard at moderate level and 32.41% of the participants reported “feeling like everything they did was an

effort" at a moderate level. There are 5.56% of the participants avoided thinking about the attack or avoiding having feelings related to it at extreme levels.

Description of the study variables

This part contains the description of all the study variables in this study which consists of nursing professionals' competency, work environment, personality trait, professional autonomy, and the workload perception of the nurses.

Tables 4 Description of the study variables (n=108)

Variables	Possible range	Actual range	Mean	*S.D.*
Nursing competency	35-245	159-245	210.46	22.83
Work environment	0-93	34 – 92	57.55	12.56
Professional autonomy	6-30	7-30	18.97	4.86
Workload perception	5-25	19 - 23	20.16	0.69

As shown in table 4, the mean score of sum of nurse professional competence scale was 210.46 $\pm$ 22.83 indicating relatively high levels of competency report by the participants. The mean of the total scores for the work environment was 57.55 (*SD* = 12.56) which corresponds to the response favorable practice work environment by the participants. The mean total scores for the autonomy and control scale was 18.97 (*SD* = 4.86) indicating having quite moderate levels of autonomy and control over their work by the participants. As for the workload perception of the nurses, the results revealed that nursing staffs had relatively high levels of workload perception in general and in all the items with mean total scores of 20.16 $\pm$ 0.69.

For the personality trait, higher scores represented more tendency of the corresponding trait and majority of the participants fell under the extraversion personality (n= 99) followed by neuroticism personality (n= 91).

Factors influencing workplace violence against nurses

Assumptions of binary logistic regression test were tested before its analysis. Dependent variables are binary in nature for this study: Yes and No. The observations/ independent variables are independent of each other. Multicollinearity among the independent variables was tested using variance inflation factor (VIF). The calculated VIF was between 2.5 to 3.56 for this study showing no high multicollinearity among the independent variables. There is a linearity of independent variables and log odds.

Table 5 presents the result obtained from binary logistic regression. The odds ratio with a 95% confidence interval was selected as a measure of association. Additionally, the Hosmer-Lemeshow test was used to verify goodness-of-fit in which the higher the p-value, the better the adjustment. An alpha of < .05 was considered statistically significant. From the result we can see that absolute number of the outcomes were small, it violated the prerequisite of the analysis for logistic regression analysis.

Tables 5 Factors predicting workplace violence against nurses (n=190)

Predicting factors	**Coef**	**SE Coef**	**Z**	**p-value**	**Odd Ratio (OR)**	**95% Confidence Interval**	
						Lower	**Upper**
Age	0.171	0.551	0.310	> .05	1.186	0.402	3.492
Gender	0.218	0.360	0.605	> .05	1.243	0.421	2.086
Education	0.505	0.649	0.778	> .05	1.657	0.464	5.914
Marital Status	-0.064	0.408	0.156	> .05	0.938	0.421	2.086
Work Unit	1.101	0.503	2.188	< .05	4.625	1.122	8.053
Nursing competency	-0.008	0.007	1.142	> .05	0.991	0.976	1.006
Personality trait	-0.047	0.323	0.145	> .05	0.954	0.507	1.795
Work environment	0.001	0.013	0.076	> .05	1.0012	0.975	1.027

Tables 5 (Continued)

Predicting factors	Coef	SE Coef	Z	p-value	Odd Ratio (OR)	95% Confidence Interval	
						Lower	Upper
Professional autonomy	-0.027	0.035	0.771	> .05	0.973	0.908	1.043
Workload perception	0.563	0.249	2.261	< .05	1.756	1.077	2.862

$R = .0996$, $R^2 = .0996$, Adjusted $R^2 = .0274$, $P < .05$, Constant = -9.56,

The odds ratios of work unit and workload perception shows statistically significant ability to predict workplace violence ($p < .05$). The result shows that participants working in the inpatient department are 4.625 times more likely to experience workplace violence than are participants from outpatient and emergency department (OR = 4.625, 95% CI 1.122, 8.053). Also, participants who perceive higher workload are 1.756 times more likely to experience workplace violence than are participants who perceive lower workload (OR = 1.756, 95% CI 1.077, 2.862).

Other variables resulted in small absolute number of outcomes and were insignificant. The result showed that participants in the age range 20-29 years were 1.186 times more likely to have workplace violence than were other age range [OR = 1.186 (95% CI 0.40, 3.49)]. Female participants were 1.243 times more likely to have workplace violence than were male participants [OR = 1.24 (95%Cl: 0.56, 1.78)]. Married nurses were also more likely to experience WPV (OR = 0.938 (95%Cl: 0.421, 2.086) compared to single or divorced nurses.

The result also found that nursing competency was at 0.991 times (95% Cl: 0.976, 1.006) more likely to experience WPV if they perceive lower competency. Participants with Neuroticism personality were also 0.954 times (95% Cl: 0.507, 1.795) more likely to be victims of WPV compared to Extraversion personality nurses. Taking into consideration the work environment, nurses who considered their working environment to be unfavorable were at increased risk of experiencing WPV [OR= 1.0012 (95%Cl: 0.975, 1.027)] compared to nurses who considered their work

environment to be favorable. Nurses who perceived lower professional autonomy were 0.973 times (95% Cl: 0.908, 1.043) more like to experience WPV than nurses who considered higher professional autonomy.

CHAPTER 5
CONCLUSION AND DISCUSSION

This chapter presents summary of the study and findings in relation to those previously reported in the literature. Subsequently, the implications for nursing, recommendations for future research, limitations and conclusion are presented.

Summary of the findings

This cross-sectional quantitative study was designed to investigate on the prevalence of workplace violence, its impact on the nurses and determine different factors (age, gender, level of education, nursing competency, personality trait, Work environment, work unit, professional autonomy and workload perception) influencing workplace violence against nurses working in Bhutan.

The target population of this study was 1202 nursing staffs working in different healthcare centres in Bhutan (Annual Health Bulletin, 2019) which included Jigme Dorji Wangchuck National Referral Hospital, Gelephu Central Regional Referral Hospital and Mongar Eastern Regional Referral Hospital. G*power 3.1 software (Faul, Erdfelder, Buchner, & Lang, 2009) was used with a conventional power estimates of 0.8, with alpha level set at 0.05, and effect size of 1.49, it was estimated that for a logistic regression analysis the total sample required was 168 nurses. We took into consideration the refusal rates from previous studies conducted with nurses in Bhutan (Norbu, 2010: Pemo, 2004), it was estimated at 21%.

Therefore, the total sample for this study was 204 nursing staffs. Out of 204 questionnaires distributed among the nurses, 190 (93%) usable questionnaires were returned. Data were collected using six self-reported questionnaires that had obtained reliability using Cronbachs alpha coefficients. Reliability of Nursing Competency Scale, Practice work Environment-Nursing Work Index, Autonomy and Control Scale and Workload Perception questionnaire were .99, .97, .81 and .87 respectively. Kuder and Richardson 20 was used to obtain reliability for Eysenck Personality Questionnaire and was calculated at .80. Data were analysed using descriptive

statistics, Chi-square and binary logistic regression to determine relationship between the variables. The results of this study are as presented below.

Study findings

Among 190 participants in this study, majority of them (58.94%) were female and the rest (41.06%) comprised of male participants. The average age of the participant was 30.974 years (*SD* = 6.443) and ranged from 22 to 56 years. Most of the participants were educated at diploma level (58.95%), followed by bachelor's degree (25.26%), certificate level (11.05%) and masters level education (4.74%). Most of the participants were married (59.47%) and had less than 10 years of work experience (80.52%). Majority of the study participants are currently working in inpatient department (73.16%), followed by emergency department (15.26%), and outpatient department (11.58%).

The result also concluded that married (54.63%), female nurses (58.33%) between the age group of 20-29 years (54.63%) holding diploma level education (60.18%) with less than 10 years of working experience (59.25%) and working in inpatient department (68.51%) reported the highest WPV compared to their other counter parts.

Out of 190 participants who participated in this study, 45.26% reported being verbally abused at their workplace, followed by bullying/mobbing reported at 5.78%, physical violence at 4.21% followed by 1.57% of sexual harassment. Prevalence of workplace violence for this study was found to be at 56.84% in 12 months prior to data collection. The main perpetrators of workplace violence against nurses in this study were the relatives of the patient at 75.93%, followed by staff members at 12.96% and patients at 11.11%.

The most common impact of workplace violence on nurses were: trying to avoid thinking about or talking about abuse or avoiding having feelings related to it, being "super-alert" or watchful and on guard and having feeling like everything they did was an effort. However, no nurses who reported violence took any day offs after encountering workplace violence of any type.

Other variables resulted in small absolute number of outcomes and were insignificant. The result showed that participants in the age range 20-29 years were

1.186 times more likely to have workplace violence compared to participants in other age range [OR = 1.186 (95% CI 0.40, 3.49)]. Female participants were 1.243 times more likely to have workplace violence than were male participants [OR = 1.24 (95%Cl: 0.56, 1.78)]. Married nurses were also more likely to experience WPV (OR = 0.938 (95%Cl: 0.421, 2.086) compared to single or divorced nurses in this study.

The result also found that nurses were at 0.991 times (95% Cl: 0.976, 1.006) more likely to experience WPV if they perceive lower competency. Participants with Neuroticism personality were also 0.954 times (95% Cl: 0.507, 1.795) more likely to be victims of WPV compared to Extraversion personality nurses. Taking into consideration the work environment, nurses who considered their working environment to be unfavorable were at increased risk of experiencing WPV [OR= 1.0012 (95%Cl: 0.975, 1.027)] compared to nurses who considered their work environment to be favorable. Nurses who perceived lower professional autonomy were 0.973 times (95% Cl: 0.908, 1.043) more like to experience WPV than nurses who considered higher professional autonomy.

Discussions

The findings of this study are discussed in relation to research questions. The findings related to research question one are discussed first, followed by the findings related to questions two and three accordingly.

Research question 1: What is the prevalence of workplace violence against nurses working in Bhutan?

Four types of workplace violence were studied in this study: physical violence, verbal violence, bullying/mobbing and sexual harassment against nurses. The results revealed that 108 among 190 participants were exposed to workplace violence (56.84%) in 12 months prior to data collection. Our finding is much lower compared to other studies conducted in Bangladesh, South Africa a znd China (Madzhadzhi, Akinsola, Mabunda, & Oni, 2017; Stewart, 2018; Zhao et al., 2018) which found that workplace violence reported by nurses at their workplace to be around 64.2% - 80% in 12 months prior to data collection.

A systematic review and meta-analysis study reported a global prevalence of workplace violence at 61.9% (95% Cl 56.1-67.6) among the health care workers. This

study also reported that Australasia had the highest prevalence (70.91%) and Europe had the lowest prevalence of workplace violence (48.1%). Taking into consideration Asian countries and their status with WPV, it was observed that there was a considerable decrease of WPV exposure over the last two decades from 77.3% in 1990-1990 to 64.0% in 2010 -2018 (Liu et al., 2019).

Results from the previous study also found that verbal abuse was the most common form of workplace violence in Bhutan reported at 45.26%, followed by bullying/mobbing at 5.78%, physical violence at 4.21% and lastly sexual harassment at 1.57%. Most of the literature also report the similar kind of findings, verbal violence is one of the highest forms of workplace violence in almost three fourth of the literature reviews conducted in this study. A cross sectional study conducted in Brazil (Tsukamoto et al., 2019) reported verbal violence as the highest forms (59.1%) of violence at workplace among nurses working in the hospital.

Another study conducted in Jordan (Al-Omari, Khait, Al-Modallal, AlAwabdeh, & Hamaideh, 2019), China (Lu et al., 2019), reported verbal violence as high as 71.9% and 79.3% respectively. A cross sectional study (Tsukamoto et al., 2019) conducted in Brazil concluded on this finding with the statement stating that the predominance of verbal abuse influences the symbolic retribution of recognition of professional competence by co-workers, chiefs and supervisors, thus verbal violence was associated with the professional recognition in their setting.

However, reasons for high verbal violence report in this study might have been due to nurses' prolonged direct contact with patients, their relatives and colleagues. Nurses are usually the first person in contact with patients and their relatives during stressful situations, patients under influence of alcohol and drugs or patients having mental outbreak. This kind of situations makes nurses easy victims of verbal violence, which is initial phase of subsequent physical violence, bullying/ mobbing and sexual harassments. Another reasons could be during shifts work especially during night shifts nurses work for more than 12 hours with no visible security personnel thus increasing their risk to different types of WPV altogether. These are just the possible reason for high verbal violence report by the nurse participants for this study.

Physical violence was experienced by 7.89% of the participant in this study which is way lower than what is reported in a cross-sectional correlational study conducted in other countries like Jordan by Al-Omari et al., 2019 where they reported physical violence as high as 27.5% in 12 months prior to data collection. Another study in China (Stewart, 2018) also reported physical violence at their study setting at 25.90%. High prevalence of physical violence in China may contribute to high population density and the phenomena called "health care disturbance" in their country. The reason for physical violence occurrence in Bhutanese health care centres might come from worker related risk factors like understaffed, heavy workload, poor work environment. On the other hand, perpetrator related factors like under the influence of alcohol and drugs or having mental outbreaks explodes into physically abusing the nurses both consciously and unconsciously. Another reason for this finding could be due to almost equal numbers of male and female nurses in Bhutan due to which physical confrontation could have been prevented. Physically abusing a female nurse could be much easier but when there is a presence of male co-worker the perpetrator might back off with just verbally abusing the nurse, thus the finding.

Bullying/ threat and sexual harassment were the least reported workplace violence in our study (5.7% and 1.57% respectively) and is consistent with the findings from a descriptive-comparative study conducted in a hospital affiliated with the Tabriz University of medical sciences (Babaei et al., 2018). The study reported sexual violence as the least type of WPV exposed to nurses at their study setting. However only one cross sectional study with nurses in Thulamela hospital, Vhembe district, South Africa (Madzhadzhi et al., 2017) from our literature review reported bullying at 60%. The one reason for this extremely low reported number for sexual harassment could be due to cultural differences, stigmatization and defamation related to sexual nature of harassment because of which participants don't feel secure and confident enough to report such type of violence or may have reasons which goes deep down to their culture. A study in Iran (Najafi, Fallahi-Khoshknab, Ahmadi, Dalvandi, & Rahgozar, 2017) indicated that participants used the term "Honor insult" rather than sexual harassment in their setting, which only suggests that international definitions of this kind of violence should be adjusted based on a country's cultural background. The above reasons might have also impacted the report of sexual

harassment among Bhutanese nurses in this study as well due to deep cultural values in the country.

The study also found that the most common perpetrator of workplace violence were relatives of patient at 75.93%, followed by staff members at 12.96% and patient themselves at 11.11%. A study conducted in Iran titled" Human dignity and professional reputation under threat: Iranian Nurses experience of workplace violence" (Najafi, Fallahi-Khoshknab, Ahmadi, Dalvandi, & Rahgozar, 2017) found that nurses indicated physical violence came mainly from patients and their relatives, but rarely from their working colleagues. Another study conducted in Brazil (Najafi et al., 2017) also concluded patients and their family members as the main perpetrator of violence (63.3) followed by work colleagues (24.5%).

Question 2. What are the impacts of workplace violence on nurses working in Bhutan?

The most common impact of workplace violence on nurses in this study was "avoiding thinking about or talking about the attack or avoiding having feelings related to it" and "feeling like everything they did was an effort". Literature reviews including many systematic reviews have demonstrated that WPV has both the short term and long term personal, emotional and professional effects (Najafi, Fallahi-Khoshknab, Ahmadi, Dalvandi, & Rahgozar, 2018).

A study conducted in a psychiatric hospital in Jordan found that many nurses who were physically attacked reported that they moderately had frequent memories and thoughts about the incident (45.4%), avoided thinking or talking about it (47.6%), felt super-alert or watchful (57.1%) and perceived everything as an effort (57.1%) (Al-Omari, Khait, Al-Modallal, Al-Awabdeh, & Hamaideh, 2019). Another study found that WPV was positively correlated with nurses developing anxiety and depression (Zhao et al., 2018). The study found that WPV had positive correlation with anxiety ($r = 0.242$, $p < .01$) and depression ($r = 0.115$, $p < .01$).

A cross-sectional study conducted among emergency nurses in Taiwan found that as a result of violence participants considered working in a department other than the emergency departments and almost 92.7% considered leaving the emergency nursing profession. From the study and also the literature review, it is

evident that WPV impact our nurses in many ways depending upon the questionnaire and the objective of the respective study.

Question 3. What are the factors influencing workplace violence in Bhutan?

Nurses' individual factors under consideration in this study were: age, gender, level of education, nursing competency and personality trait. Only nursing competency under nurses' individual characteristic was found to be significantly associated with workplace violence but upon running binary logistic regression nursing competency resulted in very small outcome data, hence could not predict workplace violence. Other factors like age, gender, level of education and personality trait were not statistically significant to WPV exposure this study.

Work unit had significant influence on workplace violence, nurses working in inpatient department in this study was found to be correlated with higher exposure to WPV compared to nurses working in outpatient and emergency departments which is in accordance with Chappell-di Martino's model (Di Martino, 2003). However, a systematic review and meta-analysis study conducted found otherwise, across practice settings the prevalence of non-physical violence was highest in emergency departments (62.3%; 95%Cl 53.7%- 70.8%), whereas physical violence was most prevalent in psychiatric/mental health settings (50.6%; 95% Cl 34.8%-66.4%) (Liu et al., 2019).

Some possible explanation for this study finding could be because of rules and regulations related to patient visitor restriction in inpatient wards set up in every hospital, the one patient one attendant rules and patient to nurse ratios in these hospitals being very high. The average number of patients per nurse ranged from 5 to 23 patients with an average number of 14 patients (Norbu, 2010). These kinds of rules can cause frustrations among attendants and patients, since Bhutan is a close knit community, when a person gets sick, the whole village will be in the hospital to visit the person as a cultural practice. Especially when the condition of the patient is critical hospitals can get really crowded and cause distress among both the nurses working there and people visiting the patient, this can build friction and lead to various types of WPV as mentioned above. Present study findings however might have been influenced by larger number of nurse participants representing inpatient

departments compared to outpatient and emergency departments, therefore a future research is required to explore this phenomenon.

Workload perception significantly influenced workplace violence as perceived by nurses. Increased workload perception was identified as the most distressing parts of the job. The present study revealed that nurses in Bhutan had high levels of workload perception in general and in all the items which is in consistent with earlier study conducted in Bhutan with nurses (Norbu, 2010). The findings of the positive correlation between workload perception and workplace violence in this current study was consistent with the results of previous studies (Alkorashy & Al Moalad, 2016; Park, Cho, & Hong, 2015). The findings from the previous study conducted in Saudi Arabia indicated that understaffing, particularly during meal times and visiting hours, was the most frequently reported factor (53.6%) by the participants (Alkorashy & Moalad, 2016).

Understaffing is usually the only cause for increased workload for the nurses who are currently practicing, understaffing can leave nurses with attending to critical patients and limited time to interact with their patients, which can make patients and their attendants unsatisfied with the care provided. These kind of patients can become potential aggressor toward nurses especially when situation/ condition of patient deterioration under their care.

Age in years in this study did not find significant association with workplace violence which is in consistent with a study conducted in Kuala Lumpur (Zainal, Rasdi, & Saliluddin, 2018) where age was not associated with workplace violence exposure. However, a descriptive exploratory study conducted in Bangladesh with 120 nurses using simple random sampling (Latif, Mallick, & Akter, 2019) found otherwise. The study found that nurses' age was significantly negatively associated with WPV exposure. The exposure of nurses to violence decreased as nurses age increased, these findings maybe contributed to younger nurses ability and skills in dealing with stressful situations which makes them easy victims of WPV. Younger nurses are also unable to interpret emotional ques of others and take necessary actions, thus putting them in a very vulnerable position. A systematic review and meta-analysis study also found that younger nurses had higher risk for any type of WPV in their review (Liu et al., 2019). However, in this study age was not

significantly related to WPV, this might have been due to early maturity at the entry of profession which makes younger nurses not prone to WPV.

Gender was another demographic factor which was found to be significantly associated with WPV in the literature but did not differ in this study. A cross sectional study in China with the aim to investigate on the incidence of workplace violence involving nurses and to identify related risk factors in a high-quality Chinese teaching hospital found that female nurses working in clinical departments were the most vulnerable to non-physical violence (Chen et al., 2018). Similar findings were found in a study (Dehghan-Chaloshtari & Ghodousi, 2017) conducted in Iran, they also found that physical and verbal violence, coercion and menace, desecration were more among the female nurses. The same study also reported nurses' gender was statistically significant in racial violence. However, in this study gender was not associated with WPV, this might have been due to almost equal number of gender in our study sample. While in most countries nursing is considered a feminine career and also female nurses are found to report more WPV compared to male counterpart which is eventually due to large differences in gender distribution in their nursing workforce. Unlike other countries there is almost equal male and female nurses' in Bhutan, thus this might have impacted the result, thus rejecting the hypothesis.

Education qualification did not find any association with workplace violence. As already mentioned in the literature review the relationship between the two is inconsistent however a cross sectional multi institutional study conducted among emergency department nurses in Oman found that nurses with education less than a bachelor's degree were less likely to experience physical violence (Al-Maskari, Al-Busaidi, & Al-Maskari, 2020). Another study have found that nurses with higher levels of education had around 35-53% higher risks compared to nurses who held lower levels of education (C.-Y. Wei, Chiou, Chien, & Huang, 2016). The finding maybe due to better educated nurses being resistant to such incidences at workplace, that they perceive it vital to report such incidents to their supervisors seeking for advice, hence the result.

Personality trait was not significant relationship with WPV. Extraversion and neuroticism were the two types of personality trait studied under this topic. It was

found that 51 (53.68%) of the nurses fell under Extraversion personality and 44 (46.31%) under neuroticism personality. Literature review found that extraversion personality trait were negatively associated with work related anger and irritation, whereas neuroticism personality trait was positively related to irritation and anger. However, personality was not statistically significant to workplace violence in this study which might have been due to almost equal participant in both the personality trait, hence we could not draw conclusion regarding its influence on workplace violence amongst nurses working in Bhutan.

Nursing competency, according to the model of Chappell and Di Martino (2003) it takes into consideration the levels of professionalism of the victim as one of the factors associated with WPV, meaning the more professionalism one displays at their workplace, the less chances one have in experiencing violence. Our previous literature reviews have also shown that nurses with high professional competency like nursing skills and knowledge experience less WPV and vice versa. Although this study finding was not statistically significant in predicting workplace violence [(0.991OR and 95% Cl (0.976, 1.006)], a study assessing the impact of workplace bullying on nursing competency among registered nurses in Jordanian public health hospital found that nurses with more clinical competencies were less likely to experience work-related bullying (Al-Sagarat et al., 2018). A qualitative study (Najafi, Fallahi-Khoshknab, Ahmadi, Dalvandi, & Rahgozar, 2018) also found that perceptions of nurses' lack of competency among patients/relatives, nurses' superiors and physicians may create conditions that were conducive to violence.

Nurses' lack of competency or inadequate preparation for certain tasks could provoke harassment or discriminatory behaviours by colleagues (Walrath, Dang, & Nyberg, 2010). Bully victim's perception of his or her competence is found to be important in examining bullying as it can determine the reaction of the victim to the behavior (Tzafrir et al., 2015). An example for the above statement given in literature: peers or supervisors with less perceived competence may bully those they believe to be competent, as job loss threat increases (Salin, 2003) so when a competent individual does not view themselves as competent they become victims. Evidence have shown that those who see or perceive themselves as weak, powerless or incompetent becomes targets of bullying (Clegg, 1990). However current study failed

to draw conclusion on the influence of nursing competency to workplace violence against nurses.

Work environment was not significant correlation between work environment and workplace violence which is however inconsistent with a systematic review (H. Wei, Sewell, Woody, & Rose, 2018) conducted in US found that healthy work environments were negatively correlated with nurse burnout, dissatisfaction and intention to leave. As earlier chapters have already mentioned the established relationship between nurse burnout and dissatisfaction to reduced quality of nursing care, which in turn leading to dissatisfaction among care receivers. This ends with creating friction between healthcare providers and patients, which usually ends with physical, verbal and bullying from the side of the patient. The perceived shortage in the nursing staff was a primary cause of violence against nurses (Alkorashy & Al Moalad, 2016). The study also explained that the current shortage in the nursing workforce can lead to delays in care and ancillary service which may result in a higher number of violent outbursts from patients and their attendants.

Moreover, the probability of violence is particularly high during visiting hours, when unlimited access to the wards creates overcrowding and increases service demands on nurses from visiting friends and family members (Taher et al., 2010). Hospital wards can get overwhelming during such visiting hours and nurses having to function as good nurses to their patients and control the condition. This can leave nurses exhausted and with no time to complete their nursing activities or prone to more error. Patients on the other side can become unsatisfied with the nurses and provoke WPV against nurses. A study in korea by Mihyun Park and colleagues found that nurses perceiving greater work demands and less trust and justice were more likely to have exposed to violence (Park et al., 2015). However, this study could not come to any conclusion with relation to work environment and its influence on workplace violence against nurses in Bhutan.

Professional autonomy was not significant correlation with workplace violence. This is inconsistent with other study findings reported in the literature (Tsukamoto et al., 2019) where they mention that the predominance of verbal abuse can influences the symbolic retribution of recognition of professional competence by co-workers, chiefs and supervisors. Thus verbal abuse was found to be associated

with lack of professional recognition. The same study also emphasized and explains on the influence of professional autonomy and WPV. Employee recognition is fundamental for development and stability of one's identity and mental health, as well as for health and pleasure at work.

The lack of recognition, manifested by a lack of respect and different forms of WPV, can impact the worker in a negative way: physically, mentally, socially and spiritually which can in long run triggers processes of depersonalization and illness in professionals. Another study conducted in United States found that healthy work environment had a positive relationship with nurses' perceptions of their autonomy, control over practice, nurse-physician relationships and organizational support. These were in turn directly associated with WPV. A systematic review with the aim to provide insights into how workplace violence has an impact on nurses and to inform human resource management about developing comprehensive strategies to manage and mitigate violence, found that workplace violence emerged and were prevalent among profession where organization did not offer them enough autonomy and control over their job (Pariona-Cabrera, Cavanagh, & Bartram, 2020).

Implications for Nursing

The present study is first of its kind in the country and its findings can be used as a foundation or reference to conduct further study on this topic. Workplace violence is a global issue and experienced by health care professionals especially nurses so frequently that it is now considered by most of them as "part of their job". Many researches have explored and found that WPV impact can be devastating to not just the nurses, but the vulnerable patients and their organization at large. Frequent exposure to WPV can deteriorate nurses' physical, mental and spiritual wellbeing, leading to low productivity, increased time off work, poor quality of nursing care, increased medical errors and leaving the profession all together.

Patients receiving care at healthcare centres with high WPV report is found to have lengthier stay at hospital, increased risk of experiencing medication errors, development of pressure ulcers, dissatisfaction with the service and in some case increased mortality. The organization on the other hand is expected to suffer from defamation, increased economic burden from recruitment and training of the new

staffs. Workplace violence have devastating impact on many stakeholders and with no proper reporting protocols related to WPV and lack of attention towards its reduction and prevention may lead to the continued normalization of WPV toward nurses in Bhutan.

This can lead to assumptions and attitudes that there is an exception that nurses will be subjected to WPV. It therefore becomes very important for the nurse administrators and policy makers to pay attention to WPV and realize the urgency of this issue. They need to design and implement ways to encourage first of all, it's reporting, taking immediate action in collaboration with the victim, provide awareness on the importance of reporting such incidents so that individuals will be willing to report it at the first place.

This study has found that more than half of the study participants reported experiencing at least one type of workplace violence in 12 months prior to data collection (n = 108, 56.84%) and verbal abuse was the most common form of violence experienced by nurses (45.26%). The study also found that nurses work unit and workload perception were significant predictors of workplace violence. Nurse administrators and policy makers can use this study finding in developing necessary interventions to minimizing or preventing workplace violence in general and verbal violence in specific.

Several interventions have been developed in order to overcome workplace violence in developed countries due to which its direct application might not be suitable in developing countries like Bhutan. However, it is very important to educate and create awareness among nurses on workplace violence in the first place as nurses can still consider workplace violence as part of their job and not report it. It becomes very important job for the nurse administrators to create fair and transparent reporting system so that nurse victims feel comfortable and safe enough to report such incidents.

Nurse administrators can also use the two factors: nurses' work unit and workload perception to develop specific interventions to overcome workplace violence. Nurse administrators can develop interventions specific to nurses working in inpatient departments by installing security personnel at each unit and mandatory rounds by the security personnel especially during visiting hours and night shifts.

Workload perception of nurses in Bhutan was persistently high (Norbu, 2010), this might have been influenced by the fact that there is no clear job description due to which nurses ends up doing everyone's job and leaving them exhausted at the end of their shifts. Nurse administrators need to develop specific roles and responsibilities for their nurses in order prevent nurses from work overload and the risks associated with it. Other preventive measure might include providing adequate staffing or developing education and training programs to assist nurses to better manage workplace violence.

Future researches should be focused on exploring workplace violence taking into consideration other factors. Future research should also focus on studying effectiveness of the above mentioned preventive measures in combating workplace violence in Bhutanese hospitals.

Strength and limitations

Strengths of this study included the large, geographically diverse sample from all regions of Bhutan. In addition, the high response rate (93.14%) allowed for a more generalizable interpretation of the findings. The support of hospitals and department heads contributed to the success of the study.

This descriptive correlational study was the first study of its kind in Bhutan and also the study was conducted in the referral hospitals (tertiary level) where highest number of nursing workforce in the country are employed. The exploration on the current situation of workplace violence against nurses could provide baseline data for further improvement of nursing profession in this field.

The limitation might relate to the use of self-report surveys, which may not have captured nurses stigmatized by previous violence if they chose not to provide accurate data. Thirdly, participants relied on their memories when answering the questionnaires; therefore, the findings may be biased. Future reasonable measures should be taken which may help prevent any likeness of coercion. Even though health care systems are unique in some way or the other due to so many other factors, the prevalence of workplace violence against nurses threatens nurses around the world.

Conclusion

Since this is first study of its kind in Bhutan, it establishes a great foundation and opportunity to further explore in this field. This study found that workplace violence is high among Bhutanese nurses (56.845%) and verbal abuse is one of the highest reported WPV (45.26%). Although this study could not establish strong significant relationship related to WPV, the results have shown that nurses working unit and their workload perceptions have been found to be associated with WPV. This information can help policy makers, nurse administrators and other concerned stakeholder to kick start their work towards controlling WPV events in their organization, which can have great organizational benefit in the long run like organizational reputation, adequate staffing and quality nursing care.

The prevalence of WPV in Bhutan is high and need immediate action. This study result provides an opportunity for the policy makers, nurse administrators and other stakeholders to develop proactive, strategic and effective measures to mitigate WPV in Bhutanese healthcare setting in a timely fashion. Awareness on WPV and its importance of reporting should be installed so that this phenomenon does not turn into being accepted as “part of their jobs”. There is therefore a big role to be played by the concerned personnel’s.

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APPENDICES

APPENDIX A

Relationship between factors and workplace violence against nurses

Chi-square test was used to find correlation between factors and workplace violence against nurses as presented in table 1.

Table 1 Relationships between factors and workplace violence against nurses (n= 190)

Factors	**Workplace Violence [n(%)]**	**Non-Workplace violence [n(%)]**	χ^2	**P-value**
Age			-0.133	0.068
20-29	59(54.63%)	43(52.43%)		
30-39	29(26.85%)	31(37.80%)		
40-49	19(17.59%)	7(8.54%)		
Gender			0.000	1.000
Female	63(58.33%)	49(59.75%)		
Male	45(41.66%)	33(40.24%)		
Education			0.053	0.466
Certificate	7(6.48%)	14(17.07%)		
Diploma	65(60.18%)	48(58.53%)		
Bachelors	34(31.48%)	17(17.07%)		
Masters	2(1.85%)	6(7.31%)		
Marital Status			-0.118	.104
Single	48(44.44%)	25(30.48%)		
Married	59(54.62%)	56(68.29%)		
Divorced/ Widowed	1(0.92%)	1(1.21%)		
Work Unit			.31	.012
Inpatient department	74(68.51%)	59(71.95%)		
Outpatient department	7(6.48%)	15(18.29%)		
Emergency department	27(25%)	8(9.75%)		
Personality trait			0.000	.663
Extraversion	58(53.70%)	42(51.21%)		
Neuroticism	50(46.29%)	40(48.78%)	-.217	.042

Table 1 (Continued)

Factors	Workplace Violence [n(%)]	Non-Workplace violence [n(%)]	χ^2	P-value
Work environment			-.062	.395
Professional autonomy			-.131	.071
Workload perception			.204	.036

Appendix C

Demographic Questionnaire

Direction: Please mark √ the items or fill in the blanks that are appropriate to you.

1. Age ……. years.
2. Gender
   a) Male ☐
   b) Female ☐
3. Your current marital status
   a) Single ☐
   b) Married ☐
   c) Divorced/ Widowed ☐
4. The highest educational qualification you have obtained
   a) Certificate ☐
   b) Diploma ☐
   c) Bachelors ☐
   d) Masters ☐
5. Number of years of working experience in nursing profession ……. years.
6. Current unit/ ward:
   a) Inpatient department ☐
   b) Outpatient department ☐
   c) Emergency department ☐

Workplace violence in the Health Sector Survey Questionnaire

Direction: Please note that most of the questions provided here have multiple choice answers which may be quickly answered by ticking boxes. When answering "no" to certain questions, you will be asked to move on to the next section in order to save your time. We request you to carefully read through the question and make your answers visible. We guarantee that your responses will be anonymous.

Definition of Workplace Violence: Incident where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, wellbeing or health.

SECTION A: PHYSICAL WORKPLACE VIOLENCE

Definition: The use of physical force against another person or group that results in physical, sexual or psychological harm. It includes beating, kicking, slapping, stabbing, shooting, pushing, biting, pinching, among other.

1. **In the last 12 months**, have you been physically attacked in your workplace?

   ☐ Yes, please answer the following questions.

   ☐ No, (if NO, please go to question no. 15)
2. If yes, please think of the last time that you were physically attacked in your place of work. How would you describe this incident?

   ☐Physical Violence without weapon ☐Physical violence with a weapon
3. Do you consider this to be a typical incident of violence in your workplace?

   ☐ Yes ☐ No
4. Who attacked you?

   ☐ Patient ☐ Relatives of patient ☐ Staff member

   ☐ Management/ Supervisor ☐ External colleague/ worker ☐ General public

   ☐ Others, please specify:
5. Where did the incident take place?

   ☐ Inside health institution or facility ☐ Outside (way to work/ home)
6. How did you respond to the incident? Please tick all relevant boxes

   ☐ took no action ☐ tried to pretend it never happened

   ☐ told the person to stop ☐ tried to defend myself physically

   ☐ told friends/ family ☐ sought counselling

☐ told a colleague ☐ reported it to a senior staff member

☐ transferred to another position ☐ completed incident form

☐ pursued prosecution ☐ completed a compensation claim

☐ others:_____

7. Do you think the incident could have been prevented?

☐ Yes ☐ No

8. Were you injured as a result of the violent incident?

☐ Yes ☐ No ; if NO, please go to question no. 9

8.1 IF YES, did you require formal treatment for the injuries?

☐ Yes ☐ No

9. Listed below are a list of problems and complaints that people sometimes have in response to stressful life experiences like the event that you suffered. For each item, please indicate how bothered you have been by these experiences since you were attacked. Please tick one option per question.

Since you were attacked, how BOTHERED have you been by:	Not at All	A little bit	Moderately	Quite a Bit	Extremely
(a) Repeated, disturbing memories, thoughts, or images of the attack?	☐	☐	☐	☐	☐
(b) Avoiding thinking about or talking about the attack or avoiding having feelings related to it?	☐	☐	☐	☐	☐
(c) Being “super-alert” or watchful and on guard?	☐	☐	☐	☐	☐
(d) Feeling like everything you did was an effort?	☐	☐	☐	☐	☐

10. Did you have to take time off from work after being attacked?

☐ Yes ☐ No; (If NO, Please go to question no.11)

10.1. If YES, for how long? .....days

11. Was any action taken to investigate the causes of the incident?

☐ Yes ☐ No ☐ Don’t know (IF NO or Don’t know, please go to question no.12)

11.1.IF YES, by whom:

☐ Management/ employer ☐ Police

☐ Community group ☐ Others, please specify:

11.2. If YES, What were the consequences for the attacker?

☐ None ☐ Verbal warning issued ☐ Care discontinued

☐ Reported to police ☐ Aggressor prosecuted ☐ Other: _____

☐Don't know

12. Did your employer or supervisor offer to provide you with:

Counselling ☐ Yes ☐ No

Opportunity to speak about/ report it ☐ Yes ☐ No

Other support? ☐ Yes ☐ No

13. How satisfied are you with the manner in which the incident was handled? (Please rate: 1 = very dissatisfied, 5 = very satisfied)

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

14. If you did **NOT** report or tell about the incident to others, why not? Please tick any relevant box

☐ It was not important ☐ Felt ashamed ☐ Felt guilty

☐ Afraid of negative consequences ☐ Useless ☐ Did not know who to report to

☐ Other, please specify:

15. **In the last 12 months,** have you witnessed any incidents of physical violence in your workplace?

☐ Yes ☐ No; (if NO, please go to question no. 16)

15.1. If YES, how often has this occurred in the last 12 months?

☐ Once ☐ 2-4 times ☐ 5-10 times

☐ Several times a month ☐ About once a week ☐ Daily

16. Have you reported any incident of workplace violence **in the last 12 months**? (Witnessed or experienced).

☐ Yes ☐ No (If NO, please go to section B)

16.1.IF YES, have you been disciplined for reporting an incident of workplace violence?

☐ Yes ☐ No

SECTION B: PSYCHOLOGICAL WORKPLACE VIOLENCE: VERBAL ABUSE

Definition: Psychological violence is defined as: intentional use of power, including threat of physical force, against another person or groups, that can result in harm to physical, mental, spiritual, moral or social development. Psychological violence includes verbal abuse, bullying/mobbing, harassment, and threats.

Please Note: Each form of psychological violence will be addressed separately with the same questions. This is important for getting a detailed understanding of the workplace violence you experienced. Please answer at least the first question of each section. In case of "NO", you are directed to the next section.

SECTION B: VERBAL VIOLENCE

1. **In the last 12 months**, have you been verbally abused in your workplace?

   ☐ Yes , please answer the following questions.

   ☐ No, (please go to SECTION C)

2. How often have you been verbally abused **in the last 12 months**?

   ☐ Once ☐ Sometimes ☐ All the time

3. Please think of the last time you were verbally abused in your place of work. Who verbally abused you?

   ☐ Patient ☐ Relatives of patient ☐ Staff member

   ☐ Management/ supervisor ☐ External colleague/ worker ☐ General public

   ☐ Other, please specify:

4. Do you consider this to be a typical incident of verbal abuse in your workplace?

   ☐ Yes ☐ No

5. Where did the verbal abuse take place?

   ☐ Inside health institution or facility ☐ Outside (on way to work/ home)

6. How did you respond to the verbal abuse? Please tick all relevant boxes.

   ☐ took no action ☐ tried to pretend it never happened

   ☐ told the person to stop ☐ sought counselling

☐ told friends/ family ☐ reported it to a senior staff member

☐ told a colleague ☐ completed incident form

☐ transferred to another position ☐ completed a compensation claim

☐ pursued prosecution ☐ others:_____

7. Listed below are the list of problems and complaints that people sometimes have in response to stressful life experiences like the event that you suffered. For each item, please indicate how bothered you have been by these experiences since you were abused. Please tick one option per question.

Since you were abused, how BOTHERED have you been by:	Not at All	A little bit	Moderately	Quite a Bit	Extremely
(a) Repeated, disturbing memories, thoughts, or images of the abuse?	☐	☐	☐	☐	☐
(b) Avoiding thinking about or talking about abuse or avoiding having feelings related to it?	☐	☐	☐	☐	☐
(c) Being "super-alert" or watchful and on guard?	☐	☐	☐	☐	☐
(d) Feeling like everything you did was an effort?	☐	☐	☐	☐	☐

8. Do you think the incident could have been prevented?

☐ Yes ☐ No

9. Was any action taken to investigate the causes of the verbal abuse?

☐ Yes ☐ No ☐ Don't know (If No or Don't know, please go to Question no. 12

9.1.If YES, by whom: (please tick every relevant box)

☐ Management/ employer ☐ Police

☐ Community group ☐ Other, please specify:

9.2.If YES, what were the consequences for the abuser?

☐ None ☐ Verbal warning issued ☐ Care discontinued

☐ Reported to police ☐ Aggressor prosecuted ☐ Others:

☐ Don't know

10. Did your employer or supervisor offer to provide you with:

Counselling	☐ Yes	☐ No
Opportunity to speak about/ report it	☐ Yes	☐ No
Other support?	☐ Yes	☐ No

11. How satisfied are you with the manner in which the incident was handled? (Please rate: 1 = very dissatisfied, 5 = very satisfied)

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐5

12. If you did **NOT** report or tell about the incident to others, why not? Please tick every relevant box

☐ It was not important ☐ Felt ashamed ☐ Felt guilty

☐ Afraid of negative consequences ☐ Useless ☐ Did not know who to report to

☐ Other, please specify:

SECTION C: BULLYING/ MOBBING

Definition: Repeated and over time offensive behavior through vindictive, cruel, or malicious attempts to humiliate or undermine an individual or groups of employees.

1. **In the last 12 months**, have you been bullied/ mobbed in your workplace?

   ☐ Yes, please answer the following questions.

   ☐ No, please go to section D

2. How often have you been bullied/ mobbed in the last 12 months?

   ☐ Once ☐ Sometimes ☐ All the time

3. Please think of **the last time** you were bullied/ mobbed in your place of work. Who bullied/ mobbed you?

☐ Patient ☐ Relatives of patient ☐ Staff member

☐ Management/ supervisor ☐ External colleagues/ workers ☐ General public

☐ Others:

4. Do you consider this to be a typical incident of bullying/ mobbing in your workplace?

   ☐ Yes ☐ No

5. Where did the bullying/ mobbing take place?

   ☐ Inside health institution or facility ☐ Outside (on way to work/ home)

6. How did you respond to the bullying/ mobbing? Please tick all relevant boxes.

☐ took no action ☐ tried to pretend it never happened

☐ told the person to stop ☐ sought counselling

☐ told friends/ family ☐ reported it to a senior staff member

☐ told a colleague ☐ completed incident form

☐ transferred to another position ☐ completed a compensation claim

☐ pursued prosecution ☐ others:_____

7. Listed below are the list of problems and complaints that people sometimes have in response to stressful life experiences like the event you suffered. For each item, please indicate how bothered you have been by these experiences since you were bullied/ mobbed. Please tick one option per question.

Since you were bullied/ mobbed, how BOTHERED have you been by:	Not at All	A little bit	Moderately	Quite a Bit	Extremely
(a) Repeated disturbing memories, thoughts, or images of the event?	☐	☐	☐	☐	☐
(b) Avoiding thinking about or talking about the event or avoiding having feelings related to it?	☐	☐	☐	☐	☐
(c) Being "super-alert" or watchful and on guard?	☐	☐	☐	☐	☐
(d) Feeling like everything you did was an effort?	☐	☐	☐	☐	☐

8. Do you think the incident could have been prevented?

☐ Yes ☐ No

9. Was any action taken to investigate the causes of the bullying/ mobbing?

☐ Yes ☐ No ☐ Don't know

(IF NO or DON'T KNOW, please go to question no. 10)

9.1. If YES, by whom:

☐ Management/ employer ☐ Police

☐ Community group ☐ Other, please specify:

9.2.If YES, what were the consequences of the person who bullied/ mobbed you?

☐ None ☐ Verbal warning issued ☐ Care discontinued

☐ Reported to police ☐ Aggressor prosecuted ☐ Other:

☐ Don't know

10. Did your employer or supervisor offer to provide you with:

Counselling	☐ Yes	☐ No
Opportunity to speak about/ report it	☐ Yes	☐ No
Other support?	☐ Yes	☐ No

11. How satisfied are you with the manner in which the incident was handled?
(Please rate: 1 = very dissatisfied, 5 = very satisfied)

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

12. If you did not report or tell about the incident to others, why not?
Please tick every relevant box

☐ It was not important ☐ Felt ashamed ☐ Felt guilty

☐ Afraid of negative consequences ☐ Useless ☐ Did not know who to report to

☐ Other, please specify:

SECTION D: SEXUAL HARASSMENT

Definition: Any unwanted, unreciprocated and unwelcome behavior of sexual nature that is offensive to the person involved, and causes that person to be threatened, humiliated or embarrassed.

1. In the last 12 months, have you been sexually harassed in your workplace?

☐ Yes, please answer the following questions

☐ No, please go to next section.

2. How often have you been sexually harassed in the last 12 months?

☐ Once ☐ Sometimes ☐ All the time

3. Please think of the last time you were sexually harassed in your place of work. Who sexually harassed you?

☐ Patient ☐ Relatives of patient ☐ Staff member

☐ Management/ supervisor ☐ External colleagues/ workers ☐ General public

☐ Others:

4. Do you consider this to be a typical incident of sexual harassment in your workplace?

☐ Yes ☐ No

5. Where did the sexual harassment take place?

☐ Inside health institution or facility ☐ Outside (on way to work/ home)

6. How did you respond to the sexual harassment? Please tick all relevant boxes.

☐ took no action ☐ tried to pretend it never happened

☐ told the person to stop ☐ sought counselling

☐ told friends/ family ☐ reported it to a senior staff member

☐ told a colleague ☐ completed incident form

☐ transferred to another position ☐ completed a compensation claim

☐ pursued prosecution ☐ others:_____

7. Listed below are the list of problems and complaints that people sometimes have in response to stressful life experiences like the event you suffered. For each item, please indicate how bothered you have been by these experiences since you were sexually harassed. Please tick one option per question.

Since you were harassed, how BOTHERED have you been by:	Not at All	A little bit	Moderately	Quite a Bit	Extremely
(a) Repeated, disturbing memories, thoughts, or images of the event?	☐	☐	☐	☐	☐
(b) Avoiding thinking about or talking about the event or avoiding having feelings related to it?	☐	☐	☐	☐	☐
(c) Being "super-alert" or watchful and on guard?	☐	☐	☐	☐	☐
(d) Feeling like everything you did was an effort?	☐	☐	☐	☐	☐

8. Do you think the incident could have been prevented?

   ☐ Yes ☐ No

9. Was any action taken to investigate the causes of the sexual harassment?

   ☐ Yes ☐ No ☐ Don't know

   (IF NO or DON'T KNOW, please go to question no. 10)

   9.1.If YES, by whom:

   ☐ Management/ employer ☐ Police

   ☐ Community group ☐ Other: _____

   9.2.If YES, what were the consequences of the person who harassed you?

   ☐ None ☐ Verbal warning issued ☐ Care discontinued

   ☐ Reported to police ☐ Aggressor prosecuted ☐ Others:

   ☐ Don't know

10. Did your employer or supervisor offer to provide you with:

Counselling	☐ Yes	☐ No
Opportunity to speak about/ report it	☐ Yes	☐ No
Other support?	☐ Yes	☐ No

11. How satisfied are you with the manner in which the incident was handled?
(Please rate: 1 = very dissatisfied, 5 = very satisfied)

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

12. If you did not report or tell about the incident to others, why not?
Please tick every relevant box

☐ It was not important ☐ Felt ashamed ☐ Felt guilty

☐ Afraid of negative consequences ☐ Useless ☐ Did not know who to report to

☐ Other, please specify:

A SHORT VERSION OF THE NURSE PROFESSIONAL COMPETENCY SCALE

Note: This scale is aimed to measure self-reported competence among nursing staffs. Please read each statement carefully and mark √ for each statement that comes closest to reflecting yourself.

	Items	1	2	3	4	5	6	7
	Nursing care							
1	.....							
2	.....							
3	.....							
4	.....							
5	.....							
	Value-based Nursing Care							
1	.....							
2	.....							
3	.....							
4	.....							
5	.....							
	Medical and technical care							
1	.....							
2	.....							
3	.....							
4	.....							
5	.....							
6	.....							
	Care pedagogies							
1	.....							
2	.....							
3	.....							
4	.....							
5	.....							
	Documentation and administration of nursing care							
1	Make use of relevant data in patient records							
2	.....							

	Items	1	2	3	4	5	6	7
3	.....							
4	.....							
5	.....							
6	.....							
7	.....							
8	Lead and develop health staff teams							
	Development, leadership and organization of nursing care							
1	.....							
2	.....							
3	.....							
4	.....							
5	.....							
6	Supervise and educate staff							

PRACTICE ENVIRONMENT SCALE OF THE NURSING WORK INDEX

Note: This scale is used to measure the hospital nursing practice environment. Please read each statement carefully and mark √ for each statement in the column that comes closest to reflecting your opinion about it.

	Items	Strongly agree	Agree	Disagree	Strongly disagree
	Nurse Participation in Hospital Affairs				
1	.....				
2	.....				
3	.....				
4	.....				
5	.....				
6	.....				
7	.....				
8	.....				
9	.....				
	Nursing Foundations for Quality of Care.				
1	Use of nursing diagnoses				
2	.....				
3	.....				
4	.....				
5	.....				
6	.....				
7	.....				
8	.....				
9	.....				
10	.....				
	Nurse Manager Ability, Leadership, and Support of Nurses				
1	A nurse manager who is a good manager and leader				
2	.....				

	Items	Strongly agree	Agree	Disagree	Strongly disagree
3	.....				
4	.....				
5	Praise and recognition for a job well done.				
	Staffing and Resources Adequacy				
1	Enough staff to get the work done.				
2	.....				
3	.....				
4	Enough time and opportunity to discuss patient care problems with other nurses.				
	Collegial Nurse-Physician Relations				
1	A lot of teamwork between nurses and physicians.				
2	.....				
3	.....				

SHORT-SCALE EYSENCK PERSONALITY QUESTIONNAIRE –REVISED

Note: Please read the questions below and provide your answers by ticking on the option which best describe you.

1	Does your mood often go up and down?	YES	NO
2	.....	YES	NO
3	.....	YES	NO
4	.....	YES	NO
5	.....	YES	NO
6	.....	YES	NO
7	.....	YES	NO
8	.....	YES	NO
9	.....	YES	NO
10	.....	YES	NO
11	.....	YES	NO
12	.....	YES	NO
13	.....	YES	NO
14	.....	YES	NO
15	.....	YES	NO
16	.....	YES	NO
17	.....	YES	NO
18	.....	YES	NO
19	.....	YES	NO
20	.....	YES	NO
21	.....	YES	NO
22	.....	YES	NO
23	.....	YES	NO
24	Have you ever broken or lost something belonging to someone else?	YES	NO

AUTONOMY AND CONTROL SCALE

Note: This scale is used to measure the extent to which individuals nurses can choose how they carry out their work. Please read each statement given carefully and indicate by marking √ in the column that correspond to your experience. [1 = not at all, 2 = just a little, 3 = moderate amount, 4 = quite a lot and 5 = a great deal].

	To what extent do you	**Not at all**	**Just a little**	**Moderate amount**	**Quite a lot**	**A great deal**
1	Determine the methods and procedures you use in your work?					
2	.....					
3	.....					
4	.....					
5	.....					
6	Carry out your work in the way you think best?					

WORKLOAD PERCEPTION QUESTIONNAIRE

Note: This questionnaire is aimed to determine workload in the hospital as perceived by the nurses. There are statements of the situation or events. Please read each statement carefully, and determine the frequency with which you experience it by marking √ in the column that correspond to your perception.

	Statements	**Less than once per month**	**Once or twice per month**	**once or twice per week**	**Once or twice per day**	**Several times per day.**
1	How often does your job require you to work very fast?					
2	.....					
3	.....					
4	.....					
5	How often do you have to do more work than you can do well?					

APPENDIX C

Permission letters to use instruments

WORKPLACE VIOLENCE SURVEY QUESTIONNAIRE

from: **Violaine BOBOT** <bobot@icn.ch>
to: "tsheringcabin@gmail.com" < tsheringcabin@gmail.com>
date: Nov 19, 2019, 4:28 PM
subject: Re: [Contact form]

Dear Tshering,

Thank you for your message and interest, we grant you the authorization to use the questionnaire from ICN part.

Kind regards,

--
Violaine Bobot
Publications and Marketing Officer

International Council of Nurses
3 place Jean Marteau
1201 Geneva Switzerland
Tel: + 41 22 908-0118
Email: bobot@icn.ch
Web: www.icn.ch
@ICNurses

THE NURSE PROFESSIONAL COMPETENCE SCALE

from: **Margret**
Lepp <margret.lepp@gu.se>
to: Tshering Cheki
< tsheringcabin@gmail.com>
date: Dec 3, 2019, 6:38 PM
subject: SV: Application Form

Dear Tshering,

Please find the short version and manual.

Good luck!
Kind regards

มหาวิทยาลัยบูรพา BURAPHA UNIVERSITY

PRACTICE ENVIRONMENT SCALE OF NURSING WORK INDEX

from: **Barol, Andrea L.** <ajb@nursing.upenn.edu>
to: Tshering Cheki <tsheringcabin@gmail.com>, "Lake, Eileen T" < elake@nursing.upenn.edu>
cc: Chintana Wacharasin < chintana@buu.ac.th>
date: Nov 20, 2019, 1:59 AM
subject: RE: Permission use your scale.

Dear Tshering Cheki,

Thank you for your email to Dr. Lake. Enclosed, please find the instrument, scoring instructions, an article containing PES-NWI scores for ANCC Magnet hospitals from 1998 in Table 1, and a Warshawsky & Haven article you may find useful. These materials are sent to everyone who makes the request.

Dr. Lake's permission is not needed as the instrument is in the public domain due to its endorsement by the National Quality Forum in 2004 and re-endorsement in 2009: http://www.qualityforum.org/QPS/QPSTool.aspx?m=1129&e=3. However, if you prefer to have Dr. Lake's permission, this email serves as her permission.

Please direct any reply to Dr. Eileen Lake at elake@nursing.upenn.edu. If you need anything else, feel free to write to us again.

All the best,

Andrea Barol
Research Center Coordinator
Center for Health Outcomes and Policy Research
University of Pennsylvania School of Nursing
418 Curie Boulevard, 378R, Philadelphia, PA 19104
215-898-4727 (Office)

SHORT-SCALE EYSENCK PERSONALITY QUESTIONNAIRE-REVISED

no-reply@copyright.com

to: tsheringcabin@gmail.com

date: Nov 7, 2019, 11:55 PM

subject: Thank you for your order with RightsLink / Elsevier

Dear Miss. Tshering Cheki,

Thank you for placing your order through Copyright Clearance Center's RightsLink® service.

Order Summary

Licensee:	Miss. Tshering Cheki
Order Date:	Nov 7, 2019
Order Number:	4703730957351
Publication:	Personality and Individual Differences
Title:	A revised version of the psychoticism scale
Type of Use:	reuse in a thesis/dissertation
Order Total:	0.00 USD

Sincerely,

Copyright Clearance Center

AUTONOMY AND CONTROL SCALE

from: **Toby Wall** <t.d.wall@sheffield.ac.uk>

to: Tshering Cheki < tsheringcabin@gmail.com>

date: Nov 29, 2019, 7:09 PM

subject: Re: Request for permission to use your scale

You are welcome to use our scale. Good luck in your project.

มหาวิทยาลัยบูรพา BURAPHA UNIVERSITY

WORKLOAD PERCEPTION QUESTIONNAIRE

from: **Spector, Paul** <pspector@usf.edu>
to: Tshering Cheki <tsheringcabin@gmail.com>
date: Nov 12, 2019, 5:31 AM
subject: RE: Permission to use the scale.

Dear Tshering:

You have my permission for noncommercial research/teaching use of any of my scales that are in the Our Assessments section of my website paulspector.com, including the QWI. You can find copies of the scales in the original English and for some scales other languages, as well as details about the scale's development and norms on the website. I allow free use for noncommercial research and teaching purposes in return for sharing of results. This includes student theses and dissertations, as well as other student research projects. Copies of the scale can be reproduced in a thesis or dissertation as long as the copyright notice is included, "Copyright Paul E. Spector, All rights reserved" with the appropriate year. Results can be shared by providing an e-copy of a published or unpublished research report (e.g., a dissertation). You also have permission to translate the scales into another language under the same conditions in addition to sharing a copy of the translation with me. Be sure to include the copyright statement, as well as credit the person who did the translation with the year.

Thank you for your interest in my scales, and good luck with your research.

Best,

Paul Spector, Distinguished Professor
Department of Psychology PCD 4118
University of South Florida Tampa, FL 33620
pspector@usf.edu
Website: http://shell.cas.usf.edu/~pspector/

APPENDIX C

Participants information sheet and Consent form

Participant Information Sheet

IRB approval number: .....

Title: FACTORS INFLUENCING WORKPLACE VIOLENCE AGAINST NURSES IN BHUTAN

Dear Participants

I am Ms. Tshering Cheki a graduate student at the Faculty of Nursing, Burapha University Thailand. My study entitled, “Factors Influencing Workplace Violence against Nurses in Bhutan”. The objective is to investigate on the prevalence, impact and factors influencing workplace violence of 204 nurses currently working in Bhutan.

If you agree to participate in this study, you will be asked to fill a set of questionnaires which consists of Workplace Violence Survey Questionnaire which is used to measure the prevalence and impact of different types of workplace violence, Short Version of the Nurse Professional Competence (NPC) Scale is used to assess the perceived competency of the nursing staffs, Practice Environment Scale-Nursing Work Index to evaluate the nurses’ work environment, Revised Eysenck Personality

Questionnaire Short Scale to assess personality trait of the nurses, Autonomy and Control Scale to measure autonomy of nursing profession and Workload Perception Questionnaire to measure workload perception of the nurses. All the informations collected from you will be kept confidential by the researcher and used only for the purpose of this study. This study is aimed to raise awareness on workplace violence, its deadly impact on nursing staffs and the need to keep our nurses safe while taking care of their patients. This study is undertaken with the sole purpose of benefitting nurses working in Bhutan. There is no identified physical, psychological or social risks associated with this study participation.

Participation is voluntary. You have the right to end your participation in this study at any time without any penalty, and not necessary to provide any reasons to the researcher. You may refuse to answer any specific questions, remain silent, or leave this study at any time. This will not impact your professional career in any ways. Any information received from this study, including your identity, will be kept confidential by providing individual envelops to the participants. Participants will then seal their information in the envelope with their signature to ensure that the information are accessible only to the researcher. A coding number will be assigned to you and your name will not be used. Findings from this study will be presented as a group of participants, no specific information from any individual participant will be disclosed. All data will be destroyed completely after publishing or presenting the findings. You will receive a further and deeper explanation of the nature of the study upon its completion, if you wish.

The research will be conducted by Miss. Tshering Cheki under supervision of my major-advisor, Associate Professor Dr. Chintana Wacharasin .If you have any questions, please contact me at 17663190 or by email at: tsheringcabin@gmail.com , and/or my advisor's e-mail address: chintana@buu.ac.th. Your cooperation is greatly appreciated. You will be given a copy of this consent form to keep. Or you may contact Burapha University Institutional Review Board (BUU-IRB) telephone number 038 102 561-62.

Tshering Cheki

PARTICIPANT'S CONSENT FORM

IRB approval number: .....

Title: Factors Influencing Workplace Violence against Nurses in Bhutan.

Date of data collection .....Month.....Year.....

Before I give signature below, I have already been informed and explained from Ms. Tshering Cheki about purposes, method, procedures, and benefits of this study.

I understood all of that explanation and I agree to be as a participant of this study. I understand that I have the full right to leave the study at any time that I want and that it shall not hamper my professional career. I also understand that all the information that I provide will be kept confidential and used only for the purpose of this study.

I well understood all of that explanation and agree to be as a participant of this study.

Signature.....participant

(.....)

Signature.....witness

(.....)

APPENDIX D

Ethical approval letters and data collection letters

Office of International Strategic Affairs
Faculty of Nursing, Burapha University
169 Longhad Bangsaen Rd., Chon Buri, THAILAND 20131
Tel : +66 38 102 808 Fax: +66 38 393 476

MHESI 8106/ 0254

March 16th, 2020

Jigme Dorji Wangchuck National Referral Hospital
Gongphel Lam, Thimphu,
Bhutan

Subject: Asking permission for data collection to test the reliability of research instruments

Dear Director of Jigme Dorji Wangchuck National Referral Hospital

Ms. Tshering Cheki is a master degree student of Faculty of Nursing, Burapha University, Thailand. Presently, she is in the process of conducting her master thesis entitled "*Factors influencing workplace violence against nurses in Bhutan*" under supervision of Associate Professor Dr. Chintana Wacharasin.

In this regard, I am writing to ask your permission to allow Ms. Tshering Cheki to collect data in order to test the reliability of research instruments from 30 nurses from inpatient, outpatient and emergency department at Jigme Dorji Wangchuck National Referral Hospital, Bhutan during the period of March 18th – 20th , 2020. Participants will be asked to complete questionnaires on their own. Should you need further information of this research project, please contact Ms. Tshering Cheki at chekitshering@yahoo.com.

Your kind cooperation for this matter will be highly appreciated.

Yours sincerely,

Pornchai Jullamate

Pornchai Jullamate, RN, PhD,
Assistant Professor & Dean
Faculty of Nursing, Burapha University
Chon Buri, 20131, THAILAND
E-mail: pornchai@buu.ac.th
Tel: 66 38 102 809
Fax: 66 38 393 476

Office of International Strategic Affairs
Faculty of Nursing, Burapha University
169 Longhad Bangsaen Rd., Chon Buri, THAILAND 20131
Tel : +66 38 102 808 Fax: +66 38 393 476

MHESI 8106/ 0258

March 16th, 2020

Mongar Regional Referral Hospital
Mongar - Trashigang - Trashiyangtse Rd,
Mongar, Bhutan

Subject: Asking permission for data collection

Dear Director of Mongar Regional Referral Hospital

Ms. Tshering Cheki is a master degree student of Faculty of Nursing, Burapha University, Thailand. Presently, she is in the process of conducting her master thesis entitled "*Factors influencing workplace violence against nurses in Bhutan*" under supervision of Associate Professor Dr. Chintana Wacharasin.

In this regard, I am writing to ask your permission to allow Ms. Tshering Cheki to collect data from 38 nurses from inpatient, outpatient and emergency department at Mongar Regional Referral Hospital, Bhutan during the period of March 21st – April 3rd, 2020. Participants will be asked to complete questionnaires on their own.

Should you need further information of this research project, please contact Ms. Tshering Cheki at chekitshering@yahoo.com.

Your kind cooperation for this matter will be highly appreciated.

Yours sincerely,

Pornchai Jullamate

Pornchai Jullamate, RN, PhD,
Assistant Professor & Dean
Faculty of Nursing, Burapha University
Chon Buri, 20131, THAILAND
E-mail: pornchai@buu.ac.th
Tel: 66 38 102 809 Fax: 66 38 393 476

Office of International Strategic Affairs
Faculty of Nursing, Burapha University
169 Longhad Bangsaen Rd., Chon Buri, THAILAND 20131
Tel : +66 38 102 808 Fax: +66 38 393 476

MHESI 8106/ 0259

March 16th, 2020

Gelephu Central Regional Referral Hospital
Gelephu, Sarpang,
Bhutan

Subject: Asking permission for data collection

Dear Director of Gelephu Central Regional Referral Hospital

Ms. Tshering Cheki is a master degree student of Faculty of Nursing, Burapha University, Thailand. Presently, she is in the process of conducting her master thesis entitled "*Factors influencing workplace violence against nurses in Bhutan*" under supervision of Associate Professor Dr. Chintana Wacharasin.

In this regard, I am writing to ask your permission to allow Ms. Tshering Cheki to collect data from 37 nurses from inpatient, outpatient and emergency department at Gelephu Central Regional Referral Hospital, Bhutan during the period of March 21st – April 3rd, 2020. Participants will be asked to complete questionnaires on their own.

Should you need further information of this research project, please contact Ms. Tshering Cheki at chekitshering@yahoo.com.

Your kind cooperation for this matter will be highly appreciated.

Yours sincerely,

Pornchai Jullamate

Pornchai Jullamate, RN, PhD,
Assistant Professor & Dean
Faculty of Nursing, Burapha University
Chon Buri, 20131, THAILAND
E-mail: pornchai@buu.ac.th
Tel: 66 38 102 809 Fax: 66 38 393 476

ROYAL GOVERNMENT OF BHUTAN
MINISTRY OF HEALTH
RESEARCH ETHICS BOARD OF HEALTH
THIMPHU : BHUTAN
P.O. BOX : 726

Ref. No. REBH/Approval/2019/111 Date:21st January,2020

REBH APPROVAL LETTER (valid through 21st January 2021)

PI: Tshering Cheki **Institute:** Burapha University,Thailand	**Study Title** FACTORS INFLUENCING WORKPLACE VIOLENCE AGAINST NURSES IN BHUTAN
Co-Investigator(s): **Proponent of the study: Individual**	
Mode of Review: Initial Review : ✔ *expedited review*	
Date of continuing review: 21st January 2020 Note: Please submit continuing review report along with application form AF/01/015/05 at least seven days before the date of continuing review. If the study is completed then please	
List of document(s) approved: Protocol : Approved Informed Consent Form (ICF) : Approved Tools (Questionnaire/forms/guides/etc) : Approved	

Conditions for Approval:

1. *This approval is granted for the scientific and ethical soundness of the study. The PI shall be responsible to seek all other clearances/approvals required by law/policy including permission from the study sites before conducting the study.*
2. *Report serious adverse events to REBH within 10 working days after the incident and unexpected events should be included in the continuing review report or the final report.*
3. *No biological material shall be used for other research purpose beyond which is specified in this protocol.*
4. *Any new research study with stored biological material from this study will need a new approval from the REBH before study begins.*
5. *Any changes to the proposal or to the attachments (informed consent and research tools such as forms) shall be approved by REBH before implementation.*
6. *Final report of the study shall be submitted to REBH at the end of the study for review and protocol file closure.*

(Dr. Neyzang Wangmo)

Chairperson, REBH

For further information please contact: *REBH Secretary:* at *Tel: +975-2-322602* or email at msgurung@health.gov.bt or tashidema@health.gov.bt

Certificate Number 001/2020

Certificate of Human Research Approval
Burapha University

BUU Ethics Committee for Human Research has considered the following research protocol

Protocol Code : G-HS 004/2563
Protocol Title : Factors Influencing Workplace Violence Against Nurses in Bhutan
Principal Investigator : Ms.Tshering Cheki
Affiliation : Graduate Program of Faculty of Nursing

BUU Ethics Committee for Human Research has considered the following research protocol according to the ethical principles of human research in which the researchers respect human's right and honor, do not violate right and safety, and do no harms to the research participants.

Therefore, the research protocol is approved (See attached)

1. Form of Human Research Protocol Submission	Version 2 : 17 February 2020
2. Research Protocol	Version 2 : 17 February 2020
3. Participant Information Sheet	Version 2 : 17 February 2020
4. Informed Consent Form	Version 2 : 17 February 2020
5. Research Instruments	Version 1 : 24 January 2020
6. Others (if any)	Version - : -

Approval Date : 6 March 2020
Valid Date : 5 March 2021

Sign Witawat Jangiam
(Associate Professor Dr. Witawat Jangiam)
Chairperson
The Burapha University Institutional Review Board
Panel 1 (Clinic / Health Science / Science and Technology)

BIOGRAPHY

NAME	Ms. Tshering Cheki
DATE OF BIRTH	January 19, 1990
PLACE OF BIRTH	Juprey, Bhur, Sarpang.
PRESENT ADDRESS	Jigme Dorji Wangchuck National Referral Hospital, Thimphu, Bhutan
POSITION HELD	Clinical nurse, Jigme Dorji Wangchuck National Referral Hospital, Thimphu
EDUCATION	2010-2014 Bachelor of Nursing. Naresuan University, Phitsanulok, Thailand. 2018-2020 Master of Nursing Science (International program) Burapha Univeristy, Chonburi, Thailand