การทดสอบเชิงประจักษ์ของแบบจำลองเชิงสาเหตุของการกลั่นแกล้งในสถานที่ทำงานในพยาบาลวิชาชีพอาวุโส

AN EMPIRICAL TEST OF A CAUSAL MODEL OF WORKPLACE BULLYING IN SENIOR REGISTERED NURSES

KHEMIKA NAPATTARADECHANON

Burapha University

2020

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เขมิกา ณภัทรเดชานนท์

ดุษฎีนิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต
สาขาวิชาNursing Science (Inter)
คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา
2563

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KHEMIKA NAPATTARADECHANON

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR DOCTOR OF PHILOSOPHY
IN NURSING SCIENCE
FACULTY OF NURSING
BURAPHA UNIVERSITY
2020

The Dissertation of Khemika Napattaradechanon has been approved by the examining committee to be partial fulfillment of the requirements for the Doctor of Philosophy in Nursing Science of Burapha University

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KEYWORDS: WORKPLACE BULLYING, SENIOR, REGISTERED NURSES, THAILAND

KHEMIKA NAPATTARADECHANON : AN EMPIRICAL TEST OF A CAUSAL MODEL OF WORKPLACE BULLYING IN SENIOR REGISTERED NURSES. ADVISORY COMMITTEE: WANNEE DEOISRES, Ph.D., NUJJAREE CHAIMONGKOL, Ph.D. 2020.

Workplace bullying is a significant problem in nursing organizations. Senior registered nurses (RNs) are vulnerable to bullying in the workplace. The objectives of the study were to explore perceptions of workplace bullying among senior RNs and to test the causal relationship between the antecedents of workplace bullying at the organizational level (organization culture and authentic leadership) and at the individual level (nursing competence), and the consequences of workplace bullying (symptom experience and burn-out). A multi-stage random sampling technique was used to recruit a sample of 288 RNs from four regional hospitals under the jurisdiction of the Ministry of Public Health, Thailand. The Thai version of Negative Acts Questionnaire was used to measure workplace bullying and other self-report questionnaires were used to collected data. Descriptive statistic and structural equation modeling (SEM) were used analyzed the data.

The results indicated that 13.54% (39/288) of senior nurses reported that they had experienced workplace bullying. The modification of the hypothesized model fit the data well ($\chi 2 = 159.006$, $df = 137$, $p = .096$ and RMSEA = 0.024). This modified model showed that organizational culture had a negative direct effect on workplace bullying ($\beta = -0.356$, $p < .05$) and nursing competence had a negative direct effect on workplace bullying ($\beta = -0.641$, $p < .05$), but authentic leadership had no effect on workplace bullying. Workplace bullying had a positive direct effect on symptom experience ($\beta = 0.667$, $p < .001$) and on burn-out ($\beta = 0.42$, $p < .001$). Symptom experience has a positive direct effect on burn-out ($\beta = 0.554$, $p < .001$). This study demonstrates the relationship between antecedents of workplace bullying and to consequences. The findings can be used by nurse administrators to develop strategies for preventing workplace bullying by focusing on organizational culture and nursing competence.

ACKNOWLEDGEMENTS

I would like to express my gratefulness to all those who have given me the possibility to complete this dissertation. Firstly I am really grateful and indebted to my major advisor, Associate Professor Dr. Wannee Deoisres, whose advise, help, stimulating, suggestion, guidance and support me in everything to develop and understanding of the study. I am really appreciate everything to my co-advisor, Associate Professor Dr. Nujjaree Chaimongkol, for valuable advice an encouragement. I am grateful to all experts for their suggestions of the research instruments.

I would like to thank the directors of the hospitals and deputy nurses of all the hospitals under the jurisdiction of the Ministry of Public Health, Thailand, for their permission to collect the data from the research settings. Many thanks go to the senior registered nurses participants for their kindness and collaboration.

I am indebted to many of my colleagues in the Faculty of Nursing, Chaiyaphum Rajabhat University who helped me during my PhD studies. I would like to express my deepest appreciation to University of Rajabhat Chaiyaphum who granted me the time support throughout my program of study.

My special thanks and appreciation go to my parents and my family, for their love, support and encouragement for me to pursue this degree. I am thankful to my Ph. D. classmate, for their time caring and supporting. Lastly, I offer my regards and blessing to all of those who supported me in any way during my study at Faculty of Nursing, Burapha University.

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CHAPTER 1
INTRODUCTION

Statements and significance of the problems

Workplace bullying is a widespread problem with destructive impact on working life (Savaşan & Özgür, 2018). It is also a prevalent phenomenon throughout the world and continues to be a global issue (Einarsen, Hoel, Zapf, & Cooper, 2011; Johnson & Rea, 2009; Karabulut; 2016; Simons, 2008; Valentine, Fleischman, & Godkin, 2016). Workplace bullying is defined as unfavorable, systematic, repeated and persistent actions for extended periods of six months or more and directed toward an employee by one or more individuals in the workplace with the aim of offending, humiliating and undermining the employee (Aleassa & Megdadi, 2014; Einarsen et al., 2011; Giorgi et al., 2016; Hutchinson, 2013). A review of workplace bullying literature used several terms to explain the phenomena such as mobbing (Keashly, 2001; Sheehan, 1999), harassment (Pate & Beaumont, 2010; Strandmark, & Hallberg, 2007), lateral or horizontal violence (Griffin 2004; Jacoba 2005) and incivility (Felblinger, 2008; Keashly, 2001; Sheehan, 1999). However, many studies have shown that healthcare occupations are identified as having higher rates of workplace bullying, and one of those healthcare occupations professions is nursing (Laschinger, Wong, & Grau, 2012; Wilson, Kendall, Fuller, Milton, & Possingham, 2011; Yildirim, 2009).

The World Health Organization [WHO] (2013) has identified the worldwide increase in workplace bullying as a serious threat to nurses' health and well-being. The WHO also recognizes the need to eliminate workplace bullying as a high priority (WHO, 2013). According to nurse exposure in various regions around the world, bullying has been found to be the most prevalent in the Middle East where the workplace bullying rate is 39.7 percent (Spector, Zhou, & Che, 2014). According to a study in the United Kingdom [UK], the prevalence of workplace bullying is 43 percent (Carter et al., 2013), while another study in the United States of America [USA], reported the prevalence at 85 percent according to a statewide survey (Phelps & Wilson, 2013). In addition, 15.1-23.0 percent of Korean nurses revealed bullying

(Han, Gu, & Yoo, 2014; Lee, Lee, & Bernstein, 2013). In Hong Kong, the prevalence of nurse bullying has been reported at 39.2 percent (Cheung & Yip, 2017). In Iran 22 percent of nurses have been occasionally bullied during the last year (Esfahani & Shahbazi, 2014). In Thailand, 30.5 percent of new RNs have reported having been bullied during the past six months (Sungwan, Deoisres, & Chaimongkol, 2017). Despite evidence showing that workplace bullying is commonly found among nurses and that this issue poses serious risks (Beech & Leather, 2006), this situation is rarely recognized and little is known.

Workplace bullying in nursing involves several factors. Registered nurses' workplace bullying is multifaceted, consisting of both individual and organizational factors (Einarsen, Hoel, & Cooper, 2003; Hutchinson, Wilkes, Jackson, & Vickers, 2010; Oh, Uhm, & Yoon, 2016). Recently, several international organizations, including the Joint Commission, have called for reporting workplace bullying and identifying the factors potentially contributing to its existence in order to find effective solutions and preventive strategies (Joint Commission, 2008). Research on workplace bullying among Registered nurses has identified many personal (negative affect, work motivation) and organizational factors (organizational volatility) that may facilitate or hinder workplace bullying (Arcangeli et al., 2014; Etienne, 2014). Therefore, the antecedents of workplace bullying need to be explored in this study. Although the antecedents of workplace bullying include many variables, the main categories of antecedents associated with workplace bullying are organizational culture and leadership (Samnani & Singh, 2012; Trépanier, Fernet, Austin, & Boudrias, 2016; Yuseon & Kang, 2018). One of the strongest organizational factors related to workplace bullying is nursing organizational culture, which was found to be among the factors sharing the most powerful association with workplace bullying (Yuseon & Kang, 2018; Johnson, 2016; Samnani & Singh, 2012).

Organizational culture is a pattern of basic assumptions considered valid and taught to members to perceive, think and feel in the organization. Strong organizational cultures can support and acknowledge positive behaviors as well as negative behaviors causing barriers to progress (Guillaume & Austin, 2016). Organizational culture could support workplace bullying as negative and inappropriate behavior (Altman, 2010; Alvesson, 2015; Devonish & Devonish, 2017).

The effects of bullying on an organization's culture can be devastating (Zeka, 2018). Workplace bullying promotes a negative culture and a dissatisfaction of employees' needs potentially leading to burn-out (Trépanier et al., 2016). In some cultures, bullying and aggression are an effective way of achieving goals (Kelloway, Nielsen & Dimoff, 2017). Organizational culture may support aggressive behaviors as a practical method of motivating employees; incivility and rude behavior may emerge if disrespectful behaviors from those harming others persist (Valentine et al., 2016).

The relationship between organizational culture and hostile workplace behavior is that these behaviors may not be deviant from workplace norms. Rather, they may be consistent with those norms (Salin, 2003). Among the abovementioned factors, a significant place is occupied by organizational culture, which may be related to bullying (Johnson, 2016; Pilch & Turska, 2015; Samnani & Singh, 2012). Organizational culture may also allow certain forms of bullying (Salin, 2003). Nurses' experience with workplace bullying depends on the work environment and organizational culture as a strict hierarchical, authoritative organizational atmosphere that justifies workplace bullying (Hutchinson, Jackson, Wilkes, & Vickers, 2008). Workplace bullying can disrupt productivity and potentially damage the organization's culture (Arora, Arora, & Sivakumar, 2016).

Workplace bullying is a direct result of management from leadership in the organization and is an area requiring awareness (Clay, 2014). Leadership positions can influence organizational culture to minimize the effects of workplace bullying. A significant direct association has also been reported between workplace bullying and authentic leadership (Davidson, 2017; Laschinger, Wong, & Grau, 2012; Li & Wang, 2016). Authentic leadership [AL] has a negative direct effect on workplace bullying, which in turn has a direct positive effect on burn-out (Laschinger & Fida, 2014; Laschinger et al., 2012). AL is newer to the list of leadership styles (Avolio & Gardner, 2005). Some nursing leadership research indicates that AL influences a reduction of workplace bullying and other negative factors present in the nursing workplace (Davidson, 2017; Laschinger, Borgogni, Consiglio, & Read, 2015; Yuseon & Kang, 2018). Nurse managers who demonstrate AL qualities may have positive influences on the work environment, including lower rates of workplace bullying (Laschinger et al., 2012; Read & Laschinger, 2015). Reducing workplace bullying

may help prevent nurse turnover, thereby lowering costs. Patient care may also be improved if nurses feel more satisfied and comfortable with the work environment (Laschinger, 2014; Laschinger, Wong & Grau, 2013; Read & Laschinger, 2015; Wong & Giallonardo, 2013). Other than organizational factors, individual factors also affect workplace bullying in nursing.

Nursing competence is a key determinant for the quality of patient care. (Kendall-Gallagher & Blegen, 2009; Liu & Aungsuroch, 2018; Numminen, Leino-Kilpi, Isoaho, & Meretoja, 2015). Competence is one of the individual factors related to workplace bullying (Einarsen et al., 2003). Lack of competency among nurses has been identified as a trigger for disruptive behaviors in the workplace, including bullying (Einarsen et al., 2003, Walrath et al., 2010; Yuseon & Kang, 2018). Moreover, feelings of competence could create a feeling of perceived fulfillment and higher self-esteem among nurses, which may inhibit nurses' experiences with workplace bullying and influence the nurses' perceptions of that experience (Fornés et al., 2011). A study on the prevalence of perceived workplace bullying among Jordanian Registered nurses working in private hospitals and factors affecting nurses' perceptions of workplace bullying revealed that perceived competence is a significant influencing factor in perceived workplace bullying (Obeidat, Qan'ir1, & Turaani, 2018). Therefore, the present study needs to explore the antecedents consisting of perceived nursing competency, authentic leadership and organizational culture. Furthermore, the consequences of workplace bullying in nursing are very important.

The consequences of workplace bullying are significantly related to individuals and organizations (Duffy & Sperry, 2011; Einarsen et al., 2003; Hutchinson et al., 2008; Hutchinson et al, 2010; Oh et al., 2016). Individual consequences of workplace bullying include symptom experience in which workplace bullying has the effect of increasing burn-out (Hutchinson et al., 2010; Laschinger et al., 2012), health and well-being (Aiken et al., 2012; Hickson, 2013; Riskin et al., 2015; Rosenstein & O'Daniel, 2008; Wilson & Phelps, 2013). Workplace bullying has numerous negative effects in terms of individual consequences involving both physical and psychologicalsymptoms of nurses such

as fatigue, headaches, indigestion, sleep disturbances, anxiety, anger, depression and other post-traumatic stress disorder (PTSD) symptoms (Hutchinson et al., 2010; Laschinger & Nosko, 2015; Reknes et al., 2016). Workplace bullying also affects organizational consequences in the form of nurses' turnover (Hutchinson et al., 2010; Laschinger et al., 2012; Samnani & Singh, 2012; Yuseon & Kang, 2018), patient safety (Aiken et al., 2012; Hickson, 2013; Riskin et al., 2015; Rosenstein & O'Daniel, 2008; Williams, 2016; Wilson & Phelps, 2013) and quality of care (Ahliquist & Riehl, 2013).

One significant individual consequence is burn-out (Allen, Holland, & Reynolds, 2015; Giorgi et al., 2016; Laschinger et al., 2012; Laschinger & Fida, 2014; Ole, 2016; Trépanier, Fernet, & Austin, 2013). Burn-out is associated with negative outcomes for nurses in many clinical settings, (Greenglass & Burke, 2001; Laschinger & Fida, 2014), risk for turnover and other consequences at the organization level (Estryn-Behar et al., 2007). Accordingly, the interest of the present study is to explore the consequences of workplace bullying comprising symptom experience and burn-out, because workplace bullying is a serious issue among Registered nurses (Trépanier et al., 2016) that can be experienced by nurses of all ages (Gabrielle, Jackson, & Mannix, 2008; Longo 2013; Namie, Christensen & Phillips, 2014; Purpora, Blegen, & Stotts, 2012; Vessey, DeMarco, Gaffney, & Budin, 2009).

Older or senior nurses refer to staff nurses aged 40 years and up (Longo, 2013). Current nursing involves the development of Smart Nurse 4.0 in which hospitals are developed into digital hospitals. Nurses serve everyone, everywhere, anytime with technology and modern communication. Therefore, nurses must adapt and develop the ability to use technology and computers. Older or senior nurses tend to possess a sense of personal strength, a degree of competence and an air of success with a "been there-done that" attitude. These attributes can also make them a target for bullying (Longo, 2013). The experienced, competent nurse is seen as a threat in the eyes of a bully. Generational differences may also influence relationships among nursing colleagues in which baby boomers (born 1943 to 1960) are generally slow to adjust to technology, generation x-ers (born 1961 to 1981) who became familiar with computers at early age and know how to integrate information from a variety of sources, and millennials (born 1982 and later) who have spent their entire lives around

computers and obtain much of their information via technological devices. Younger nurses can bully older or senior nurses by treating them as though their knowledge or competence is antiquated. Senior nurses can be excluded from social activities in the unit, made fun of due to physician limitations and ignored by the younger nurses. Of course, senior nurses who are baby boomers can bullied by younger nurses in an effort to make them feel less competent (Townsend, 2015).

It is concerning that this high rate of bullying occurs among senior nurses who are very experienced, clinically competent and highly educated. This evidence indicates that bullying is not limited to targets who are new nurses (Johnson & Rea, 2009). Rather than just "eating our young", workplace bullying strikes senior nurses, too. (Townsend, 2015). Senior nurses, in particular, are at greater risk for this phenomenon and are more likely to encounter bullying (Dellasega & Volpe, 2013). Because they are placed in an unfriendly work atmosphere, senior nurses are likely to be involved in improper situations either as offenders or prey. This is a risk for senior nurses, who may have the problem, despite extensive experience in nursing. The senior nurse, therefore, offers an opportunity to explore the phenomenon of workplace bullying (Longo, 2013). However, many studies have suggested that ageist beliefs are prevalent in nursing, perhaps reflecting common societal views (inability to adapt to changing technology, less value than others), which can have the effect of senior nurses being bullied in the workplace (Dychtwald, Erickson & Morison, 2006). One study found staff with longevity to leave positions due to bullying (Vessey et al., 2009). Therefore, the senior nurse offers a unique opportunity to explore the phenomenon of bullying.

Thailand has an aging nursing workforce combined with a shortage of nurses. The average, predominately female Thai nurse is aged 42.3 years and workforce levels of nurses aged over 50 have risen from 20 percent (Sawaengdee, 2017). Limited research has been done on workplace bullying among senior Registered nurses (RNs). However, the literature revealed one study that was conducted to explore new RNs' experiences with workplace bullying (Sungwan, 2018) and a few studies have been conducted to investigate workplace violence specifically in the Emergency Department (Kamchuchat, Chongsuvivatwong, Oncheunjit, Yip & Sangthong, 2008; Rueanyod, 2014; Saimai, Thanjira,

Phasertsukjinda. 2010). One study about the crisis of the nursing shortage in Thailand found the proportion of nurses aged 30-35 years who are still on the job to be only 50 percent of graduates in the same generation. Loss of middle-aged care (age 40-50) accounts for approximately 70 percent of the same generation (Sawaengdee, 2017). Little is known about the workplace bullying experienced by nurses, including the prevalence and risk factors at both individual and organization levels (Kamchuchat et al., 2008; Rueanyod, 2014). Hence, there is a vital need to study workplace bullying in the senior RN population, including the antecedents and consequences associated with workplace bullying that will in turn provide solutions for this serious problem.

Thus, the objectives of this study were to explore perceptions about workplace bullying among senior RNs and test a causal relationship model between senior RNs' perception of the antecedents of workplace bullying at the organization and individual levels. The findings from this study can contribute to developing interventions to reduce workplace bullying among senior RNs and mitigate the shortage of senior nurses in Thailand.

Research objectives

1. To examine the prevalence of workplace bullying among senior RNs in Thailand.
2. To test the causal relationship between the perceptions of senior RNs in Thailand about the antecedents of workplace bullying consisting of nursing competence, authentic leadership, organizational culture and consequences of workplace bullying comprising symptom experience and burn out.

Research hypotheses

1. Authentic leadership has a negative direct effect on workplace bullying.
2. Organizational culture has a negative direct effect on workplace bullying.
3. Nursing competence has a negative direct effect on workplace bullying.
4. Workplace bullying has a positive direct effect on symptom experience and burn out and indirect effect on burn out.
5. Symptom experience has a positive direct effect on burn out.

Conceptual framework of the study

The conceptual framework of the present study was based on the Bullying at Work Model developed by Einarsen et al., (2003). This study explains the antecedents consisting of nursing competency, authentic leadership, organizational culture and the consequences comprising symptom experience and burn-out due to bullying.

The antecedents of the framework propose that workplace bullying is a complex and dynamic process that involves organization and individual antecedents. Workplace bullying, the theoretical and empirical evidence of individual antecedents of bullying from both the perspectives of the perpetrator and the victim targets or recipients of a colleague or subordinate, influence both the victims' targets or recipients and perpetrators' interactions. Furthermore, the aforementioned contribute to the effects to the onset, escalation and consequences of the bullying process (Einarsen et al., 2003).

At the organization antecedent of workplace bullying are key factors that may increase the vulnerability of victims, targets or recipients of bullying behavior and contribute to their responses to such acts. Organizational antecedents of bullying are related to the changing nature of work, work organization, organizational culture and climate and leadership, all of which are related to the quality of leadership behavior as the main causes of workplace bullying (Einarsen et al., 2003).

At the individual antecedent level of workplace bullying, which can be related to both the perpetrator or to the victims, the propensity of bully may enable individuals in areas such as personality, the roles of individual characteristics, actual or perceived lack of competency, examples of personal reasons of victims as deficits in social skills and low performance (Einarsen et al., 2003). A study on the prevalence of perceived workplace bullying among Jordanian Registered nurses found that perceived competence is a significant influencing factor in workplace bullying (Obeidat et al., 2018).

The consequences of workplace bullying have several effects on organization problems such as reduced performance, absenteeism and turnover (Giorgi, 2012; Topa-Cantisano, Depolo, & Morales Dominguez, 2007). Other individual effects include the severe health problems of victims such as anger,

anxiety, sleep disorders, fatigue, concentration disorders, depression and somatic disorders (Einarsen et al., 2011; Zapf & Einarsen, 2005).

The model comprises the following three major phenomena: 1) antecedents of workplace bullying; 2) workplace bullying, and 3) consequences of workplace bullying. According to the concept and literature review, the main phenomena of workplace bullying in this study include the following: 1) antecedents of workplace bullying at the organization level, namely, organizational culture consisting of relation-oriented factors [RO], innovation-oriented factors [IO], hierarchy-oriented factors [HO] and task-oriented factors [TO]; authentic leadership consisting of relational transparency [RT], moral-ethical perspectives [MP], balanced processing [BP] and self-awareness [SA] and individual levels in nursing competency consisting of nursing care (NC), value-based nursing care [VN], medical and technical care [MT], care pedagogics [CP], documentation and administration of nursing care [DA], development, leadership and organization of nursing care [DL]; 2) workplace bullying consisting of work-related factors [WR], person-related factors [PR], and physical intimidation [PI] and 3) consequences of workplace bullying, which could be related to symptom experience consisting of anxiety [A], depression [D], and somatization scales [S] and burn-out consisting of emotional exhaustion [E], depersonalization [D], and personal accomplishment [P]. The conceptual framework is presented in Figure 1 below.

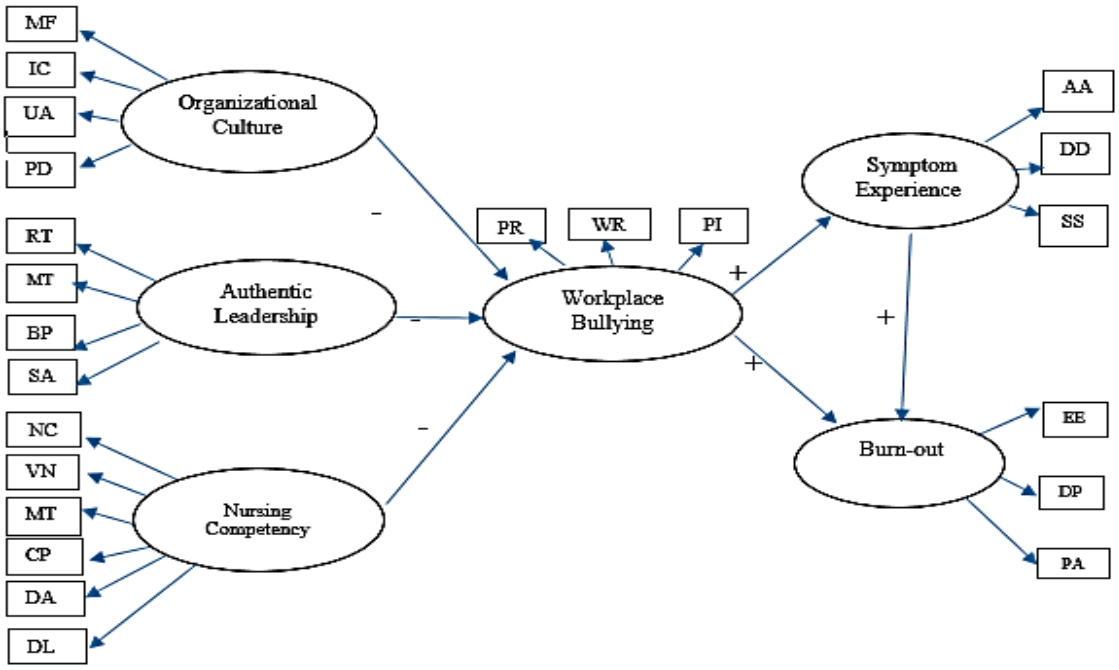


Figure 1-1 Hypothesized model of the antecedents and consequences of workplace bullying among Thai senior RNs.

Scope of the research

This study of senior Thai RNs was based on a model-testing research design conducted with the aims of exploring and testing a model of the antecedents and consequences of workplace bullying. The data was collected from June to October 2019 from RNs aged more than 40 years who had worked as staff nurses with work experience in tertiary care hospitals under the Ministry of Public Health of Thailand.

Definition of terms

Workplace bullying refers to all situations where a senior RN perceives him/herself to be a victim of systematic, negative behavior that is purposefully targeted at the victim over a period of the past six months with the intent of doing harm and where the victim is unable to defend him/ herself. This variable was measured by the negative acts questionnaire revised [NAQ-R] developed by Einarsen (2005) and translated into Thai version by Sungwan (2018).

Authentic leadership refers to the senior nurses' perceptions of a pattern of leadership behavior of head nurses that draws upon and promotes both positive psychological capacities and a positive ethical climate to foster greater self-awareness, an internalized moral perspective, balanced processing of information and relational transparency on the part of leaders working with followers and thereby fostering positive self-development. This variable was measured by authentic leadership questionnaire [ALQ] (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008).

Organizational culture refers to the senior nurses' perceptions, thoughts and feelings in relation to workplace bullying problems as invented, discovered or developed by a given group as the senior nurses learn to cope with the problems of external adaptation and internal integration in order to work well enough to be considered valid. This variable was measured by the organizational culture questionnaire (Hofstede, 1980).

Nursing competence refers to the ability of senior nurses to demonstrate and integrate knowledge, critical thinking, affective states and psychomotor values and skills in performing specific professional care activities both ethically and safely. This variable was measured by the nurse professional competence [NPC] scale (Nilsson et al., 2014).

Symptom experience refers to senior nurses's perceive of the physical and mental distress, that including symptom frequency, intensity, distress and interpretation. This variable was measured by the brief symptom inventory [BSI] (Derogatis & Melisaratos, 1983).

Burn out refers to a severe consequence of prolonged stress at work developed when coping with the demands of work, particularly when the capacity of senior RNs has been unbalanced for a long period of time. Three subscales were used to measure burn-out among nurses: Emotional exhaustion [EE]; Depersonalization [DP]; and Personal accomplishment [PA] (Mashlach & Jackson, 1981). Burn out was also measured by the translated Maslach burn-out inventory-Thai version (Summavart, 1989).

CHAPTER 2
LITERATURE REVIEWS

This study aimed to develop and test the hypothesized model of workplace bullying among older RNs. This chapter describes the major concepts in the model influencing organizational factor in workplace bullying experience, coping with workplace bullying and consequence of workplace bullying among older RNs. This review of the literature embodies the following sections: 1) concept of workplace bullying, 2) workplace bullying among nurse, and 3) models of workplace bullying. The review of the literature provides the reader with studies that support the phenomenon of workplace bullying and the perspective of the older RNs towards bullying in the nursing workplace.

Concept of workplace bullying

Definition of workplace bullying

Many terms have been used to describe workplace bullying**.** For example, workplace bullying is defined as a situation in which, over a period of time, one or more persons are persistently on the receiving end of negative actions from one or several others in a situation where the one at the receiving end has difficulties defending against these actions (Einarsen et al., 2003). Therefore, the concept of bullying at work refers to all situations where one or more persons feel subjected to negative behavior from others in the workplace over a period of time and in a situation where they are unable to defend themselves against these actions for different reasons (Einarsen, 2005). The original definition of physical violence toward another has grown to include more covert behaviors such as backbiting, blaming, degrading and excluding others for the intense purpose of doing harm (Randle, 2003).

Workplace bullying is defined as unfavorable, systematic, repeated and persistent actions over six or more months and directed toward an employee by one or more individuals in the workplace with the aims of offending, humiliating and undermining the employee (Aleassa & Megdadi, 2014; Giorgi et al., 2016; Hutchinson, 2013). Leymann (1996) further specified that for someone to be

classified as a victim of bullying, he/she should be subjected to two or more negative actions on at least a weekly basis over at least six months. Thus, the major distinction between bullying and other types of violence (lateral violence) is the repetitive, persistent nature of bullying (Einarsen, Hoel, & Notelaers, 2009). Workplace bullying could be physical (physical assault/ injury), psychological (insensitive/ rude remarks, verbal abuse), involve social isolation (withholding information, ignoring a person), or any combination of these forms (Etienne, 2014; Hutchinson, 2013; Hutchinson & Jackson, 2015). Einarsen et al., (2003) defined bullying at work as harassing, offending, socially excluding someone or negatively affecting someone's work tasks. In order for the label of bullying (or mobbing) to be applied to a particular activity, interaction or process, the action has to occur repeatedly and regularly (weekly) and over a period of time (approximately six months). Bullying is an escalated process in the course of which the person confronted ends up in an inferior position and becomes the target of systematic negative social acts (Einarsen et al., 2003).

Moreover, the term workplace bullying (WPB) is used to refer to the term horizontal violence (Workplace Bully Institute, 2011). People frequently refer to horizontal violence in the workplace as WPB. Horizontal violence is, "sabotage directed at coworkers at the same level within an organization's hierarchy" and can take place in any environment as long as unequal power relations exist (Dunn, 2003, p 977). One difference between horizontal violence and WPB is that WPB is generally a repetitive act by the perpetrator against the same target [S] in the form of verbal abuse, offensive threatening, intimidating behaviors, and sabotage of the target's work. Horizontal violence encompasses these same characteristics, except that it is not necessarily a repetitive act against the same target (Workplace Bully Institute, 2011). When WPB occurs horizontally, the WPB behaviors originate between equally-ranked practicing Registered nurses and not from chain of command delegation and rank order directives. Therefore, this study explored horizontal workplace bullying.

In conclusion, this study defined workplace bullying as all situations in which older RNs perceive themselves as victims of systematic, negative behavior that is purposefully targeted at the victims over a period of time with the intent to do harm and where the victim is unable to defend him or herself.

Attributes of workplace bullying

Based on concept analysis conducted by Cahú, Leite, Nóbrega, Fernandes, Costa, and Costa (2012), five essential attributes that express the nature of the concept bulling were psychological violence, social exclusion of the worker, humiliation, repetitive and prolonged nature, abusive conduct. Psychological violence is the most strongly presented in the concept of bullying which concerns a deliberate, moral offense, in which the aggressors, in verbal, subtle, dissimulated and intentional manner, carry out discriminative, threats, public cooperation and coactions to achieve the objective of isolating the victim (Pedroso et al., 2006). The anti-ethical behaviors of the harasser occur by means of conducts such as depreciative comments, persistent criticisms, shouting, demands of impossible tasks, excessive monitoring of the victim, malicious rumors and threats in the sense of devaluating and isolating the worker in order to degrade the work environment (Cahú et. al., 2012).

The characteristics that differentiate moral harassment from other normal day-to-day conflicts in work relationships are its intentionality and the repetitive and prolonged nature, conditions most strongly related to the victim**'**s emotional imbalance**.** Therefore, situations of stress, humiliation, conflicts and habitual attributes, tensions and isolated incidents that occur punctually and in a nonsystematic manner among participants of modern work organizations must not be considered workplace bulling (Guimarães & Rimoli, 2006).

Types of workplace bullying

Workplace bullying can be indirect (covert behaviors) or direct (overt behaviors) (Thomas, 2010). In addition to the numerous the types of workplace bullying with many forms based on both empirical and theoretical evidence as follows:

Zapf (1999) categorized five main types of bullying behavior: 1) Work-related bullying, which may include changing the victim's work tasks in some negative way or making them difficult to perform, 2) Social isolation by not communicating with somebody or excluding someone from social events, 3) Personal attacks or attacks on someone's private life by ridicule or insulting remarks or the like, 4) Verbal threats in which somebody is criticized, yelled at or humiliated in public, 5) Spreading rumors.

Next, Zapf, Escartín, Einarsen, Hoel, and Vartia (2011) further studied and concluded that are three types of bullying: downward bullying (bullying of managers against subordinates), upward bullying (bullying of subordinates against managers) and horizontal bullying (bullying of one colleague to one). Most of studies have focused on downward bullying, some of the studies focused on horizontal bullying and recent studies focused on upward bullying.

Lewis, Sheehan, and Davies (2008) reported four categories of bullying. The first category is violence committed by strangers such as criminal or terrorist acts. The second category is consumer or client-related bullying, which involves bullying perpetrated by clients or consumers. Individuals outside of the organization are responsible for this type of bullying. The third category is relational bullying, which includes managerial and peer-to-peer bullying. The fourth category involves organizational bullying, which is the failure to provide resources necessary to complete job-related tasks or organizational goals.

The four main characteristics of workplace bullying are described as follows (Einarsen et al., 2003; Matthiesen & Einarsen, 2010): 1) intensity; 2) repetition; 3) duration; and (4) power disparity. Intensity describes the number of aggressive acts directed toward a specific person. Repetition is defined as a pattern of behavior that occurs daily or weekly. The duration includes behavior occurring over an extended period of time, usually six months or more. Power disparity is an imbalance of power between the perpetrator and the target of the bullying where the target feels incapable of stopping the bullying. These characteristics help define the bullying events. Nevertheless, workplace bullying is more intense and involves more aggressive behaviors. Therefor in this study focus workplace bullying by colleague from nurses and multidisciplinary team.

Workplace bullying among nurses around the world

Workplace bullying in nursing continues to be a global problem (Johnson & Rea, 2009; McKenna, Smith, Poole & Coverdale, 2003; Simons, 2008). Thus, researchers have identified workplace bullying as a phenomenon with global prevalence and an important issue for managers to consider across the world (Einarsen et al., 2011; Lutgen-Sandvik, Tracy, & Alberts, 2007).

Bullying in the nursing workplace, a subset of workplace bullying, has existed in nursing for an extended period of time. Many consider bullying in the nursing workplace to be a) a learned behavior (Lewis, 2006); b) normalized (Hutchinson, Vickers, Jackson, & Wilkes, 2006); c) an accepted behavior among most nurses (Corney, 2008); d) considered part of the job and e) a rite of passage in the educational preparation of new nurses (Hinchberger, 2009). A phrase used by many nurses to describe bullying in the nursing workplace is "nurses eat their young". It is easy to understand when the phrase "eating our young" is used in relation to bullying aimed at nursing students or novice nurses. However, it is important to acknowledge that bullying also targets senior or experienced nurses (Moye, 2010). The prevalence of workplace bullying in nurses is more widespread than among other health professionals (Jahner, 2011), whereby 82.6 percent of nurses have reported experience as victims of workplace bullying (Nwaneri, Onoka, & Onoka, 2016) and 32.4 percent are exposed to WPB behaviors at least twice weekly (Berry, 2015). In the U.S.A., 85 percent of nurses reported in a statewide survey conducted (Nwaneri et al., 2016) in Ohio, Kentucky and Indiana that and average of 21.3 percent of novice nurses experienced daily WPB with 54.7 percent being the highest percentage (Berry Gillespie, Gates, & Schafer, 2012). In Iran, 22 percent of nurses have occasionally been bullied, and 69 percent have never been exposed to these behaviors during the last year (Esfahani & Shahbazi, 2014). Over 70 percent of novice nurses have experienced a sentinel WPB event directed at them 57.9 of the time. The WPB behaviors were primarily perpetrated by nursing colleagues and leadership at 59.4 percent (Berry et al., 2012).

The WHO (2013) has identified the global increase in workplace bullying as a serious threat to nurses' health and well-being. The WHO also recognizes the need to eliminate workplace bullying as a high priority (WHO, 2013). The American Nurses Association Code of Ethics for Nurses also speaks to "improving health care environments and conditions of employment conducive to the provision of quality health care" (Ditmer, 2010). The Joint Commission (2008) acknowledges that unresolved conflicts and disruptive behavior can adversely affect safety and quality of care for patients (Ditmer, 2010). The occupational health and safety administration [OSHA] states that bullying in the workplace is an example of workplace violence.

The OSHA reports that 54 million Americans report being bullied at work. Because of this data, the OSHA recommends providing education for employees to raise awareness that the behavior is not acceptable, instruct employees about what to do if they witness or are subjected to workplace violence and how to protect themselves (OSHA, 2002). Furthermore, the American Association of Colleges and Nursing [AACN] position statement recommends that all faculty members prepare nurses to recognize and prevent all forms of violence in the workplace (Hinchberger, 2009). As shown, professional organizations recognize the need to prepare nurses to manage bullying in the workplace.

In a study of Australian nurses and bullying behaviors by Hutchison and colleagues, the respondents reported three forms of bullying includeing personal attacks (isolation, intimidation and humiliation); erosion of professional competence and reputation (damaging professional identity and limiting career opportunities) and attacks through work roles and tasks (obstruction of work or economic sanctions). One-third of the study participants eventually left their positions because of bullying (Hutchison et al., 2010).

An interview by Randle (2003) on pre-registration nursing program students in the United Kingdom [UK] revealed bullying as a common theme. In other studies such as one in Massachusetts nurses, 31 percent of the respondents reported specific incidences of bullying (Simons, 2008). Members of the Washington State Emergency Nurse Association completed a survey with 27 percent of the respondents reporting they had experienced acts of bullying in the past six months (Johnson, 2009).

Workplace bullying among nurses in Thailand

In Thailand, little is known about the workplace bullying experienced in professional nurses**.** Most of studies are about violence in professional nurses**.** One study that was conducted to explore new RNs**'** experiences with workplace bullying **(**Sungwan, 2018**)** found 30**.**45 percent of new RNs to have self-identified as having been bullied during the past six months**.** This modified model showed that organizational climate has a negative direct effect on workplace bullying and workplace bullying has a positive direct effect on burn-out**.** Burn-out has a direct negative effect on job satisfaction and explains 82 percent of variances in job satisfaction **(**Sungwan, 2018**).** However, the literature review revealed limited

research to have been conducted on workplace bullying among older RNs**.** Therefore, there is a need to study workplace bullying in older RN populations, its antecedents and consequences in order to provide solutions for workplace bullying.

Workplace bullying and senior registered nurses

Bullying can be experienced by nurses of all ages (Longo, 2013). Because experienced nurses tend to possess a sense of personal strength, a degree of competence and an air of success with a "been there-done that" attitude, they can become targets for bullying (Longo, 2013). Experienced nurses in particularly are at higher risks for this phenomenon and more likely to encounter bullying (Dellasega & Volpe, 2013). Although they are placed in unfriendly work atmospheres, senior nurses are likely to be involved in improper situations either as offender or prey. There is a risk for senior nurses, who more experienced, to have problems. Senior nurses, therefore, offer an opportunity to explore the phenomenon of workplace bullying. (Longo, 2013). Older employees often demonstrate competence, initiative, success and high levels of personal strength, and these qualities tend to put them at risk for being bullied as a result of jealousy (Strandmark & Hallberg, 2007).

Although nurses of all ages can be directly or indirectly involved with inappropriate work behaviors, a recent survey of nurses within an age range of 41-50 years reported the highest frequency of exposure and/ or witnessing of horizontal violence (Dumont, Meisinger, Whitacre, & Corbin, 2012). Nurses exposed to bullying may become withdrawn or pull back from participation or involvement in activities, have decreased work productivity and experience burn-out and emotional exhaustion (Berry et al., 2012; Hutchinson et al., 2010). Senior nurses may already be experiencing physical limitations (Friedrich, Prasun, Henderson, & Taft, 2011), so additional physical or psychological challenges can have profound consequences. In a survey, nurses in the 41-50-year and 51-60-year age groups reported more personal effects from horizontal violence than younger groups (Dumont et al., 2012). Senior nurses report distress and humiliation when they witness colleagues behaving badly (Gabrielle et al., 2008), so the effects of bullying can be far-reaching when bullying occurs.

Bullying or ‘multi-generational issues’ with younger nurses can be disempowering (Longo, 2013). Unstable and physically demanding work environments exacerbated by high rates of turnover, changing health environments and high workloads can also negatively affect nurses’ psychological and physical health (Moseley, Jeffers, & Paterson, 2008; Schmidt & Diestel, 2013). Senior nurses may also find it difficult to cope with the pace of technological changes and feel less capable of maintaining professional competence in these circumstances (Andrews et al., 2008).

However, many studies suggest that senior nurses beliefs are prevalent in nursing, perhaps reflecting common societal views (inability to keep up with changing technology, less value than others), which can affect senior nurses being bullied in the workplace (Dychtwald et al., 2006). According to the Namie’s Workplace Bullying Institute report that 65 million American workers are affected by bullying, there are effects on nurses of all ages and levels of experience (Namie et al., 2014). The Workplace Bullying Institute [WBI] U.S. (2011) interpreted that baby boomers seek help by contending that employers characteristically seek to force out the more experienced, higher paid employees. Moreover, a high proportion of nurses aged 50 to 64 years have reported being bullied (WBI, 2011).

Many studies have suggested that ageist beliefs are prevalent in nursing, perhaps reflecting common societal views (inability to keep up with changing technology, less value than others) which can affect older nurses being bullied in the workplace (Dychtwald et al., 2006; Letvak, 2002). Older employees often demonstrate competence, initiative, success and high levels of personal strength, and these qualities tend to put them at risk for being bullied as a result of jealousy (Strandmark & Hallberg, 2007). Therefore, the older nurse offers a unique opportunity to explore the phenomenon of bullying.

Situation of senior registered nurses in Thailand

Today’s nursing shortage in Thailand is a result of not only inadequate production over the past 30 years, but also a failure to retain qualified senior nurses, because the loss of young nurses affects nurses still working as senior nurses. These seniors may not work at full capacity, particularly in physically demanding or shift

work due to full salary problems and inability to move to higher level positions. These factors influencing the workforce levels of nurses aged over 50 have risen from 20 percent and average, predominately female Thai nurses are aged 42.3 years (Sawaengdee, 2017). Healthcare facilities under the permanent secretary office [PSO], Ministry of Public Health, has been facing a high attrition rate of new entrant nurses due to a lack of civil servant posts. The degree of severity of this problem varies across different facilities. The evidence from the demand and supply projection of nurses from 2017 to 2021 and the literature review on the international experience in addressing nursing shortages due to aging workforces in organization for economic cooperation and development [OECD] countries (Sawaengdee, 2009) found that healthcare facilities under the PSO required 136,520 Full-Time-Equivalent (FTE) of nurses by the year 2021(Sawaengdee, 2017). In order to maintain an adequate supply of skilled nurses and strengthen healthcare system in Thailand, there should be approximately 112,170 civil servant posts for nurses (equivalent to 90% of FTE requirement). This is in contrast to the current situation where there are only 71.87 percent of the estimated demands. Moreover, approximately 11.34 percent of the current nurses (approximately 11,000 nurses) are temporary staff members (Sawaengdee, 2017).

At present, RNs move to private hospitals at a rate of 1,000 nurses per year. The Thai Nursing Council estimates that the private sector in Thailand will need 20,000 nurses over the next five years (Thai Nursing Council, 2016). A high nursing turnover is a serious problem in our health care system and there is a dire need to retain nurses. The literature review found that nurse tend to leave their positions over a period of five years both in Thailand and aboard. In Thailand, the issue of nursing commitment and engagement is frequently found in articles on nursing turnover.

Thailand has an ageing nursing workforce combined with a shortage of nurses. The average, predominately female, Thai nurse is aged 42.3 years, and workforce levels of nurses aged over 50 have risen from 20 percent in which the proportion of 30-35-year- old nurses who are still on the job is only 50 percent of graduates of the same generation. Loss of middle-aged care (age 40-50) is approximately 70 percent in the same generation (Sawaengdee, 2017). Furthermore, little is known about the extent to which workplace bullying may have affect nurses'

decisions to leave and the nursing shortage. The data has reported that the workforce is expected to have a shortfall of 43, 988 RNs in Thailand by the year 2019 (Srisuphan & Sawaengdee, 2012). Thus, there is a dire need to study workplace bullying in senior RNs populations. Therefore, the purpose of this study was to examine workplace bullying among senior RNs. Consequences of Workplace Bullying.

Models of workplace bullying

Currently, many models of workplace bullying have been developed and constructed. The current state of the science of workplace bullying may be best summarized as evolving. There are some studies in the international literature on WPB model indicating that antecedents can be individual and organizational, while both organizations and individuals are the consequences for the victims. Researchers of bullying in the workplace have posited several explanatory theories, with the most popular and often referenced being the oppression theory. The premise of the oppression theory is that nurses are an oppressed segment of health care workers. Unable to lash out at oppressors, nurses lash out and bully one another (Freire, 1970).

The theoretical framework of this study of workplace bullying was the model developed by Einersen et al. (2003). The Einersen model is an established and widely used model. The concept of bullying at work is about repeated actions and practices that are directed against one or more workers, are unwanted by the victim, may be carried out deliberately or unconsciously, clearly cause humiliation, offence and distress, and may interfere with job performance and/or cause an unpleasant working environment (Einarsen and Raknes, 1997). Bullying is a process and empirical studies indicate that bullying is not an 'either/ or' phenomenon, but rather a gradually evolving process (Einarsen, 2000; Leymann, 1990; Zapf and Gross, 2001). Hence, the concept of bullying at work is related to persistent exposure to negative and aggressive behaviors of a primarily psychological nature (Einarsen, 1996; Leymann, 1996) and describes situations where hostile behaviors are systematically directed at one or more colleagues or subordinates leading to a stigmatization and victimization of the recipient[S] (Björkqvist, Österman, & Hjelt-Bäck, 1994; Leymann, 1996). This model offers a comprehensive view of the process of workplace bullying. Workplace bullying refers to the same phenomenon, namely the systematic

mistreatment of a subordinate, colleague, or superior, which, if continued, may cause severe social, psychological and psychosomatic problems in the victim. The framework proposes interrelationships among inhibiting and enabling antecedent factors, the perceptions of the victim and the influence of organizational action in the process of workplace bullying. This model explains the antecedents and consequences of bullying. Bullying is characterized by multi-causality involving a range of factors found at many explanatory levels, depending on whether focus is on the behavior of the actor or the perceptions, reactions and responses of the target. The high pace of change, intensifying workloads, increasing work hours and uncertainty with regard to future employment that characterize contemporary working life in many countries influence the level of stress of both perpetrator and victim. In addition, the tolerance of organizations and their management of bullying cases must also to some extent be seen in light of prevailing societal factors. Following the debate on objective and subjective bullying, this model distinguishes between the nature and causes of bullying behavior as exhibited by the alleged offender, and the nature and causes of the perceptions of the target of these behaviors (Einarsen et al., 2003).

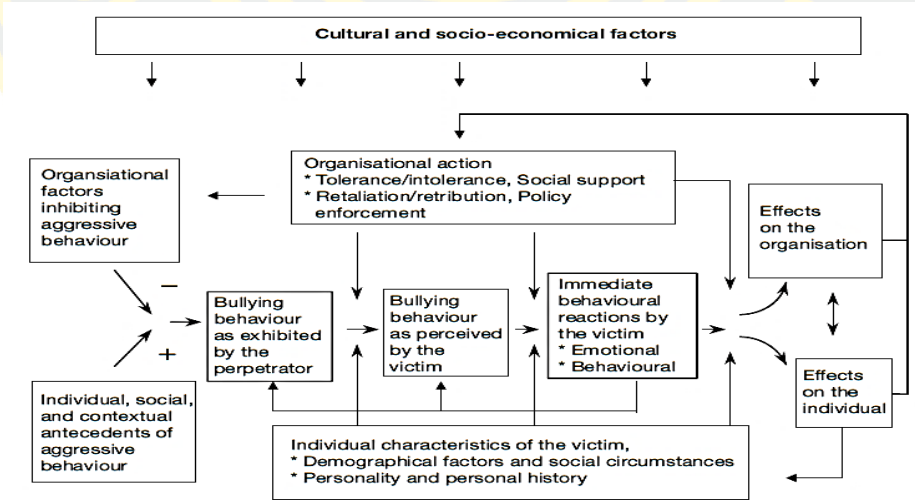


Figure 2-1 A theoretical framework for the study and management of workplace bullying (Einarsen et al., 2003, p. 23).

Concerning the measurement of bullying at work, most studies measure subjective bullying by one of the following two methods: perceived exposure to bullying behaviors, or perceived victimization from bullying at work. Studies measuring exposure to bullying behaviors follow an approach developed by Leymann (1990) in which respondents are presented with an inventory of negative behaviors identified with bullying. Bullying is then operationalized by defining the criteria for when a person is being bullied. The two most frequently used instruments in this tradition are the Leymann Inventory of Psychological Terror (LIPT) (Leymann, 1990) and the Negative Acts Questionnaire (Einarsen & Raknes, 1997; Hoel & Cooper, 2000; Mikkelsen & Einarsen, 2002). The second method is derived from research on bullying among children (Olweus, 1994) presenting respondents with a definition of bullying followed up by questions regarding the frequency and duration of exposure for those who have identified or labelled their experience as bullying according to the definition given. This approach was introduced by Einarsen and Raknes (1991) and later used in several studies (Einarsen & Skogstad, 1996; Hoel & Cooper, 2000; Mikkelsen & Einarsen, 2001; O'Moore, 2000). Hence, Einarsen (1996) argued that the optimal measurement of bullying at work included both methods, as this will bring information on both the nature and intensity of perceived behaviors as well as on the subjective perception of being victimized by these behaviors (Mikkelsen & Einarsen, 2001; Salin, 2001).

Freire's model of oppressed group behavior has served as a basis for other studies on horizontal violence in nursing. Freire created the model based on his research with Brazilians who had been dominated by Europeans. These natives were restricted and exploited by those possessing greater influence, reputation and status, just as nurses in years past were viewed by some physicians as second-rate caregivers unworthy of professional recognition. Originally, Freire (1970) found in his study that influential and dominant Europeans a) identified their norms and values as the proper ones in society and then used their power to impose them; and b) determined which attributes (skin color, language, food, and clothing) were to be respected and rewarded. The oppressed group and the oppressors eventually derived that the oppressed group was inherently inferior. If nursing organizations continue to allow the demeaning acts of WPB among practicing Registered nurses, this destructive,

ritualistic cycle will continue (Freire, 2003). Freire's (2003) framework was chosen as an expression of oppression in nursing. A review and critique of other theorists' frameworks on oppression as they apply to nursing assisted in exploring the relevance of WPB in nursing as related to Freire's framework.

Leymann (1990, 1993, 1996), who has been influential in many European countries, argued strongly against individual factors as antecedents of bullying, especially when related to issues of victim personality. Instead, he advocated a situational outlook where organizational factors relating to leadership, work design and morale of management and workforce are seen as the main factors. This model has the following four factors that are prominent in eliciting bullying behaviors at work: 1) deficiencies in work-design; 2) deficiencies in leadership behavior; 3) the victim's socially exposed position and 4) low departmental morale. Leymann (1996) also acknowledged that poor conflict management might be a source of bullying, but in combination with inadequate organization of work. However, he again strongly advocated that conflict management is an organizational issue and not an individual one (Leymann, 1996).

Hutchinson's model of Bullying in the Nursing Workplace consisted of three constructs that served as an alternate explanation of bullying. The model was the outcome of a mixed methods study of Registered nurses in Australia. This model comprises three concepts including organizational antecedents of bullying, bullying acts and the consequences of bullying. Bullying contributes to distress and avoidance at work, health effects and work and career interruption. The model predicts that bullying is more prevalent in institutions where certain organizational characteristics create a favorable climate. While the model confirms the place of organizational characteristics in workplace bullying, the underlying power dynamics have not previously been canvassed in any detail. However, the Hutchinson et al., (2008) model did not reveal a direct relationship between workplace bullying and turnover intention; turnover intentions were greater as a function of reported physical and psychological symptoms. Because the consequences of WPB are significantly related to individuals and organizations with potential impact, most of the variables are proposed in the model (Einarsen, 2005).

Therefore, a review of previous studies on workplace bullying led this study to construct the model of WPB among older RNs based on the theoretical framework of of workplace bullying by Einersen et al. (2003) and evidence variables such as authentic leadership, organizational culture and perceived nursing competence that are directly related to workplace bullying and its negative consequences, symptom experience and burn-out.

Antecedents of workplace bullying

According to the Einersen model on the antecedents of workplace bullying (WPB), a number of studies have investigated potential causes of this phenomenon. The antecedents of workplace bullying refer to what triggers bullying behaviors. As such, antecedents can be individual. Registered nurses'workplace bullying is multifaceted, consisting of individual and organizational factors (Einarsen et al., 2003; Hutchinson et al., 2010; Oh, Uhm, & Yoon, 2016). The influencing factors of workplace bullying can be categorized based on individual and organizational factors. However, Purpora et al. (2012) emphasized organizational factors rather than individual factors, explaining the mechanism of bullying among nurses as oppression theory. Hutchinson et al. (2010) also presented a multidimensional model of bullying in the nursing workplace and reported that organizational factors were the most critical antecedents of bullying.

Individual antecedents can be related to the victim or perpetrator. The environmental antecedents refer to organizational cultures, stressful work environments, and weak leaders (Matthiesen & Einarsen, 2010). Many organizational and personal characteristics are positively associated with workplace bullying among nurses. However, this study focused on individual variables such as perceived nursing competency and organization variables such as organizational culture and authentic leadership.

Organizational antecedents of workplace bullying

Organizational factors have been identified as potential risk factors including leadership, work organization, job design, organizational culture and social climate. In addition, a number of studies have indicated that organizational factors such as the work atmosphere, communication style, organizational climate and

leadership style are related to workplace bullying (Hoel & Salin, 2003). In this study, organizational factors in workplace bullying focused on organizational culture and authentic leadership.

Organizational culture

Definition of organizational culture

Currently, many models have been developed and constructed on organizational culture**.** The Hofstede concept of organizational culture is an established and widely used model**.** Geert Hofstede is one of the prominent researchers in cultural studies who successfully identified the classification of culture and simplify the concept of cross-culture management**.** His work on culture thus far represents the most influential study in the field of cross-cultural management (Fang, 2010). In the 1980s, Hofstede first published the results of his study of more than 100,000 employees at the multinational IBM in 40 countries (Hofstede, 1989). Hofstede attempted to locate value dimensions across which cultures vary**.** In his concept of cultural dimensions, he described the individualism-collectivism dimension from loosely structured to tightly integrated**.** The masculinity-femininity dimension describes how a culture's dominant values are assertive or nurturing**.** Power distance refers to the distribution of influence within a culture**.** Uncertainty avoidance reflects a culture's tolerance of ambiguity and acceptance of risk.

Hofstede (1980) defined culture as "the collective programming of mind which distinguishes the members of one human group from another in the interactive aggregate of common characteristics that influences a human group's response to its environment". Organizational culture refers to a system of shared assumptions, values, and beliefs that show people what is appropriate and inappropriate behavior (Schein, 1990).

Influence of organizational culture on workplace bullying

One of the strongest organizational factors related to workplace bullying is the nursing organizational culture. Nursing organizational culture was found to be among the factors most powerfully associated with workplace bullying (Yuseon & Kang, 2018). The relationship between organizational culture and hostile workplace behavior is that these behaviors may not be deviant from workplace norms. Rather, they may be consistent with them (Salin, 2003). Among the abovementioned factors, a

significant place is occupied by organizational culture which may be related to bullying (Pilch & Turska, 2015). Organizational culture may allow certain forms of bullying (Salin, 2003). Over the last 20 years, a number of studies have been conducted on the individual and organizational antecedents of bullying (Hoel & Salin, 2003; Salin, 2003; Zapf & Einarsen, 2003). Many surveys refer to specific organizational problems related to bullying, including poor conflict management and work organization (Leymann, 1996), hectic and competitive organizational environments (Salin, 2003) stressful working environments (Hauge, Skogstad, & Einarsen, 2007; Hoel, Glasø, Hetland, Cooper, & Einarsen, 2010) and communication (Vartia, 1996). The main findings have been concerned with the organizational antecedents, which are under management control to a greater extent than other kinds. Nurses experience with workplace bullying depending on their work environment and organizational culture as a strict hierarchical organizational atmosphere and authoritative power that justifies workplace bullying. The role of organizational culture in preventing and responding to bullying may be key to eliminating workplace bullying. As such, educational programs, institutional policies and legislations that help to avoid undesirable (bullying-promoting) organizational cultures would be required (Hutchinson et al., 2008).

The model of workplace bullying in the nursing workplace by Hutchinson et al. (2010) refers to organizational tolerance and reward as well as informal alliances as bullying antecedents directly reflecting an organization's culture or atmosphere. Recent evidence suggests that more pro-social organizational cultures (those that are more relationship- oriented) are less likely to manifest workplace bullying (Tambur & Vadi, 2012). A relationship-oriented organizational culture stresses the flexibility of the organization and focuses on human relationships. Related to the model of influencing factors and consequences of workplace bullying among nurses through structural equation modeling, observation of a significant direct effect indicated the influence of a relationship-oriented organizational culture on workplace bullying. Relationship-oriented organizational cultures had a negative direct effect on workplace bullying ($\beta = -.48$, $p < .001$), thereby explaining 24.0 percent of the variability in workplace bullying (Yuseon & Kang, 2018).

In Asian studies, a multivariate logistic regression analysis revealed that the odds of being a victim of bullying were 2.58 times as high among nurses in a hierarchy-oriented culture as among nurses in a relation-oriented culture [95% confidence interval (1.12, 5.94)]. The results suggest that the types of nursing organizational culture are related to workplace bullying in Korean nurses. Pilch and Turska (2015) noted minimal research exist on how organizational culture relates to bullying development. Organizational culture allows levels of disrespect in the daily atmosphere in the workplace (Hofstede, 2015). Yuseon and Kang (2018) studied the relationships between organizational culture and workplace bullying among Korean nurses and found relationship between organizational culture and workplace bullying can determine the relationships between different organizational culture types and workplace bullying including all significant variables in the univariate analyses as covariates. There was no problem with multicollinearity for the regression model because the variance inflation factors of all independent variables, including organizational culture, were between 1.18 and 3.27 (p = .006). Ma, Wang, and Chien, (2017) studied hospital nurses' attitudes, negative perceptions and negative acts regarding workplace bullying and found relationships between organizational culture and workplace bullying (r = -0.07, p < 0.05).

Authentic leadership

A theory of authentic leadership has been emerging over the last several years from the intersection of the leadership, ethics and positive organizational behavior and scholarship literature (Avolio & Gardner 2005; Cameron, Dutton & Quinn, 2003; Luthans, 2002; Luthans & Avolio, 2003).

Definition of authentic leadership

Luthans and Avolio defined authentic leadership "as a process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, thereby fostering positive self-development" (Luthans & Avolio, 2003). The definition of Walumbwa et al. (2008) goes beyond the notion of being true to oneself and reflects several assumptions composed of authentic leadership. The above study defined authentic

leadership [AL] as "a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate to foster greater self-awareness, an internalized moral perspective, balanced processing of information and relational transparency on the part of leaders working with followers, thereby fostering positive self-development" (Walumbwa et al., 2008, p. 94). Based on the definition, authentic leadership comprises four related dimensions borrowed from Kernis' four components of authenticity, namely self-awareness, internalized moral perspective, relational transparency and balanced processing. These four components have been investigated and empirical evidence supports that a core AL factor comprises the relationships among the four components. (Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010; Walumbwa, Luthans, Avey, & Oke, 2011).

Avolio and Gardner (2005) incorporated components from transformational, charismatic, servant and spiritual leadership theories that demonstrate characteristics compatible with their vision of what AL would encompass. Based on their analysis, authentic leadership theory contains the following key features:

1. Self-awareness - The authentic leader must have self-awareness, as a foundation for all other components of AL. Knowledge of oneself is fundamental to achieving the ability to demonstrate the other three components.
2. Balanced processing - The authentic leader is able to take into account all aspects of a situation and consider all sides, even when they differ from personal beliefs, and make a justified decision.
3. Moral/ Ethical behavior - The authentic leader makes decisions and demonstrates the behaviors expected of a person who lives a highly moral life.
4. Relational transparency - The authentic leader conducts him or herself in a way that leaves no doubt as to their intentions. Followers feel confident that facts are not hidden from them.

Authentic leadership [AL] is newer to the list of leadership styles. The literature has not discussed AL in any significant way until the past fifteen years. Henderson and Hoy (1983) first brought the terminology of leadership authenticity to the forefront with the development of the Leader Authenticity Scale as an attempt to operationalize the concept. It was fifteen more years before any significant additional work occurred with AL (Duignan & Bhindi, 1997). Avolio and Gardner (2005) began

the work of moving AL up to the level of theory development. Some nursing leadership research indicates that AL influences the reduction of WPB and other negative factors present in the nursing workplace. Laschinger, Borgogni, Consiglio and Read (2015) are actively involved in research to measure the effects of AL in nursing.

An authentic leadership refers to a style emphasizing positive relationships between employees and an ethical culture (Walumbwa et al., 2008). AL may have some power to dissuade bullying, reduce burn-out and promote employee empowerment (Laschinger, 2012). Specific correlations may be present between the components of WPB and the characteristics of AL among nursing unit managers. Gaining insight through further research of these issues is important. Nurse managers who demonstrate AL qualities may have positive influences on the work environment, including lower rates of WPB. Lowering WPB may help prevent nurse turnover, thereby lowering costs. Patient care may also be improved if nurses feel more satisfied and comfortable with the work environment (Read & Laschinger, 2015; Laschinger & Fida, 2014; Laschinger, 2012; Laschinger, Wong, & Grau, 2013; Wong & Giallonardo, 2013). Furthermore, there is a negative association between managerial authentic leadership and workplace bullying among nurses (Laschinger, Wong & Grau, 2012; Read & Laschinger, 2013).

Influence of Authentic Leadership on Workplace Bullying

Nurses work in a stress-filled world every day that requires the best teamwork and collaboration possible allowing patients to get the care they deserve. Nurse Managers who lead with authenticity may be better equipped to close this chapter in the nursing profession. (Laschinger & Fida, 2014) AL may have some power to dissuade workplace bullying, reduce burnout and promote employee empowerment. Specific correlations may be present between the components of workplace bullying and characteristics of AL among nurse managers. (Laschinger, 2012).

Laschinger and Fida (2014) found correlations among all the variables considered. According to the findings, AL is significantly and negatively correlated with workplace bullying $r = -.37$ and significantly correlated with both burn-out and turnover dimensions. Davidson (2017) applied Spearman's rank-order correlation

to analyze the relationships between AL and WB, thereby finding a strong negative correlation between AL and WB *rs* (83) = -.717 ($p < 0.01$). An analysis of covariance indicated a significant association with the level of WB experienced by staff RNs, ($p < 0.01$) after adjusting for demographic variables. Exploratory factor analysis determined a one-factor structured based on a scree plot of egin values with all items of the ALI loading from .669-.896. Confirmatory factor analysis utilized the one-factor structure for a final best-fit model ($\chi 2 = 107.3$, $df = 70$, $p = .003$; $TLI = 0.95$, $CFI = 0.96$, $RMSEA = 0.08$). This study gives support to using the ALI in nursing leadership research. Yuseon and Kang (2018) studied Influencing Factors and Consequences of Workplace Bullying among Nurses: A Structural Equation Modeling found authentic leadership, relationship-oriented organizational culture and workplace bullying to explain 27 percent of the variance in PsyCap. Authentic leadership ($b = .15$) and workplace bullying ($b = .33$) had direct effects on PsyCap. Relationship-oriented organizational culture had direct ($b = .19$) and total ($b = .35$) effects on PsyCap and an indirect effect ($b = .16$) on PsyCap through workplace bullying. Read and Laschinger (2013) found Workplace incivility and bullying were significantly related to authentic leadership Authentic leadership ($r = -.35*$) and The effects of authentic leadership, six areas of worklife, and Laschinger et al. (2012) studied occupational coping self-efficacy on new graduate nurses' burnout and mental health: A cross-sectional study found authentic leadership ($b = -.34*$).

Individual antecedents of workplace bullying

Apart from the organization antecedents significant to workplace bullying, the individual antecedents are also important**.** Several studies have been conducted on individual factors about the personality of victims and perpetrators affecting workplace bullying (Discenza, 2018; Jaafar, Jalali, & Dahalan, 2017; Nielsen, Glasø, & Einarsen, 2017; Nielsen & Knardahl, 2015; Savaşan & Özgür, 2018), but competence is one individual factor with important effects on workplace bullying (Einarsen et al., 2003). A review of the international literature revealed few studies on nursing competence effects on workplace bullying. Thus, further study is required to explain the effects of nursing competence.

Nursing competence

Definition of competence

Competence is an antecedent of workplace bullying and a frequently used word that is defined inconsistently in the literature (Fleming & Holmes, 2005). International Council of Nurses [ICN] (1997, p. 44) defines competence as "a level of performance demonstrating the effective application of knowledge, skill and judgment". Fukada (2018) conducted a study entitled "Nursing Competency: Definition, Structure and Development". The definitions of holistic, integrated nursing competency were explored by analyzing graduation achievement goals as related to enhancing the development of nursing competency (Conference for Nursing Education Model), the International Competency Standards Framework for General Nurses (International Council of Nurses) and the Scope and Standards of Nursing Practice (American Nurses Association). Na Kayama et al., defined nursing competency as "the ability to take action by combining knowledge, skills, values, beliefs and experience acquired as a nurse". Liu and Aungsuroch (2018), asserted that nursing competency trends toward definitions using a holistic lens and behavior statements reflecting the skills, knowledge, attitudes and judgment required for effective performance in the nursing profession. Srisathidnarakur (2007) provided the meaning of professional nurse competency, namely the characteristics, knowledge, ability, aptitude and nursing practice skills according to the roles of professional nurses, further asserting that nursing professional competence is the outcome of nursing education. Professional competence embodies three interrelated dimensions: being, knowing and doing. Competence, therefore, is stated as a broad description of nurses' behaviors (cognitive, affective and psychomotor) that are amenable to assessment (Baramee, 2003).

In Thailand, the nursing council stipulated that graduates register and receive professional licenses in accordance with the regulations of the Nursing and midwifery profession act of 1985 amended by the nursing and midwifery professional act (No. 2) 1997 concerning the core competencies necessary for nursing and midwifery professionals. To make the services of nursing professionals, midwives or nursing and midwifery effective, potential for self-development and continuous work development are required. Previously, 14 competencies of professional nurses

were defined until the approval of the Nursing Council Committee at the 4th/ 2009 meeting. On 24 April 2009, the Nursing Council announced the new professional nursing competency with a total of performances as follows: competency 1: ethics, code of conduct and the law; competency 2: core nursing and midwifery practices; competency 3: professional characteristics; competency 4: leadership, management and quality improvement; competency 5: academics and research competencies; competency 6: communication and relationships; competency 7: information technology and competency 8: social competency.

In nursing competence, the effective application of a combination of knowledge, skills and judgment are demonstrated by an individual in daily practice or job performance. In the performance of nursing roles meeting the standards required in employment, competence reflects the knowledge, understanding and judgment, range of cognitive, technical or psychomotor and interpersonal skills; and a range of personal attributes and attitudes (International Council of Nurses, 2008). Nursing competence is 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 (Liu & Aungsuroch, 2018; Nilsson et al., 2014; Nkosi and Uys, 2005). Nursing competence is a key determinant of the quality of patient care. Limited professional nursing competence has been found to negatively influence patient care outcomes leading to increased patient morbidity (increased medication errors, nosocomial infections, pressure ulcers and hospital length of stay) and mortality (Aiken et al., 2017, 2014; Falk, Alm, & Lindström, 2014; Kendall-Gallagher & Blegen, 2009).

Influence of nursing competence on workplace bullying

Lack of competence among nurses has been identified as a trigger for disruptive behaviors in the workplace, including bullying (Walrath et al., 2010). Similarly, several studies have reported that junior nurses with less competent skills are more likely to experience workplace bullying by their seniors than more experienced, competent nurses (Ekici & Beder, 2014; Ovayolu, Ovayolu, & Karadag, 2014; Yildirim, 2009). On the other hand, feelings of competence could create a feeling of perceived fulfillment and higher self-esteem among nurses, which may

inhibit their experience with workplace bullying and/or influence their perceptions of that experience (Fornés et al., 2011).

Obeidat et al. (2018) studied the relationships between perceived competence and perceived workplace bullying among Registered nurses in a cross sectional survey finding relationships between perceived workplace bullying and perceived competence (r = -0.407). This study revealed that perceived competence is a significant influencing factor on perceived workplace bullying and the most significant predictor of bullying in the regression model among all other independent predictors. To our knowledge, this study is the first to provide quantitative support for the impact of perceived competence on perceived workplace bullying among Registered nurses. Lack of competency among nurses was identified as a trigger for disruptive behaviors in the workplace including bullying (Walrath et al., 2010). Similarly, several studies have reported that junior nurses with less competent skills are more likely to experience workplace bullying by their seniors than more experienced, competent nurses (Ekici & Beder, 2014; Ovayolu et al., 2014; Yıldırım, 2009). On the other hand, feelings of competence could create a feeling of perceived fulfillment and higher self-esteem among nurses, which may inhibit their experience with workplace bullying and/ or influence their perceptions of that experience (Fornés et al., 2011).

Trépanier, Fernet, and Austin (2013) studied workplace bullying and psychological health at work concerning the mediating role of satisfied needs for autonomy, competence and relatedness. The results of this study, conducted among 1179 nurses in Quebec, Canada, provide support for the model. Workplace bullying negatively predicted work engagement through employees' unsatisfied needs for autonomy, competence (r = -0.3) and relatedness. Workplace bullying was also found to positively predict burn-out through a lack of satisfaction of employees' need for autonomy. Invariance analysis also confirmed the robustness of the model across gender and job status. Implications for workplace bullying research and managerial practices were discussed.

Measurements of nurse competence

The International Council of Nurses identified 17 indicators within three domains of the framework for general registered nurses' [RNs'] competencies to

advocate for global nursing competency (ICN; Alexander & Runciman, 2003). Liu and Aungsuroch (2018) conducted a current literature review of Registered nurses' competency in the global community and found six instruments were to measure generalist RN competencies across countries. This review explored five developed instruments used to assess general nurses' competency. These were the European questionnaire tool (EQT1 and EQT2; Cowan, Wilson-Barnett, Norman, & Murrells, 2008), competence inventory for Registered nurses (Liu, Kunaviktikul, Senaratana, Tonmukayakul, & Eriksen, 2007; Liu, Yin, Ma, Lo, & Zeng, 2009), Australian national competency standards for Registered nurses (Andrew et al., 2008; Cowin et al., 2008), competence scale for senior clinical nurses (Akamine et al., 2013) and the Holistic nursing competency scale (Takase & Teraoka, 2011). The EQT1, EQT2, competence inventory for Registered nurses, and the Australian national competency standards for Registered nurses were originally developed in the European Union, China and Australia, respectively. The competence scale for senior clinical nurses and holistic nursing competency scale were developed in Japan.

A new instrument for measuring competence in nursing has been developed by a Swedish research group**.** The instrument is called the nurse professional competence **[**NPC**]** Scale and is based on national guidelines, the WHOs European Strategy for Nursing and Midwifery. The NPC Scale consists of 88 items distributed in eight competence areas and measures self-reported professional competence (Nilsson et al**.**, 2014). The NPC translated the Scale into English to facilitate international use of the instrument (Nilsson, Gardulf, & Lepp, 2016). A short version of the nurse professional competence scale for measuring nurses' self-reported competence contained 35 items developed by Nilsson, Engström, Florin, Gardulf & Carlsson (2018). The review of related literature found only one cross sectional survey study on the relationship between nursing competence and workplace bullying among Registered nurses by using the NPC Scale (Nilsson et al., 2014). Thus, the interest of the present study was to use a short version of the nurse professional competence scale (35-item NPC Scale) (Nilsson et al., 2018).

Consequences of workplace bullying

The consequences of workplace bullying had significance related to individuals and organizations (Duffy & Sperry, 2011) in which bullying is a source of diminished job performance (Hague et al., 2007; Lutgen-Sandvik et al., 2007; Mikkelsen & Einarsen, 2002). From a humanistic perspective, this predominantly psychological scope has been utilized to address workplace bullying at an individual level, and many of the studies conducted have been clearly linked to emotional effects and therapeutic practices. This concrete research field has provided a sufficiently broad view and a group of scholars who have studied the influence of micro-organizational factors (role conflict, leadership, political aspects or organizational culture) on individual conduct (Einarsen et al., 2003). Consequently, the review of the present study was based on the study and management of bullying (Einarsen et al., 2003).

Workplace bullying and symptom experience

Workplace bullying has consequences for nurses. Targets of bullying reported increasing physical and emotional distress and maladies (Lim, Cortina, & Magley, 2008). Hutchinson et al. (2008) categorized the consequences of bullying as a) normalization of bullying in work teams; b) distress and avoidance at work and c) health effects leading to interruption of work and career.

The report of a study by Kozáková, Bužgová, and Zeleníková (2018) found 14.3 percent of nurses to have been subjected to mobbing in the previous six months. There were no statistically significant correlations between being subjected to mobbing and education, age, or length of service. Regarding the psychological consequences of mobbing, there were statistically significant associations between mobbing and sadness ($r = 0.411$), depression ($r = 0.355$) and anxiety ($r = 0.327$).

Duru, Ocaktan, Çelen, and Örsal (2018) studied in the effects of workplace bullying perception on psychological symptoms in a structural equation approach finding levels of perceived workplace bullying to increase with increasing scores for the BSI and BSI sub-dimensions of anxiety, depression, negative self-image, somatization and hostility (all $p < 0.001$). One point increase in the workplace bullying perception score was associated with a 0.47 point increase in psychological symptoms evaluated by the BSI. Moreover, the workplace bullying perception scores

were most strongly affected by the scores of anxiety, negative self-image, depression, hostility and somatization (all $p < 0.05$). ($r = .0.536$).

Yuseon and Kang (2018) conducted a study on the influencing factors and consequences of workplace bullying among nurses in a structural equation modeling finding workplace bullying to have direct ($b = .36$) and total ($b = .51$) effects on symptom experience and indirect effects ($b = .15$) on symptom experience through PsyCap.

Recognizing that an individual cannot cope with persistent stressors can lead to negative health problems (Reknes et al., 2016). According to Reknes et al. (2016), workplace bullying among nurses was the main predictive factor regarding psychological health outcomes including anxiety, depression, and fatigue. Workplace bullying can, therefore, be considered a serious stressor. In particular, when an individual has concluded that she/he cannot manage the persistent stressful situation of bullying, maladaptive responses ensue in the form of physical and psychological symptoms (Read & Laschinger, 2015; Reknes et al., 2016).

Nurses' experiences with workplace bullying have many negative effects in nurses who experience constant workplace bullying with various physical and psychological symptoms including fatigue, headaches, indigestion, sleep disturbances, anxiety, anger, depression and other posttraumatic stress disorder (PTSD) symptoms (Hutchinson et al., 2010; Reknes et al., 2016; Laschinger & Nosko, 2015). Workplace bullying causes symptom experience or exhaustion and eventually increases nurses' turnover intention (Hutchinson et al., 2010; Laschinger et al., 2012). According to a study by Sounart (2008), up to 90 percent of nurses have witnessed or been the targets of WPB, and some experts fear that this trend could push more nurses out of the clinical setting. Sounart (2008) also stated that nurses who are bullied in the workplace often develop psychological side effects such as post-traumatic stress disorder, anxiety, depression and insomnia, each of which can result in poor work performance.

Workplace bullying and burn-out

Burn-out is defined as “a state of emotional, mental and physical exhaustion caused by excessive and prolonged stress. It occurs when you feel overwhelmed and unable to meet constant demands” (Smith, Segal, & Segal, 2012). Burn-out is customarily conceptualized as a syndrome characterized by the three components used

for this study, namely emotional exhaustion, depersonalization and reduced personal accomplishment (Maslach & Leiter, 2008).

Several studies have linked exposure to workplace bullying with burn-out (Bowling & Beehr, 2006; Laschinger & Fida, 2014). Extensive research has been done to indicate that burn-out is a problem for healthcare workers, particularly nurses. According to Giorgi, Leon-Perez, and Arenas (2015) studied bullying among nurses and its relationship with burn-out and organization climate, finding workplace bullying to be associated with burn-out ($\beta = 0.47$). Also related to the study of Allen et al. (2015) examined the relationship between bullying and burn-out and found bullying to be a significant cause of burn-out ($\beta = 0.37$, $p < .001$). Moreover, Laschinger, Grau, Finegan, and Wilk (2010) tested a model linking new graduate nurses' perceptions of structural empowerment and experiences with workplace bullying and burn-out in Canadian hospitals. According to Laschinger and Nosko (2015), it was indicated that workplace bullying predicted turnover intentions through reported physical and psychological health symptoms. Therefore, although workplace bullying may not directly lead to turnover intentions, the repeated experiences of negative symptoms due to workplace bullying could lead to turnover intentions. However, workplace bullying and nurse manager ability, leadership and support of nurses also had direct effects on burn-out (Kay, 2015).

In another study of 286 nurses, all of whom were female respondents, Yildirim (2009) found that 21 percent had been exposed to bullying behaviors. It was concluded that WPB is a measurable problem that leads to decreased ability to concentrate, lack of work motivation and commitment, poor productivity and poor relationships with patients, managers and colleagues.

Workplace bullying creates several adverse effects on nurses and work environments. WPB is a potential antecedent of burn-out and intent to leave. For example, in a study of Portuguese nurses, there was a significant relationship between bullying and burn-out with symptoms of burn-out at a higher level and greater frequency among those reporting having been bullied (Sa & Fleming, 2008). Additionally, researchers have reported that verbal abuse contributes to 16-24 percent of staff turnover.

More research needs to be conducted and more work needs to be done to understand and rectify high turnover rates in addition to acknowledging and addressing WPB among hospital nurses. According to the findings, workplace bullying is significantly related to all components of burn-out in addition to related health outcomes such as burn-out and job turnover by activating cognitive mechanisms that may over time deplete available coping resources. Burn-out results from prolonged exposure to negative demands in the workplace (Maslach & Leiter, 2008).

In conclusion, the literature review revealed the antecedents, experiences and consequences of workplace bullying among senior Thai RNs. A theoretical framework for the study and management of workplace bullying was used as a guideline for developing and testing the hypothesized model for the study.

CHAPTER 3
RESEARCH METHODOLOGY

This chapter describes the research methodology used in the proposed study and includes the research design, population and sampling, research settings, research instruments, protection of human rights, data collection and data analysis procedures.

Research design

Model-testing design was used in this study. Structural equation modeling [SEM] was used to test the hypothesized model of workplace bullying among senior RNs. The antecedents included perceived nursing competence, organizational culture and authentic leadership. The consequences were burn-out and symptom experience in workplace bullying among senior RNs. SEM examined the structure of interrelationships expressed in a series of equations. These equations depicted all of the associations among constructs or latent variables. Additionally, SEM depict the relationships among the observed variables and provide a better way of empirically examining a theoretical model by involving both the measurement model and a structural model in one analysis (Hair, Black, Babin, & Anderson 2010).

Population and sample

Target population

The target population of this study was staff nurses aged more than 40 years and working in tertiary care hospitals under the Ministry of Public Health of Thailand in 2019.

Sample Size and Sampling Technique

Sample

The sample was RNs working in tertiary care hospitals under the Ministry of Public Health of Thailand, who met the following inclusion criteria for participation in the study: 1) age more than 40 years; 2) good health with no mental disorders and no physical problems such as cancer.

Sample size

The sample size estimation in the proposed study was based on structural equation model testing. Hair et al. (2010) stated that a sample size of SEM must be based on a set of factors. Kline (2011) suggested that a "typical" sample size in studies with SEM is approximately 200 cases corresponds to the approximate median sample size and a minimum ratio of at least five respondents per estimate parameter. There were 52 estimated parameters in this study (23 errors, 23 factors loading, and 6 path coefficients). Based on the above suggestion, the minimum sample ratio 5:1 resulted in a sample size of 260 subjects. For dropout, incomplete responses and non-returned questionnairs, an additional 12 percent was included. Additionally, a dropout rate of an additional 12 percent was added for incomplete responses and questionnaires returned. Therefore, a total of 288 participants were recruited for this study.

Setting

This study focused on RNs working in tertiary care hospitals under Thailand's Ministry of Public Health. Hospitals in Thailand that can also be categorized by bed size and hospital level. For example, community hospitals were grouped from the first level to the middle-level (F1-M2) with a capacity of 30-120 beds (780 hospitals) middle level (M1) or small regional level hospitals with a capacity of 120-200 beds (35 hospitals), standard level [S] or large regional hospitals with a capacity of 200-500 beds (48 hospitals) and advance level hospitals [A] with a capacity of over 500 beds (33 tertiary care hospitals) (Bureau of Health Policy and Strategy, Ministry of Public Health., 2010). The standard [S] and advance [A] level hospitals have many units offering special care and specialists. This study examined the complex organizational structure of these hospitals and staff nurses must have specialty skills. Consequently, the settings of the study were hospitals performing multi-specialty care. Hence, the researcher selected the setting in standard [S] and advance [A] level hospitals under the Ministry of Public Health of Thailand.

Sampling

A multi-stage random sampling method was used to recruit subjects from 33 tertiary care hospitals under the Ministry of Public Health of Thailand.

First, the study area was divided into four cluster regions in Thailand: northern region, northeastern region, central region and southern region.

Second, one hospital was randomly selected from each of the above four regions. Thus, the northern region was represented by Utaradit Hospital, the northeastern region was represented by Buriram Hospital, central region was represented by Ayuthaya Hospital and the southern region was represented Nakorn Si-Thammarat Hospital.

Third, 72 subjects were randomly selected from a list of senior nurses aged more than 40 years and working in each tertiary care hospitals. Resulting in total of 288 RNs from 33 tertiary care hospitals as shown in Figure 3-1 below.

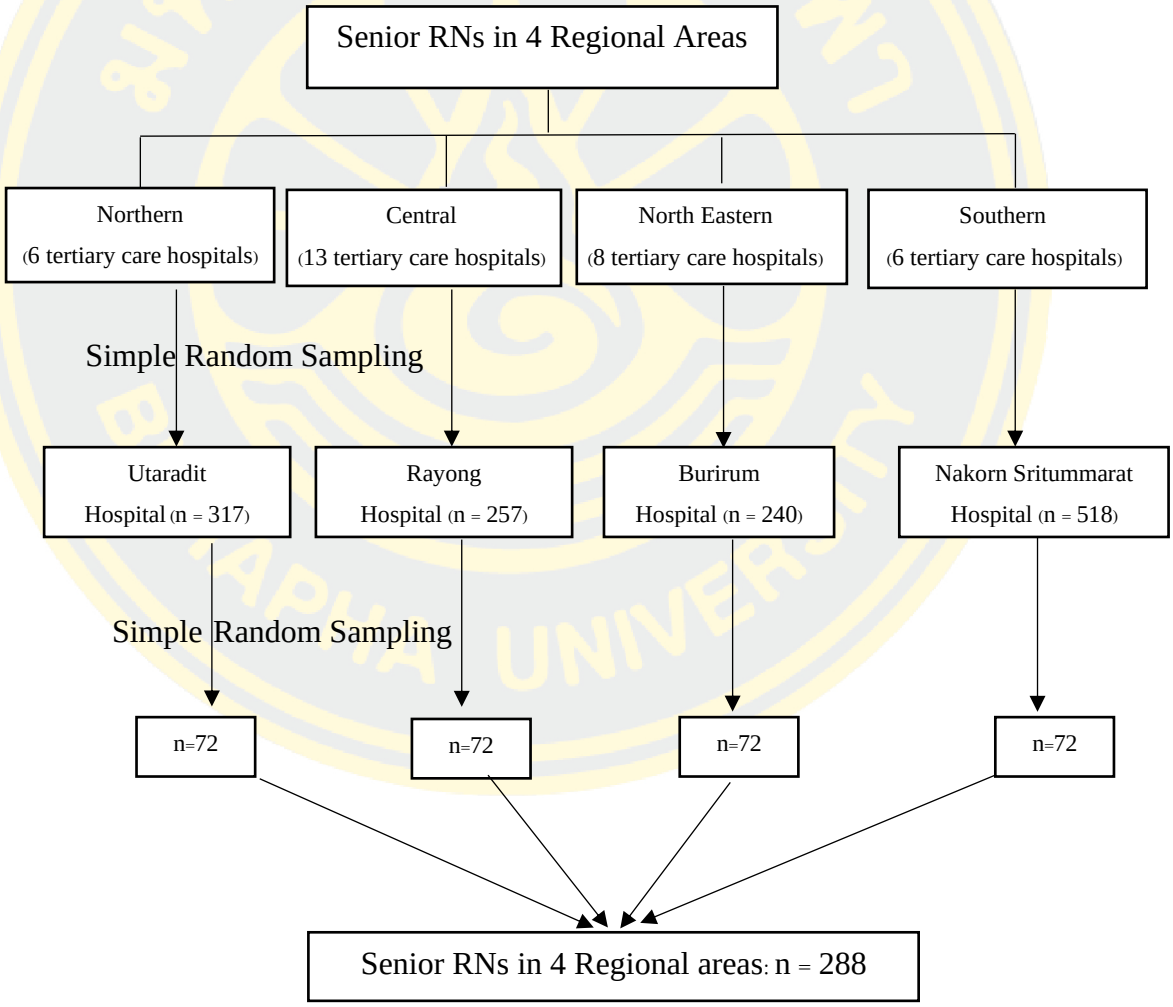


Figure 3-1 Multi-stage random sampling technique for the study

Instruments

Data were collected through the use of the following seven instruments: 1) a personal demographic information questionnaire; 2) Authentic leadership questionnaire [ALQ]; 3) an organizational culture questionnaire; 4) negative acts questionnaire revised [NAQ-R]; 5) brief symptom Inventory-18 [BSI-18]; 6) maslach burn out inventory [MBI] and 7) nursing competence questionnaire [NPQ].

The details of these instruments are described as follows:

1. Personal demographic information

The personal demographic information questionnaire was developed by the researcher to collect data on age, gender, marital status, position at work, years of nursing experience, type of unit, experience witnessing the bullying of a colleague and feelings of being bullied in the workplace.

2. Authentic leadership questionnaire [ALQ]

The ALQ was developed by Sikkhaphan (2015) and used to assess perceptions of senior nurses to authentic leadership of their head wards. This questionnaire consisted of 16 items categorized into four subscales with five items on relational transparency, four items on moral-ethical perspectives, three items on balanced processing and four items on self-awareness. The participants were asked to rate on a four-point scale (0 = strongly disagree; 1 = disagree; 2 = not sure; 3 = agree and 4 = strongly agree). The ALQ total scores ranged from 0 to 64. Higher total scores indicated higher levels of authentic leadership of head wards. Cronbach's alpha coofficiant of the 16 items was .90 (Sikkhaphan, 2015). A confirmatory approach was used to test the underlying dimensions of the ALQ (Sikkhaphan, 2015).

3. Organizational culture [OC] questionnaire

Organization culture was measured by using the questionnaire of the organizational culture Hofstede's concept (1980) developed and validated by Apisakkul (2006). This questionnaire contained four domains classified into six characteristics with a total of 26 items in six subscales covering the following areas: power distance (5 items); uncertainty avoidance (5 items); individualism (5 items) and collectivism (5 items); masculinity (5 items) and femininity (5 items). The participants rated each item on a 5-point scale ranging from 1 = never expressed;

2 = slightly expressed; 3 = moderate expression; 4 = very expressive and 5 = most expressive. Total scores ranged from 26 to 130. Higher scores indicated better respondents' organizational cultures. In terms of reliability evidence, Cronbach's alpha for the 26 items in the Organizational culture [OC] was .73, which indicated internal consistency (Hofstede, 1995). A confirmatory approach was used to test the underlying dimensions of the Organizational culture [OC].

4. Negative acts questionnaire revised [NAQ-R]

The NAQ-R was measured by the Thai version of NAQ-R Inventory, which was originally developed by Einarsen et al., (2009) and translated into a Thai version by Sungwan (2018). In the present study, the questionnaire was used to examine the level of bullying among Thai nurses. It contained 25 items intended to measure exposure to bullying within the six months preceding data collection. The first 22 items of the NAQ-R focused on the aspects of bullying by measuring the following three inter-related factors: work-related factors (7 items); person-related factors (12 items) and physical intimidation factors (3 items) (Einarsen et al., 2009). The last item identified self-labeled victimization from bullying during the last six months preceding data collection. Items were rated on a five-point scale as follows: 1 = never; 2 = seldom; 3 = monthly; 4 = weekly and 5 = daily.

Total scores ranged from 22 to 110 points. The frequency of each item in the NAQ-R indicated the prevalence of negative acts. Low scores indicated rare to minimal exposure to negative behavior, whereas high scores were associated with frequent to constant exposure to negative behavior (Einarsen, Hoel & Notelaers, 2009). The NAQ-R can be scored in its entirety, as well as evaluated according to its factors; work-related bullying, person-related bullying, and physical-related bullying. Notelaers and Einarsen (2013) reported a total score of 33 or lower (< 33) indicates that a participant is not being bullied at work, a total score between 34 and 45 (34-45) indicates occasional bullying, and a total score over 45 (46-110) is indicative of daily bullying.

In terms of reliability evidence, Cronbach's alpha for the 22 items in the NAQ-R scored.95, which indicated excellent internal consistency (Einarsen et al., 2009). A confirmatory approach was used to test the underlying dimensions of the NAQ-R with three distinguishable measurement models.

5. Brief symptom inventory-18 [BSI-18]

Symptom experience was measured by using the brief symptom inventory-18 (BSI-18) originally developed by Derogatis (2000) to assess participants'psychological functioning. The survey included 18 items as a short form of the BSI composed of the following three subscales: anxiety, depression and somatization scales. This tool comprised 18 items in the following four subscales: somatization (5-items); depression (6-items); anxiety (4-items) and panic (3-items). A 5-point Likert scale was used to rate the items in terms of degree of suffering over the last seven days with total scores ranging from 0 (not at all) to 4 (very serious). Items were rated on a five-point scales as follows: 0 = none; 1 = slight; 2 = moderate; 3 = much and 4 = most. Total score ranged from 0 to 72 points. Higher scores indicated higher numbers of negative symptoms over the past seven days. In terms of reliability evidence, Cronbach's alpha for the 22 items in the brief symptom Inventory-18 [BSI-18] was .95. A confirmatory approach was used to test the underlying dimensions of the BSI-18 with three distinguishable measurement models.

6. Maslach burn out inventory [MBI]

The MBI was measured by the Thai version of the Maslach burn out inventory [MBI] originally developed by Maslach, Jackson, and Inventory (1981) and translated into Thai by Summawart (1989). The instrument contained 22 items with the following three subscales: emotional exhaustion (EE); depersonalization [DP] and personal accomplishment [PA]. The inventory was used to measure level of burn-out. The frequency scale was labeled at each point, ranging from 0 (never) to 6 (daily). Each item was rated by using a 7-point rating scale with scores ranging from 0 = (never experience the feeling or attitude) to 6 = daily experience with the feeling or attitude. Each subscale was scored separately and individual scores were not combined to obtain a total score. Total score ranged from 0 to 132. Higher scores indicated a higher degree of experienced burn-out. In terms of reliability evidence, Cronbach's alpha for the 22 items in the Maslach burn-out inventory [MBI] scored.87, which indicated internal consistency (Maslach et al., 1981). A confirmatory approach was used to test the underlying dimensions of the MBI with three distinguishable measurement models.

7. Nurse professional competence [NPC]

Nursing competence was measured by the NPC scale short form (NPC scale-SF) containing 35-items developed by Nilsson et al., (2018) for measuring self-reported professional competence among Registered nurses (Nilsson et al., 2014). The 35 items on the NPC Scale were based on competence requirements for Registered nurses [RNs]. The original NPC scale (an 88-item version of the NPC scale) was published by World Health Organization (WHO). (2001).

The theoretical framework of the NPC contained categories with the following six factors: Nursing care (5 items), value-based nursing care (5 items), contributing to a holistic view of the patients' medical and technical care (6 items), care pedagogics (5 items), documenting and administering nursing care (8 items), developing leadership and organization of nursing care (6 items). The frequency scale was labeled at each point within a range from 1 (very low level) to 7 (very high level). Total scores ranged from 35 to 245. Higher scores indicated a higher degree of nursing competence. Content validity was confirmed by six expert groups composed of nurses and nurse managers. In terms of reliability evidence, Cronbach's alpha for the 35 items in the NPC scale short form [NPC scale-SF] scored.98, which indicated internal consistency (Nilsson et al., 2014). A confirmatory approach was used to test the underlying dimensions of the NPC scale-SF.

Psycometric properties of the instruments

Validity

The content validity of all instruments were validated in previous studies. However, the construct validity of each questionnaire was tested in this study using confirmatory factor analysis, which was carried out under the AMOS program to estimate the detailed measurement model.

Four of the quesionaires had been previously used in Thailand. The Authentic leadership questionnaire [ALQ] was developed by Sikkhaphan (2015). The organizational culture questionnaire was developed and validated by Apisakkul (2006). The Negative acts questionnaire revised [NAQ-R] was developed by Einarsen et al., 2009 and translated into a Thai version by Sungwan (2018). The Maslach burn out inventory [MBI] was developed by Maslach et al., (1981) and translated into Thai by Summawart (1989).

Translation of instruments

Two original English quesionaires were translated in this sudy. The forward and backward translation methods were used in this process (Brislin, 1970). At first, the original English versions of the scales were translated into the Thai language by two doctoral prepared bilingual (Thai and English) experts. After performing a separate initial translation, the two versions were compared and the differences in translation were resolved. Next, the translation questionnaires were given to another bilingual translator who back-translated the items into English without access to the original survey with additional proficient bilingual linguists who had never seen the original English version. Finally, the major advisor, who is a bilingual native Thai speaker reviewed and compared the contents of each item in terms of cultural acceptability, grammatical accuracy and item structure between the original and back translated English versions of each of the tools.

Reliability

The internal consistency reliabilies of all quesionaires were tested with 30 staff nurses working at a tertiary hospital (Rayong Hospital). The acceptable reliability value was 0.80, whereas a new instrument can be 0.70 or over (Polit & Beck, 2012).Cronbach's alpha values for the instruments were as shown in Table 3-1.

Table 3-1 Variables and questionnaire related to measures used in the analysis

Variable	Measurement	Level of measurement	No. of items	Cronbach's Alpha	Cronbach's Alpha for present study
Workplace Bullying	Thai version of the Negative Acts Questionnaire (NAQ-R)	Interval	22	.90 by Sungwan (2018)	.95
Authentic Leadership	Authentic leadership questionnaire [ALQ]	Interval	16	.98 by Sikkhaphan. (2015)	.90
Organizational Culture	Organizational Culture questionnaire	Interval	26	.77 by Apisakkul. (2006)	.73
Nursing Competence	Nurse professional competence [NPC]	Interval	35	.70 by Nilsson et al., (2018)	.98
Symptom Experience	Brief Symptom Inventory-18 (BSI-18)	Interval	18	.91 by Derogatis (2000)	.95
Burn-out	Maslach Burn Out Inventory (MBI) Thai version	Interval	22	.90 by Summawart (1989)	.87
	Total		139		

Ethical considerations

Prior to data collection, approval was obtained from the Institutional Review Board [IRB] for Graduate Studies, Faculty of Nursing, Burapha University, number of the IRB approval 01-06-2562. After receiving permission to conduct the study, the researcher contacted the human rights research board committees of each hospital.All of the staff RNs who volunteered to participate were informed about the research objectives and methods. The participants were assured of data confidentiality and voluntary participation. No more than minimal risks were anticipated in answering the questions. The participants were allowed to withdraw from the study any time without penalty or loss of benefits after informed consent was obtained. The presentation of the findings maintained the confidentiality of individual responses. The questionnaires

were completed by nurses during their private time. The data were kept in locked cabinets and only the researcher had access to the data, which will be destroyed over years.

Data collection procedures

Data collection started after the IRB approval from Faculty of Nursing, Burapha University. Then the researcher submitted a research proposal to the four research ethics committees of the tertiary care hospitals under Thailand's Ministry of Public Health in four provinces: 1) Rayong Hospital, IRB number is RYH REC No.E012/ 2562 2) Buriram Hospital, IRB number is บร 0032.102.1/21, 24/08/62; 3) Utaradit Hospital; IRB number is ;12/2019 and 4) Nakorn Sritummarat Hospital, IRB number is 33/ 2562, depending on the condition of each tertiary care hospital in the provinces. Next, the researcher made preliminary contact with the all of the four hospitals. Data collection was conducted as follows:

1. The researcher contacted the nurse directors at all of the selected hospitals at the appropriate time for collecting data after the research permission had been granted.
2. The researcher selected research coordinators from each hospital to help collect data. The researcher trained the research coordinators before collecting data on issues on how to randomly sample, how to complete each questionnaire, how to motivate completion of the questionnaires and how to check for completed questionnaires before sending the package of questionnaires to return to the researcher.
3. The research coordinators selected the participants who met the inclusion criteria with ages of more than 40 years at each hospital. The participants were selected by the simple random sampling method from the name list of each hospital.
4. The researcher packaged the questionnaires with the following: information sheets, informed consent forms, questionnaires and return envelopes, then distributed the packages to the potential participants by requesting cooperation in completing the questionnaires in their private time. The information sheets explained the objectives of

study, the methods for assurance of confidentially, anonymity, right to withdraw and time frame for completion of the questionnaires.

5. The research coordinators asked the participants to return the completed questionnaires the following week or within the following week and invited the participants to place their questionnaires in a designated box placed at each hospital.

6. The researcher coordinators checked each page of the questionnaires for the completion. The questionnaires returned in sealed envelopes were collected from the designated boxes at each hospital by the research coordinators.

7. The researcher received all of the questionnaires with a response rate of 100 percent from the research coordinators and screened for completeness before analyzing the data obtained. The obtained data were analyzed by using the appropriate statistical analyses.

Data analysis

Data analysis was performed by using a statistical software program. The details of the data analysis are described as follows:

1. The demographic data of the samples were analyzed by descriptive statistics including frequency, percentage, mean and standard deviation. Furthermore, the percentage of each category was shown.

2. Structural equation modeling [SEM] was conducted to statistically test the hypothesized model on workplace bullying.

CHAPTER 4
RESULTS

This chapter presents the research findings, including the participants' characteristics, descriptive statistics of the major study variables, testing of assumptions and testing of the research hypotheses.

Participants' characteristics

The initial sample was 288 subjects from four regional hospitals of the Thailand's Ministry of Public Health. Most of the participants were females (97.92%) aged 40-44 years (44.79%), married or cohabiting (64.93%) had graduated at the bachelor degree level (88.54%), had 21-30 years of working experience (51.04%) held professional nurse positions (70.49%) had monthly income equal to 30,000 - 40,000 baht and were assigned to a surgery ward (16.67%).

Table 4-1 Demographic characteristics of the sample (n = 288)

Characteristics	*n*	%
Gender		
Male	6	2.08
Female	282	97.92
Age (years)		
40-44	129	44.79
45-49	73	25.35
50-54	50	17.36
55-59	34	11.81
Marital status		
Single	72	25.00
Married	187	64.93
Widowed	9	3.13
Divorced/ Separated	20	6.94

Table 4-1 (Continued)

Characteristics	*n*	%
Education level		
Bachelor degree	255	88.54
Master degree	33	11.46
Work experience		
Less than 10 years	3	1.04
11-20 years	94	32.64
21-30 years	147	51.04
31-40 years	43	14.93
40 years & up	1	0.35
Position		
Registered nurse, Practitioner level	83	28.82
Registered nurse, Professional level	203	70.49
Registered nurse, Senior professional level	2	0.69
Monthly income		
Less than 20,000 baht	1	.35
20,000 - 30,000 baht	26	9.03
30,000 - 40,000 baht	98	34.03
40,000 - 50,000 baht	93	32.29
More than 50,000 baht	70	24.31
Ward		
Medical ward	38	13.19
Surgery ward	48	16.67
Obstetrics and gynecology	35	12.15
Pediatrics	23	7.99
Intensive care unit	35	12.15
Out patient	38	13.19
Operation room	29	10.07
Special rard	42	14.58

Workplace bullying

The results of this study show the highest rated behaviors of negative acts (ated weekly) to include being exposed to an unmanageable workload (n = 18, 6.25%); spreading of gossip and rumors about you (n = 2, 0.69%) and having someone withholding information that affects your performance (n = 1, 0.35%); being ordered to do work below your level of competence (n = 1, 0.35%); having key areas of responsibility removed or replaced with more trivial or unpleasant tasks (n = 1, 0.35%); being shouted at or being the target of spontaneous anger (or rage) (n = 1, 0.35%); being subjected to practical jokes carried out by people you don't get along with (n = 1, 0.35%); being given tasks with unreasonable or impossible targets or deadlines (n = 1, 0.35%);excessive monitoring of your work (n = 1, 0.35%). And the daily rating included only being ordered to do work below your level of competence (n = 1, 0.35%). These data are shown in table 4-2. The full table of frequencies of bullying behaviors is found in appendix E.

Table 4-2 Frequency and percentages of perceived negative acts reaching workplace bullying (n = 288)

NAQ-R item	***n* (%)**		
	Weekly	**Daily**	**Total**
1. Someone withholding information that affects your performance	1(0.35)	0(0.00)	1(0.35)
2. Being humiliated or ridiculed in connection with your work	0(0.00)	0(0.00)	0(0.00)
3. Being ordered to do work below your level of competence	1(0.35)	1(0.35)	2(0.69)
4. Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	1(0.35)	0(0.00)	1(0.35)
5. Spreading of gossip and rumors about you	2(0.69)	0(0.00)	2(0.69)
6. Being ignored, excluded or isolated from others	0(0.00)	0(0.00)	0(0.00)

Table 4-2 (Continued)

NAQ-R item	*n* (%)		
	Weekly	**Daily**	**Total**
7. Having insulting or offensive remarks made about your person (habits and background), your attitudes or your private life	0(0.00)	0(0.00)	0(0.00)
8. Being shouted at or being the target of spontaneous anger (or rage)	1(0.35)	0(0.00)	1(0.35)
9. Being subjected to intimidating behavior such as finger-pointing, invasion of personal space, shoving, blocking/barring the way	0(0.00)	0(0.00)	0(0.00)
10. Hints or signals from others that you should quit your job	0(0.00)	0(0.00)	0(0.00)
11. Repeated reminders of your errors or mistakes	0(0.00)	0(0.00)	0(0.00)
12. Being ignored or facing a hostile reaction when you approach	0(0.00)	0(0.00)	0(0.00)
13. Persistent criticism of your work and effort	0(0.00)	0(0.00)	0(0.00)
14. Having your opinions and views ignored	0(0.00)	0(0.00)	0(0.00)
15. Being subjected to practical jokes carried out by people you don't get along with	1(0.35)	0(0.00)	1(0.35)
16. Being given tasks with unreasonable or impossible targets or deadlines	1(0.35)	0(0.00)	1(0.35)
17. Having allegations made against you	0(0.00)	0(0.00)	0(0.00)
18. Excessive monitoring of your work	1(0.35)	0(0.00)	1(0.35)
19. Pressure not to claim something to which you are entitled (sick leave, holiday entitlement, travel expenses)	0(0.00)	0(0.00)	0(0.00)
20. Being the subject of excessive teasing and sarcasm	0(0.00)	0(0.00)	0(0.00)
21. Being exposed to an unmanageable workload	18(6.25)	0(0.00)	18(6.25)
22. Threats of violence or physical abuse or actual abuse	0(0.00)	0(0.00)	0(0.00)

For the question [Item 23] asking the participants whether they felt they had experienced workplace bullying within the last six months, most senior nurses answered that they had never experienced workplace bullying (86.46%, *n* = 249), thereby indicating that they had not experienced workplace bullying within the last six months. Some of the senior nurses (13.54%, *n* = 39) responded "Yes, but only rarely". Approximately 9.72 (*n* = 28) of the nurses indicated they had experienced some form of bullying within the previous six months. These data are presented in Table 4-3.

Table 4-3 Prevalence of perceived negative acts reaching workplace bullying (*n* = 288)

Rating categories	Frequency	%
No	249	86.46
Yes	39	13.54
Yes, but only rarely	28	9.72
Yes, Now and then	8	2.78
Yes, Several times per week	1	0.35
Yes, Almost daily	2	0.69

For the question [Item 24] that asked the participants who were bullied at work to state they were bullied by whom. This item can answer more than one but all participant responded only one perpetrator. Most of the senior RNs stated that a colleague (23.08%, *n* = 9) or immediate superior (10.26%, *n* = 4) was the perpetrator and other supervisors/ managers in the organization (51.28%, *n* = 20). These data are presented in Table 4-4.

Table 4-4 Frequency and percentages of perpetrator (n = 39)

Perpetrator	Frequency	%
Colleagues	9	23.08
Immediate Supervisor	4	10.26
Other Supervisors/ Managers in the Organization	20	51.28
Subordinates	6	15.39

For the question [Item 25] that asked the participants to state the number and gender of their perpetrators, the senior RNs mainly stated number of perpetrators as subordinates being female at 48.72%. Moreover, the number of male perpetrator was less than females. These data are shown in Table 4-5.

Table 4-5 Frequency and number of perpetrators (n = 39)

Perpetrator	Female		Male	
	Frequency	%	Frequency	%
Colleagues	9.00	23.07	0.00	0.00
Immediate Supervisor	7.00	17.95	2.00	5.13
Other Supervisors/ Managers in the Organization	4.00	10.26	0.00	0.00
Subordinates	19.00	48.72	1.00	2.56

The sum score of NQA-R shows that indicated that they had not being bullied at work (RNs 86.46%, n = 249) indicated that they had occasional bullying (12.50%, n = 36). Nevertheless, the scores indicated that senior RNs had daily bullying (1.04%, n = 3) which was different from their feelings that they had experienced workplace bullying within the last six months only. These data shown in Table 4-6.

Table 4-6 Frequency of exposure to workplace bullying (n = 288)

Rating categories	Frequency	%
No bullying at work (< 33)	249	86.46
Occasional bullying (34-45)	36	12.50
Daily bullying (46-110)	3	1.04

The overall mean score on the NAQ-R that measures workplace bullying had a value that was fairly low in the range of possible scores (M = 32.76, SD = 4.48). The mean scores of the three subscales (work-related, personal-related, and physical intimidation) also had values that were in the lower range of possible scores (M = 10.60, SD = 2.12; M = 17.92, SD = 3.30; M = 4.24, SD = 0.80, respectively). The overall mean score was approximately one point lower than the threshold cutoff score of 33 for the NAQ-R for workforce bullying. Given the large SD, some individual scores would have met the statistical criteria for workforce bullying. These data are shown in Table 4-7.

Table 4-7 Descriptive statistics of workplace bullying and its subscales (n = 288)

Variable	Possible range	Actual range	*M*	*SD*
Workplace bullying (Overall)	22-110	23-42	32.76	4.48
Work related factors	5-35	7-17	10.60	2.12
Person-related factors	12-60	12-27	17.92	3.30
Physical intimidation factors	3-15	3-6	4.24	0.80

Descriptive statistics of antecedences, consequences of variables

The conceptual framework of this study was guided by a conceptual model for the study and management of bullying at work developed by Einersen et al.,

(2003). The model had three antecedences variables including: organizational culture, authentic leadership, nursing competency, and two consequences variables including symptom experience and burn-out. Descriptive statistics for each variable can be described as follows:

Organizational culture

These results indicate that both overall organizational culture and its subscales were moderate. The organizational culture had scores of M = 97.15, SD = 5.21. Its subscales, namely power distance, uncertainty avoidance, individualism and collectivism, and masculinity and femininity had potential scores of M = 12.64, SD = 1.89; M = 20.90, SD = 2.28; M = 29.75, SD = 2.31; M = 33.86, SD = 2.79, respectively. The scores for each cultural dimension were interpreted as shown in the table below. Senior RNs perceived the organizational culture to have high scores for masculinity and had moderate scores for Uncertainty Avoidance. The descriptive statistics of the organizational culture and its subscales are described in Table 4-8.

Table 4-8 Descriptive statistics of overall organizational culture and its subscales (n = 288)

Variable	Possible range	Actual range	*M*	*SD*
Organizational culture (Overall)	26-130	84-108	97.15	5.21
Power distance	4-20	7-18	12.64	1.89
Uncertainty avoidance	6-30	16-26	20.90	2.28
Individualism and collectivism	8-40	23-35	29.75	2.31
Masculinity and femininity	8-40	28-40	33.86	2.79

Authentic leadership

The overall mean score on the authentic leadership had a value that was fairly low in the range of possible scores (M = 44.77, SD = 5.51). The mean scores for the

four subscales (transparency, morality/ ethics, justice, self-awareness) also had values that were in the lower range of possible scores (*M* = 13.59, *SD* = 2.18; *M* = 11.85, *SD* = 1.96; *M* = 8.37, *SD* = 1.42; *M* = 10.95, *SD* = 1.94, respectively). These data are shown in Table 4-9.

Table 4-9 Descriptive statistics for authentic leadership and its subscales (*n* = 288)

Variable	Possible range	Actual range	*M*	*SD*
Authentic leadership (Overall)	0-60	32-56	44.77	5.51
Relational transparency	0-20	9-20	13.59	2.18
Moral-ethical perspectives	0-16	6-16	11.85	1.96
Balanced processing	0-12	5-12	8.37	1.42
Self-awareness	0-12	5-12	10.95	1.94

Nursing competence

The overall mean score for nursing competency was 203.85, (*SD* = 15.29). The mean scores of the six subscales (nursing care, value-based nursing care, contributions to a holistic view of the patients medical and technical care, care pedagogics, document and administration nurses, development leadership and organization of nursing care) also had values that were in the lower range of possible scores (*M* = 28.35, *SD* = 4.28; *M* = 35.60, *SD* = 4.36; *M* = 29.17, *SD* = 3.29; *M* = 29.93, *SD* = 2.96; *M* = 47.24, *SD* = 5.00; *M* = 33.56, *SD* = 4.54, respectively). These data are shown in Table 4-10.

Table 4-10 Descriptive statistics on nursing competency and its subscales (n = 288)

Variable	Possible range	Actual range	*M*	*SD*
Nursing competence (Overall)	35-245	168-231	203.85	15.29
Nursing care	5-35	19-35	28.35	4.28
Value-based nursing care	5-35	24-42	35.60	4.36
Contributing to a holistic view of Patients' medical and technical care	6-42	20-34	29.17	3.29
Care pedagogic	5-35	25-35	29.93	2.96
Document and administrative nurse	8-56	32-56	47.24	5.00
Development leadership and Organization of nursing care	6-42	18-42	33.56	4.54

Symptom experience

The overall mean score on symptom experience was moderate (M = 33.06, SD = 10.26). The mean scores of the three subscales (anxiety, somatization, depression) were also lower (M = 4.24, SD = 0.80; M = 16.26, SD = 4.40; M = 8.72, SD = 4.43, respectively). These data are shown in Table 4-11.

Table 4-11 Descriptive statistics of symptom experience and its subscales (n = 288)

Variable	Possible range	Actual range	*M*	*SD*
Symptom experience (Overall)	0-72	12-58	33.06	10.26
Anxiety	0-28	3-6	4.24	0.80
Somatization	0-20	8-20	16.26	4.40
Depression	0-24	0-18	8.72	4.43

Burn out

The results of this study on burn-out had a possible scoring range from 12-58 with a mean of 33.06 (SD = 10.261). For the subscales (emotional exhaustion, depersonalization and personal accomplishment) the possible scores were M = 16.26, SD = 4.396; M = 8.72, SD = 4.426; M = 8.09, SD = 3.620, respectively. Therefore, these results indicate that new RNs had moderate degrees of burn-out. These data are presented in Table 4-12.

Table 4-12 Descriptive statistics on burnout and its subscales (n = 288)

Variable	Possible range	Actual range	*M*	*SD*
Burn-out (Overall)	0-132	12-58	33.06	10.261
Emotional exhaustion	0-54	8-26	16.26	4.396
Depersonalization	0-30	0-18	8.72	4.426
Personal accomplishment	0-48	0-17	8.09	3.620

Burn out had three indicators composed of emotional exhaustion, personal accomplishment and depersonalization. The model of burn-out had no construct validity and no fit with the empirical data ($\chi 2$ = 0.00, df = 1, p = 0.998, $\chi 2/ df$ = 0.00, GFI = 1.00, RMR = 0.00, CFI = 1.00, RMSEA = 0.00). Therefore, the assessment of

the correlations among the indicators could be measured by correlation coefficients among the independent variables. An appositive correlation means a change in a dependent item. A coefficient of a negative correlation means a change in an independent item will result in an identical change in the dependent item, but the change will be in the opposite direction (Kline, 2011). The correlation matrix among the indicators of burn-out presented in Table 4-13.

Table 4-13 The correlation matrix among indicator of burn-out

	SBURN	**EE**	**DP**	**PA**
SBURN	1			
EE	.773**	1		
DP	.495**	.223*		
PA	0-48	.278**	.064	1

The correlation matrix for the indicator of burn-out is presented in the table below. Three components had a coefficient of positive correlation with burn-out. Kline (2011) stated that this could occur when there are only two indicators per factor or when the sample size is less than 100-150 cases. However, Maslash et al., (1996) reported the reliability coefficient for each subscale as 0.90 for EE, 0.79 for DP, and 0.71 for PA. Therefore, the researcher did not reduce this component from the model.

Evaluation of assumptions

Data management was performed for all of the variables in the model. The types used for testing the assumptions in the SEM analysis included missing, outlier, normality, linearity and multicollinearity (Schumacker & Lomax, 2010; Tabachnick, Fidell, & Ullman, 2007). The assumptions must be met to reduce potential distortion and bias in the results and to facilitate an estimation process or results from interpretation (Hair et al., 2010; Schumacker & Lomax, 2010; Tabachnick et al., 2007).

First, missing data was checked. Originally, the total sample was 288 nurses. However, the results showed that there were no missing data.

Second, univariate outliers were examined to confirm freedom of data outlier. According to Tabachnick et al. (2007), a standardized scored was used to assess univariate outliers. Any cases with scores less than -3.29 standard deviation or more than 3.29 standard deviation would have been considered an outlier; there were no outliers in these findings. For multivariate outliers, the Mahalanobis distance statistic, which indicates the distance of a case from the centroid of the means of all variables, was used and evaluated by using the χ^2 distribution. A case of χ^2 value equal to or less than .05 was labeled as a multivariate outlier (Tabachnick et al., 2007); the findings on the test results showed that there were no multioutliers. Therefore, all 288 cases were tested for normality of distribution, linearity and multicollinearity.

Next, in the multivariate analysis, all variables had normal distribution. Normality was tested by examining the statistics and using graphical methods (Hair et al., 2010; Tabachnick et al., 2007). The symmetric distribution of skewness and peakness distribution of kurtosis were zero, and the critical ratios for both were between -2.56 and 2.56, which presented normal distribution (Hair et al., 2010; Tabachnick & Fidell, 2007).

Before further analysis, linearity assumption was determined by using Pearson's correlation coefficient (Schumacker & Lomax, 2010; Tabachnick et al., 2007). The bivariate relationships between the study variables did not show a non-zero correlation as shown in Table 4-11. Finally, the multicollinearity assumption was tested. There are three ways to test multicollinearity, including using Pearson's correlation coefficients between variables, tolerance value and variance inflation factor [VIF].

In terms of multicollinearity, there was no problem with the correlation matrix that occurred when variables are not highly correlated ($r \geq 0.90$). The tolerance value had to be higher than 0.20. (Blunch, 2012; Hair et al., 2010). (Tabachnick et al., 2007). Additionally, the correlation coefficients among the variables ranged from -0.699 to 0.732, as shown in Appendix 5, thereby indicating no Pearson's correlations greater than 0.90, as shown in Appendix 4. A tolerance value ranged from 0.289 to 0.495, as shown in Appendix 5, thereby indicating no tolerance values less than 0.20

and VIF values ranging from 2.021 to 3.458, as shown in Appendix 5. Consequently, no evidence of multicollinearity was found among the study variables.

Table 4-14 Correlation matrix of the study variables (n = 288)

	PD	UA	IC	MF	RT	BP	MTA	SA	NC
PD	1								
UA	-.099	1							
IC	-.235**	.410**	1						
MF	.275**	.109	-.032	1					
RT	.149*	.219**	.140*	.119*	1				
BP	.351**	.374**	.234**	.394**	.176**	1			
MP	.509**	.260**	.152**	.278**	.327**	.629**	1		
SA	.464**	.314**	.070	.355**	.182**	.544**	.499**	1	
NC	.372**	.294**	.078	.325**	.295**	.490**	.637**	.474**	1
VN	.220**	.312**	.124*	.122*	.360**	.383**	.327**	.375**	.378**
MTC	.138*	.039	.173**	.037	.091	.152**	.234**	.213**	-.132*
CP	.225**	.223**	.071	-.005	.254**	.326**	.269**	.286**	.161**
DL	.345**	.370**	.190**	.271**	.431**	.447**	.559**	.583**	.576**
WR	-.206**	-.424**	-.314**	-.160**	-.236**	-.438**	-.408**	-.692**	-.372**
PI	-.439**	-.185**	-.053	-.246**	-.247**	-.374**	-.421**	-.415**	-.383**
AA	-.063	-.401**	-.117*	-.142*	-.202**	-.469**	-.288**	-.405**	-.273**
DD	-.052	-.514**	-.210**	-.103	-.283**	-.436**	-.269**	-.346**	-.274**
SS	.106	-.261**	-.419**	.084	-.227**	-.252**	-.184**	-.150*	-.123*
EE	-.387**	-.233**	.034	-.278**	-.152**	-.534**	-.412**	-.793**	-.428**
DP	-.277**	-.281**	-.269**	-.091	-.288**	-.232**	-.269**	-.415**	-.169**
PA	-.021	-.143*	.043	.049	-.105	-.082	-.173**	-.082	-.132*

Table 4-14 (Continued)

	VN	MTC	CP	DL	WR	PI	AA	DD	SS	EE	DP	PA
PD												
UA												
IC												
MF												
RT												
BP												
MP												
SA												
NC												
VN	1											
MTC	.211**	1										
CP	.280**	.231**	1									
DL	.559**	.187**	.466**	1								
WR	-.297**	-.165**	-.293**	-.528**	1							
PI	-.224**	-.178**	-.521**	-.467**	.294**	1						
AA	-.549**	-.059	-.337**	-.458**	.370**	.240**	1					
DD	-.619**	-.104	-.223**	-.488**	.411**	.210**	.734**	1				
SS	-.286**	-.093	.089	-.230**	.395**	-.126*	.306**	.466**	1			
EE	-.293**	-.100	-.336**	-.477**	.632**	.333**	.348**	.271**	-.009	1		
DP	-.241**	-.212**	-.470**	-.424**	.370**	.377**	.281**	.184**	.239**	.223**	1	
PA	.140*	.033	-.396**	-.180**	.059	.172**	.062	-.065	-.319**	.278**	.064	1

PD = Power Distance, UA = Uncertainty Avoidance, IC = Individualism and Collectivism, MF = Masculinity and Femininity, RT = Relational Transparency, BP = Balanced Processing, M*P* = Moral-ethical Perspectives, SA = Self-Awareness, Nc = Nursing Care,

VN = Value base nursing care, MTC = Contributing to a Holistic View of the Patients Medical and Technical Care, C*p* = Care Pedagogies, DL = Development Leadership and Organization of Nursing Care, DA = Documents and Administration, WR = Work-Related Factors, PR = Person-Related Factors,PI = Physical Intimidation Factors, AA = Anxiety, DD = Somatization, SS = Depression, EE = Emotional Exhaustion, D*P* = Depersonalization, PA = Personal Accomplishment

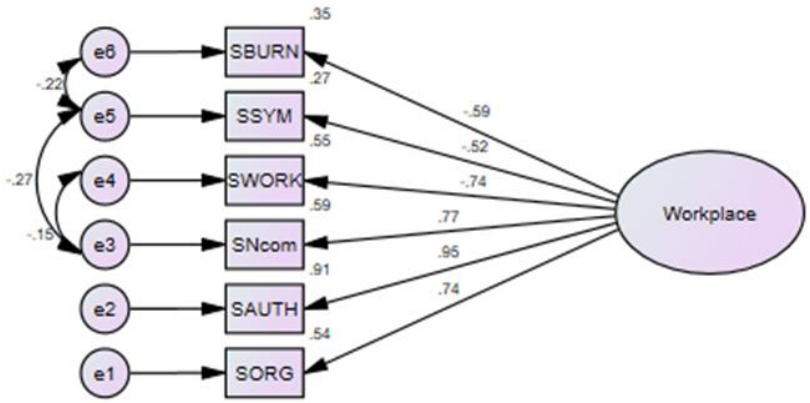
Principal analysis

The analysis with AMOS comprises measurement model assessment and structural model assessment as described below.

Measurement model assessment

The measurement models were examined for the construct validity of the measurement (Schumacker & Lomax, 2010; Hair et al., 2010). The measurement model was evaluated by using confirmatory factor analysis [CFA].

In this study, six constructs (organizational culture, authentic leadership, nursing competence, workplace bullying, burn-out and symptom experience) were assessed for their measurement model by using CFA. The chi-square ($\chi 2$) was used to assess the statistical fit of the measurement models. The indices used to measure the measure the descriptive fit of models were the minimum chi-square value [CMIN], CMIN/ degrees of freedom (df), goodness-of-fit index [GFI], comparative fit index [CFI], adjusted goodness-of-fit index [AGFI], and root square error of approximation [RMSEA] (Schumacker & Lomax, 2010; Hair et al., 2010; Kline, 2011). The criteria for the indices of goodness-of-fit were a non-significant value of $\chi 2$ ($p > 0.05$) with values ranging from less than 2.0 for CMIN/ degrees of freedom (df), values below 0.05 for RMSEA and values exceeding 0.95 for CFI, GFI, and AGFI; (Hair et al., 2010; Schumacker & Lomax, 2010; Tabachnick et al., 2007). Furthermore, the factor loadings between the construct and each indicator were concerned; the standardized factor loadings were accepted with a t-value of more than 1.96 indicating a significance level of 0.05 ($p < 0.05$), a t-value of more than 2.58 indicating a significance level of 0.01 ($p < 0.01$), and a t-value of more than 3.29 indicating a significance level of 0.001 ($p < 0.001$) (Hair et al., 2010).

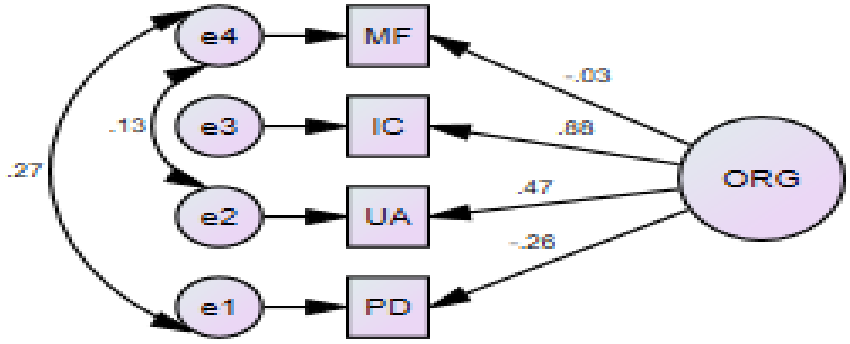


p = 0.067, χ^2 = 11.784, df = 6, χ^2/df = 1.964, GFI = 0.987, RMR = 0.003, CFI = 0.993, RMSEA = 0.058

Figure 4-1 Standardize factor loading and measurement errors for the measurement model of all workplace bullying

Measurement model of all workplace bullying

Workplace bullying had six indicators composed of SORG, SAUTH, SNcom, SWORK, SSYM and SBURN. The model of workplace bullying had a construct validity and fit with the empirical data at p = 0.067. Six-factor loading had statistical significance at p < .001 with the value of standard factor loading ranging from -0.52 to 0.95. Support had maximum values of standard factors at .95 and commitment had minimum values of standard factor loading at -0.52. The six indicators had standard factor loading that was greater than .30, which is an acceptable level (Kim & Whitely, 1978). Therefore, the six indicators were suitable indicators of workplace bullying.

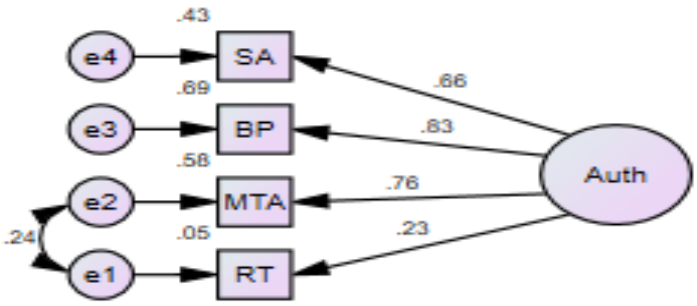


p = 0.602, χ^2 = .272, df = 1, χ^2/ df = .272, GFI = 1.000, RMR = 0.002, CFI = 1.000, RMSEA = 0.000

Figure 4-2 Standardize factor loading and measurement errors for the measurement model of organization culture

Measurement model of organizational culture

Organization culture had four indicators composed of PD, UA, IC and MF. The model of organization culture had a construct validity and fit with the empirical data at p = 0.602. Four factor loading had statistical significance set at p < .001, the value of standard factor loading ranged from -0.26 to 0.88. Support had maximum values of standard factor at .88 and commitment had minimum values of standard factor loading at -0.26. The four indicators had standard factor loading that was greater than .30 which is an acceptable level (Kim & Whitely, 1978). Therefore, the four indicators were suitable indicators of organization culture.

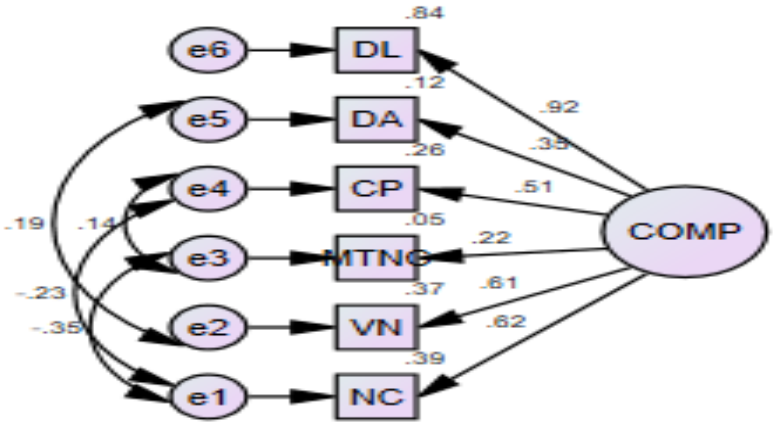


P = 0.385, χ^2 = 0.756, df = 1, χ^2/df = 0.756, GFI = 0.999, RMR = 0.002, CFI = 1.000, RMSEA = 0.000

Figure 4-3 Standardize factor loading and measurement errors for the measurement model of authentic leadership

Measurement model of authentic leadership

Authentic leadership had four indicators composed of RT, MTA, BP and SA. The model of authentic leadership had a construct validity and fit with the empirical data at p = 0.385. Four factor loading had statistical significance at p < .001 with the value of standard factor loading ranging from 0.23 to 0.83. Support had maximum values of standard factors at .83, and commitment had minimum values of standard factor loading at 0.23. The four indicators had standard factor loading that was greater than .30, which is an acceptable level (Kim & Whitely, 1978). Therefore, the four indicators were suitable indicators of authentic leadership.

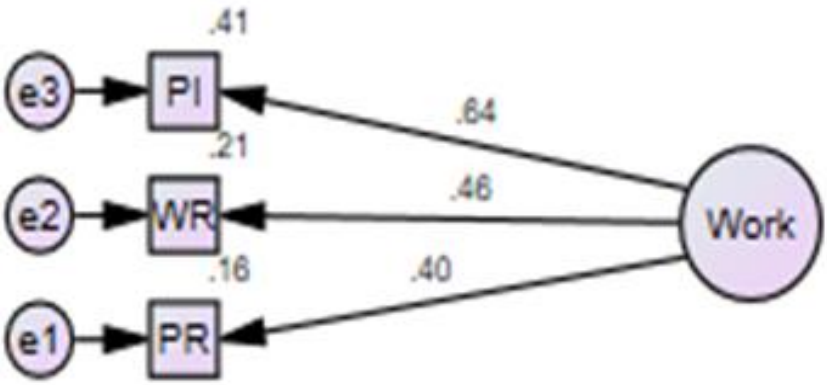


p = 0.061, χ^2 = 10.555, df = 5, χ^2/df = 2.111, GFI = 0.988, RMR = 0.018, CFI = 0.986, RMSEA = 0.062

Figure 4-4 Standardize factor loading and measurement errors for the measurement model of nursing competence

Measurement model of nursing competence

Nursing competence had six indicators composed of NC, VN, MTN, CP, DA and DL. The model of nursing competence had a construct validity and fit with the empirical data at p = 0.061. Six factor loading had statistical significance at p < .001 with the value of standard factor loading ranging from 0.22 to 0.92. Support had maximum values of standard factors at .92, and commitment had minimum values of standard factor loading at 0.22. This six indicators had standard factor loading that was greater than .30, which is an acceptable level (Kim & Whitely, 1978). Therefore, the six indicators were suitable indicators of nursing competence.

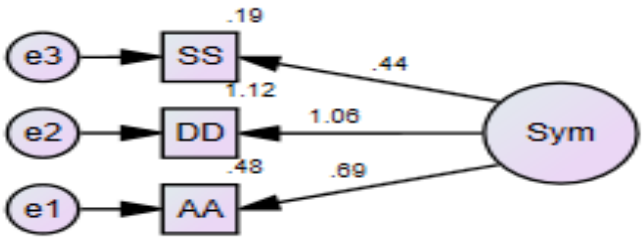


p = 1.000, χ^2 = 0.000, df = 2, χ^2/df = 0.000, GFI = 1.000, RMR = 0.000, CFI = 1.000, RMSEA = 0.000

Figure 4-5 Standardize factor loading and measurement errors for the Measurement model of workplace bullying

Measurement model of workplace bullying

Workplace bullying had three indicators composed of PR, WR and PI. The model of workplace bullying had a construct validity and fit with the empirical data at p = 1.000. Three factor loading had statistical significance at p < .001, the value of standard factor loading from 0.40 to 0.64. Support had maximum values of standard factor at .64, and commitment had minimum values of standard factor loading at 0.40. The three indicators had standard factor loading that was greater than .30, which is an acceptable level (Kim & Whitely, 1978). Therefore, the three indicators were suitable indicators of workplace bullying.



P = 0.999, χ^2 = 0.000, df = 1, χ^2/df = 0.000, GFI = 1.000, RMR = 0.000, CFI = 1.000, RMSEA = 0.000

Figure 4-6 Standardize factor loading and measurement errors for the measurement model of Symptom experience

Measurement model of symptom experience

Symptom experience had three indicators composed of AA, DD and SS. The model of symptom experience had a construct validity and fit with the empirical data at p = 1.000. Three factor loading had statistical significance at p < .001 with the value of standard factor loading ranging from 0.44 to 1.06. Support had maximum values of standard factor at 1.06, and commitment had minimum values of standard factor loading at 0.44. Three of those indicators had standard factor loading that was greater than .30, which is an acceptable level (Kim & Whitely, 1978). Therefore, the three indicators were suitable indicators of Symptom experience.

p = 0.998, χ^2 = 0.000, df = 1, χ^2/df = 0.000, GFI = 1.000, RMR = 0.000, CFI = 1.000, RMSEA = 0.000

Figure 4-7 Standardize factor loading and measurement errors for the measurement model of burn out

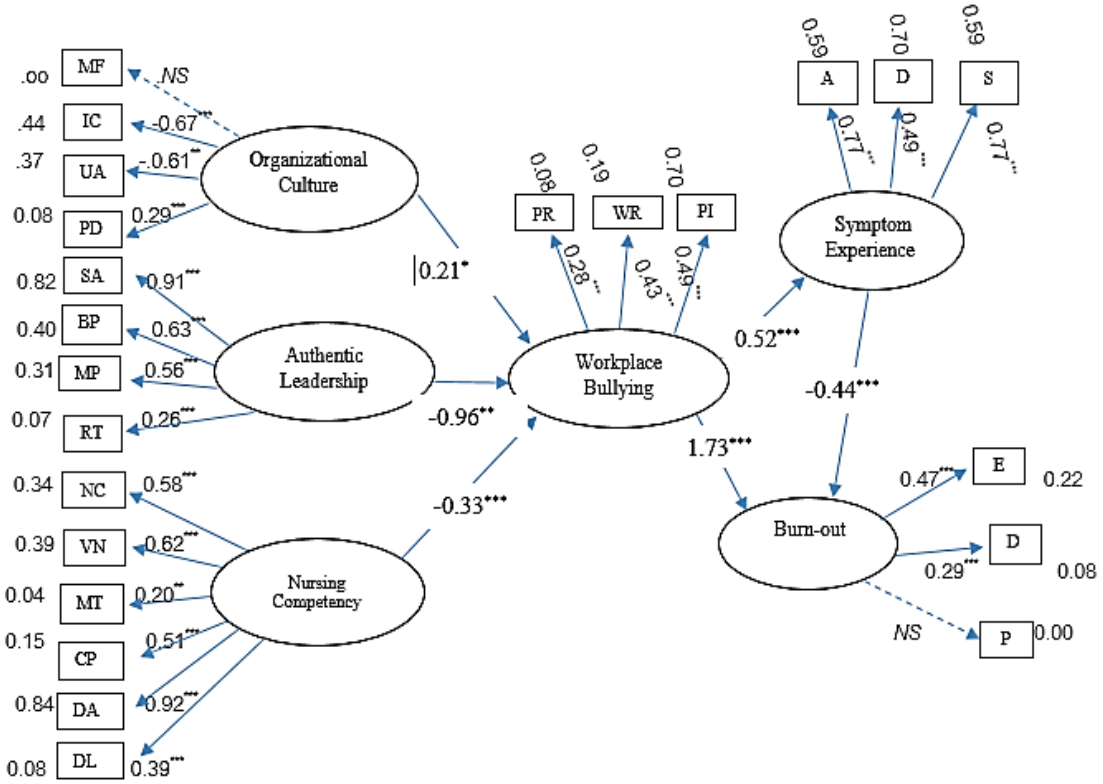
Measurement model of burn out

Burn out had three indicators composed of EE, DP, and PA. The model of burn out had a construct validity and fit with the empirical data at p = 1.000. Three factor loading had statistical significance at p < .001 with the value of standard factor loading ranging from 0.28 to 0.99. Support had maximum values of standard factor at 0.99, and commitment had minimum values of standard factor loading at 0.28. The three indicators had standard factor loading that was greater than .30, which is an acceptable level (Kim & Whitely, 1978). Therefore, the three indicators were suitable indicators of burn out.

Assessment the structural model fit

Step 1 Testing the hypothesized model: The hypothesized model consisted of three exogenous latent variable, organizational culture, authentic leadership, nursing competence and three endogenous latent variables, including workplace bullying, burn-out and symptom experiance. Validation of a hypothesized model fit should be assessed by a variety of fit indices. Model-fit indices determine the degree to which the sample variance-covariance data fits the structural equation model (Schumacker & Lomax, 2010; Hair et al., 2010; Hu & Bentler, 1998). Several goodness-of-fit indicators were provided by the AMOS. In this study, the minimum

chi-square value [CMIN], CMIN/ degrees of freedom (df), adjusted goodness-of-fit index [AGFI], goodness-of-fit index [GFI], comparative fit index [CFI], and root square error of approximation [RMSEA] were used to validate the hypothesized models (Hair et al., 2010; Kline, 2011). Chi-square was the statistically based measure of goodness-of-fit indices in the SEM analysis. The acceptance values indicate that a minimum chi-square value [CMIN] should be non-significant ($p > .05$) (Hair et al., 2010; Tabachnick & Fidell, 2007). The criterion of CMIN/ degrees of freedom (df) for acceptance varies, ranging from less than 2.0 (Hair et al., 2010; Hu & Bentler, 1998; Tabachnick & Fidell, 2007) and to less than 5.0 indicating a reasonable fit (Wheaton, Muthen, Alwin & Summers, 1977; Schumacker & Lomax, 2010). The AGFI and GFI should be between 0.90 and 1.00 (Hair et al., 2010; Hu & Bentler, 1998). In the comparative fit index [CFI], a cut off criterion of CFI was greater than 0.90, which was accepted for the level of model fit (Blunch, 2013; Hooper, Caughlan, & Mullen, 2008) and ≥ 0.95 was presented as a good fit model (Hu & Bentler, 1998). The interpretation of RMSEA value is often considered at following levels: 0 = perfect fit; < 0.05 = close fit; 0.05 to 0.08 = fair fit; 0.08 to 0.10 = moderate fit and > 0.10 = poor fit (Blunch, 2013; Hooper et al., 2008; Hu & Bentler, 1998). According to the measures of the overall model fit index, the results of the hypothesized model showed that CMIN was 2068.808 (p = .000, df = 224), CMIN/ df = 9.236, GFI = 0.623, AGFI = 0.0.535, CFI = 0.471 and RMSEA = 0.169. As a result, the hypothesized model did not fit the empirical data as shown in Figure 4-5 and Table 4-8.

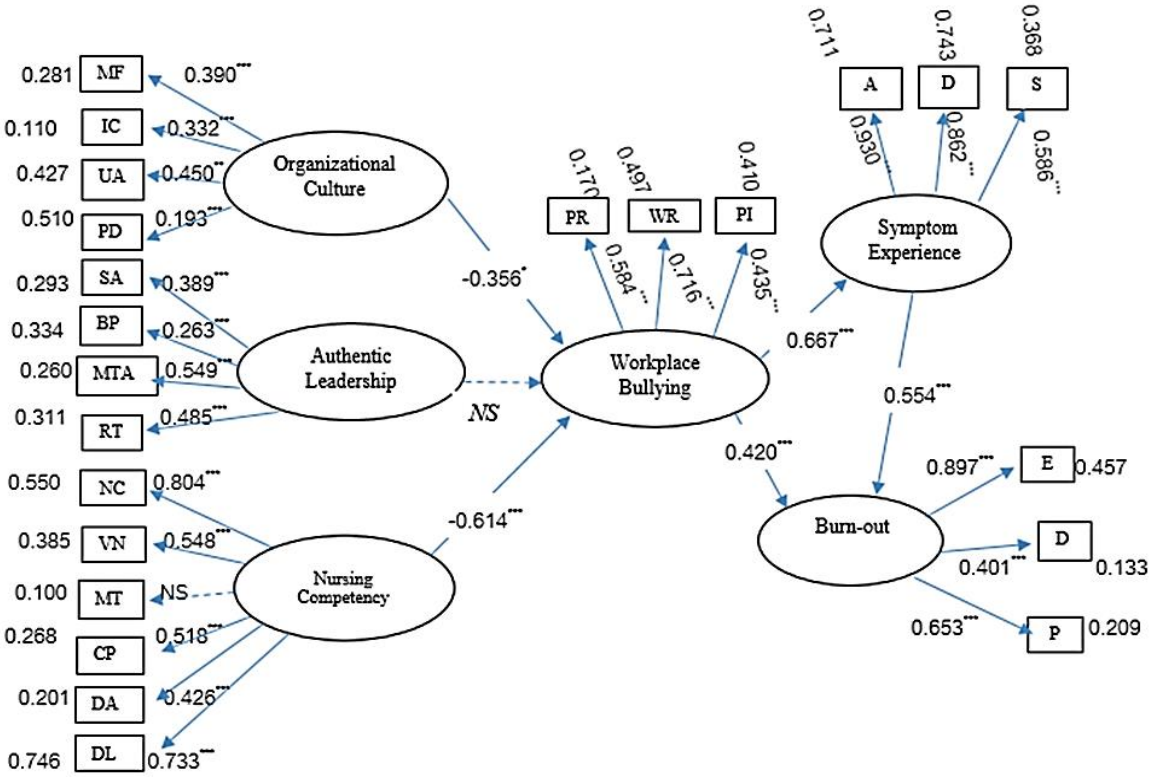


χ^2 = 2068.808, p = 0.000, df = 224, χ^2/df = 9.236, GFI = 0.623, AGFI = 0.535, CFI = 0.471, RMSEA = 0.169, NS = non-significant, *p < .05, **p < .01, ***p < .001

Figure 4-8 The hypothesized model antecedent and consequences of workplace bullying among Thai senior RNs

Step 2 - Model modification: additionally, the hypothesized model did not fit the data. The model modification [MI] was used to improve the model fit by examining the MI indices based on the results of the analysis and considering the recommendation to adjust the parameters in the model, then considering the index model based on the data analysis (Blunch, 2013; Shumacker & Lomax, 2010). Model trimming was used by deleting two parameter estimates with non-significant paths in the hypothesized model. Consequently, the hypothesized model was modified more than 10 times by modification indices until the criteria for model goodness-of-fit was met (Kline, 2011). Finally, the modified model was tested until the model

accomplished significant goodness-of-fit coefficients and specified parameters as shown in Figure 4-9. The overall model of fit indexes for the modified model denoted that χ^2 = 159.006, p = 0.096, df = 137, χ^2/ df = 1.161, GFI = 0.956, AGFI = 0.912, CFI = 0.993, RMSEA = 0.024. Therefore, the modified model had a validation index of adequacy of the model at acceptable levels.



χ^2 = 159.006, p = 0.096, df = 137, χ^2/ df = 1.161, GFI = 0.956, AGFI = 0.912, CFI = 0.993, RMSEA = 0.024, NS = non-significant, *p < .05, **p < .01, ***p < .001

Figure 4-9 The modified model of antecedent and consequences of workplace bullying among Thai senior RNs

Table 4-15 Direct, indirect, and total effects of the modified model (n = 288)

Causal variable	Workplace bullying			Symptom experience			Burn-out		
	DE	IE	TE	DE	IE	TE	DE	IE	TE
Nursing Competency	-0.614***	-	-0.614***	-	-0.410***	-0.410***	-	-0.485***	-0.485***
Authentic Leadership	-0.124	-	-0.124	-	-0.083	-0.083	-	-0.098	-0.098
Organizational Culture	-0.356*	-	-0.356*	-	-0.237***	-0.237***	-	-0.281***	-0.281***
Workplace Bullying	-	-	-	0.667***	-	0.667***	0.420***	0.369***	0.790***
Symptom Experience	-	-	-	-	-	0.000	0.554***	-	0.554***

* = $p < .05$,** = $p < .01$, *** = $p < .001$,

Note DE = direct effect, IE = indirect effect, TE = total effect

Summary of the findings

Nursing competence and organizational culture have a direct negative influence on workplace bullying. The magnitude of the effect was 0.614 and 0.356, respectively.

Nursing competence has a direct negative influence on symptom experience through workplace bullying; the influence size is 0.410.

Nursing competence has a direct negative influence on burn-out through workplace bullying; the influence size is 0.258.

Organizational culture has an indirect influence on burn-out through workplace bullying; the influence size is 0.150.

Organizational culture has a negative indirect influence on the symptom experience through workplace bullying; the influence size is 0.237.

Workplace bullying has a direct positive influence on symptom experience; the influence size is 0.667.

Workplace bullying has a direct positive influence on burn-out; the influence size is 0.420.

Workplace bullying has a positive indirect influence on burn-out through symptom experience; the influence size is 0.370.

Symptom experience has a direct positive influence on burn-out; the influence size is 0.554.

Table 4-16 Statistics of the model fit index between the hypothesized model and the modified model (n = 288)

Model fit criterion	Acceptable score	Hypothesized model	Modified model
CMIN	$p > .05$	2068.808 p = 0.000 (df = 224)	159.006 p = 0.096 (df = 137)
CMIN/df	< 2	9.236	1.161
GFI	0.90-1.00	0.625	0.956
AGFI	0.90-1.00	0.535	0.912
RMSEA	< 0.05	0.169	0.024

Hypotheses testing

In this study, five hypotheses were tested as follows:

Hypothesis one: Organizational culture has a negative direct effect on workplace bullying.

The parameter estimate of organizational culture had a positive direct effect on workplace bullying in the hypothesized model (β = 0.21, $p < .05$) and the modified model (β = -0.356, $p < .05$). Therefore, the findings support this hypothesis.

Hypothesis two: Authentic leadership has a negative direct effect on workplace bullying.

The parameter estimate of authentic leadership had a negative direct effect on workplace bullying in the hypothesized model (β = -0.96, $p < .01$), but the modified model was not significant. Therefore, the findings do not support this hypothesis. **Hypothesis three**: Nursing competence has a negative direct effect on workplace bullying.

The parameter estimate of nursing competence had a negative direct effect on workplace bullying in the hypothesized model (β = -0.33, $p < .001$), and the modified model (β = -0.641, $p < .05$). Therefore, the findings support this hypothesis.

Hypothesis four: Workplace bullying has a positive direct effect on symptom experience and burn-out.

The path coefficient between workplace bullying had a positive direct effect on symptom experience in the hypothesized model (β = 0.59, $p < .001$) and the modified model (β = 0.667, $p < .001$). Therefore, the findings support this hypothesis.

The path coefficient between workplace bullying had a positive direct effect on burn-out in the hypothesized model (β = 1.73, $p < .001$) and the modified model (β = 0.42, $p < .001$). Therefore, the study findings support this hypothesis.

Hypothesis five: Symptom experience has a positive direct effect on burn-out**.** The path coefficient between symptom experience had a negative direct effect on burn-out in the hypothesized model (β = -0.44, $p < .001$), and the modified model (β = 0.554, $p < .001$). Therefore, the findings support this hypothesis.

Summary

The results of perceived workplace bullying among senior RNs and testing of the causal relationship model between senior RNs'perception of the antecedent of workplace bullying as organizational culture, authentic leadership, nursing competence and consequences of workplace bullying as symptom experience and burn-out. Descriptive statistics indicated the characteristics of the senior RNs. Descriptions of six major variables, namely organizational culture, authentic leadership, nursing competence, workplace bullying, symptom experience and burn-out, are described. The outlier, linearity and multicollinearity of all variables were tested in the preliminary analyses and found acceptable regarding the assumptions for the multiple regression statistics used. According to the findings, the hypothesized model did not fit the empirical data. Therefore, the model was modified until the goodness-of-fit index indicated a goodness-of-fit level. In the final modification mode, the results demonstrated that the model fit the empirical data (χ^2 = 159.006,

p = 0.096, df = 137, χ^2/df = 1.161, GFI = 0.956, AGFI = 0.912, CFI = 0.993, RMSEA = 0.024).

CHAPTER 5
CONCLUSION AND DISCUSSION

This chapter presents a summary and discussion of the study findings. It also includes strengths, limitations, suggestions and recommendations.

Summary of the study

The purpose of this study was to examine perceptions of workplace bullying among senior RNs and to test a causal relationship model between senior RNs' perceptions of the antecedent of workplace bullying (organizational culture, authentic leader, nursing competence) and consequences of workplace bullying (burn-out and symptom experience). A multi-stage sampling technique was used to recruit a sample of senior RNs aged more than 40 years. The sample of senior RNs worked in tertiary hospitals under the Ministry of Public Health, Thailand. A total of 288 RNs were selected from eight randomly sampled hospitals drawn from four geographic regions in Thailand. The questionnaires included demographic/ personal information, OCQ, ALQ, NCP, NAQ-R, MBI and BSI-18. The Cronbach's alpha for OCQ, ALQ, NCP, NAQ-R, MBI and BSI-18 were .73, .90, .98, .95, .87 and. 95, respectively.

According to the findings, the majority of the participants were females (97.92%) with ages ranging from 40-44 years (44.79%). Furthermore, 13.89 percent of the nurses worked in the surgical department, while 70.49 percent of the nurses worked at the professional level and 88.54 percent of the nurses had graduated with bachelor degrees. More than half the nurses (86.46%) had not experienced bullying, while some of the senior nurses (13.54%, $n = 39$) had experienced bullying, and other nurses indicated they had experienced some form of bullying within the past six months. Leymann (1990) suggested that, to meet the criteria for bullying, negative acts need to occur on a weekly basis over a period of at least six months. Moreover, Einarsen and Hoel (2001) and Einarsen et al., (2003) suggested that bullying can be more frequent (up to twice weekly), often beginning as a work-related conflict progressing to negative acts more frequently committed than those surfacing as subtle and indiscrete then escalating to more overt, aggressive acts.

The second highest-rated negative acts the participants experienced on a weekly basis included being exposed to an unmanageable workload (6.25%), and spreading of gossip and rumors about them (0.69%). Daily negative acts the participants experienced were concerned with being ordered to do work below their level of competence (0.35%).

The tested model found that the initial hypothesized model did not fit the data. Model trimming was required until the final model met the goodness-of-fit criteria.

The tested model showed that organizational culture, authentic leadership and nursing competence had a negative direct effect on workplace bullying, thereby explaining 98.2 percent of the variance in workplace bullying (R^2 = .982). Workplace bullying had a positive direct effect on symptom experience explaining 44.5 percent of the variance in symptom experience (R^2 = .445). Finally, workplace bullying and symptom experience had a negative indirect effect on burn-out, thereby explaining 79 percent of the variance of burn-out ($R^{2\,=}$ .794).

Discussion of the findings

The findings are discussed based on the conceptual framework. The two objectives of the study were to explore the perceptions of workplace bullying among senior RNs in Thailand and to test a causal relationship model between the perceptions of senior RNs in Thailand about the antecedents of workplace bullying, namely nursing competence, authentic leadership, organizational culture and consequences of workplace bullying comprising symptom experience and burn-out.

1. Perception of workplace bullying among senior Thai RNs.

The first objective of this study was to explore the perceptions of workplace bullying by senior Thai RNs. The proportion of participants (13.54%, n = 39) who indicated that they had experienced some form of bullying within the previous six months was higher among senior Thai RNs than that reported elsewhere, possibly because some senior Thai RNs perceive workplace bullying from their colleagues as a process of an organizational culture, authentic leadership, nursing competence, expectations for an unmanageable workload, ordered to do work below their level of

competence and the spreading of gossip and rumors. The prevalence of workplace bullying in nurses is more widespread than among other health professionals (Jahner, 2011). The prevalence of WPB behaviors against nurses has been estimated to range from 27.3 to 31% for twice weekly incidents and 21.3% for daily incidents (Berry et al., 2012; Johnson & Rae, 2009; Simons, 2008), whereby 82.6 percent of nurses have reported experience as victims of workplace bullying (Nwaneri et al., 2016) and 32.4 % are exposed to WPB behaviors at least twice weekly (Berry, 2015). In the U.S.A., 85 % of nurses reported workplace bullying in a statewide survey (Nwaneri et al., 2016, Phelps & Wilson, 2013) In Iran, 22% of nurses have occasionally been bullied, and 69 percent have never been exposed to these behaviors during the last year (Esfahani & Shahbazi, 2014). According to a study in the United Kingdom (U.K), the prevalence of workplace bullying is 43% (Carter et al., 2013). In addition, 15.1-23.0% of Korean nurses revealed bullying (Han et al., 2014; Lee et al., 2013). In Hong Kong, the prevalence of nurse bullying has been reported at 39.2% (Cheung & Yip, 2017).

2. Antecedent of workplace bullying

Organizational antecedents of workplace bullying

Organizational culture

The first hypothesis was supported by the findings in that the estimated parameters of organizational culture have a negative direct effect on workplace bullying. The parameter estimate of organizational culture had a positive direct effect on workplace bullying in the hypothesized model ($\beta = 0.21$, $p < .05$) and the modified model ($\beta = -0.356$, $p < .05$). Therefore, the study findings support this hypothesis.

Many surveys refer to specific organizational problems related to bullying, including poor conflict management and work organization (Leymann, 1996), hectic and competitive organizational environment (Salin, 2003) stressful working environment (Hauge et al., 2007; Hoel et al., 2010) and communication (Vartia, 1996). The role of organizational culture in preventing and responding to bullying may be key to eliminating workplace bullying. As such, educational programs, institutional policies and legislative actions that help to avoid undesirable organizational cultures (bullying-promoting) would be required (Hutchinson et al., 2008).

The findings from this study show nursing organizational culture to be among the factors most strongly associated with workplace bullying (Yuseon & Kang, 2018). Over the last 20 years, a number of studies have been conducted on the individual and organizational antecedents of bullying (Hoel & Salin, 2003; Salin, 2003; Zapf & Einarsen, 2003). The main findings have been concerned with the organizational antecedents, which are under management control to a greater extent than other types. Nurses' experience with workplace bullying, depending on their work environment and organizational culture as the strict hierarchical organizational atmosphere and authoritative climates justifying workplace bullying (Hutchinson et al., 2008).

Hutchinson et al. (2010) refers to organizational tolerance, reward and informal alliances, the bullying antecedents of which directly reflect an organization's culture or atmosphere. Recent evidence suggests that more pro-social organizational cultures (those more relationship-oriented) are less likely to manifest workplace bullying (Tambur & Vadi, 2012). A relationship-oriented organizational culture stresses the flexibility of the organization and focuses on human relationships. Related to the model of influencing factors and consequences of workplace bullying among nurses through structural equation modeling, observed the significant direct effect of relationship-oriented organizational culture had on workplace bullying. Relationship-oriented organizational cultures have a negative direct effect on workplace bullying ($\beta = -.48$, $p < .001$) explaining 24.0 percent of the variability in workplace bullying (Yuseon & Kang, 2018).

In Asian studies, a multivariate logistic regression analysis revealed that the odds of becoming a victim of bullying were 2.58 times as high among nurses in a hierarchy-oriented culture as among nurses in a relation-oriented culture [95% confidence interval (1.12, 5.94)]. The results suggest that the types of nursing organizational culture are related to workplace bullying in Korean nurses. Pilch and Turska (2015) noted that minimal research exists on how organizational culture relates to bullying development. Organizational culture allows levels of disrespect in the daily atmosphere in the workplace (Hofstede, 2015). Yuseon and Kang, (2018) studied the relationship between organizational culture and workplace bullying among Korean nurses and found the relationship between organizational culture and

workplace bullying to determine the relationship between the different organizational culture types and workplace bullying. In the present study, all significant variables were included as covariates in the univariate analyses. There was no problem with multicollinearity for the regression model, because the variance inflation factors of all independent variables, including organizational culture, were between 1.18 and 3.27 ($p < .006$).

The alarming fact that 300 nurses in the UK had committed suicide in the past seven years was recently highlighted in the press. Family members of nurses who had taken their own lives placed some of the blame on a "bullying and toxic culture" in health services. The shadow health secretary for labour called on the government to launch an urgent inquiry into these figures. The Royal College of Nursing [RCN] also reacted. "Nursing staff experience high levels of stress, a shortage of colleagues and long working hours," stated Dame Donna Kinnair, chief executive and general secretary of the RCN. "Our members repeatedly say their employers ignore or disregard mental health issues. They feel they should cope." She also called on the government to take note of the statistics and respond. (Paton & Cur, 2019)

Authentic leadership

The second hypothesis was supported by the findings in that the estimated parameters of authentic leadership have a negative direct effect on workplace bullying. The parameter estimate of authentic leadership had a negative direct effect on workplace bullying in the hypothesized model ($\beta = -0.96$, $p < .01$) but the relationship was not significant after the modified model. Therefore, these findings do not support this hypothesis.

The conceptual framework of the present study was based on the Bullying at Work Model developed by Einersen et al. (2003). This study explains the antecedents of the framework propose that workplace bullying is a complex and dynamic process that involves organization and individual antecedents. Organizational antecedents of bullying are related to the changing nature of work, work organization, organizational culture and climate and leadership, all of which are related to the quality of leadership behavior as the main causes of workplace bullying (Einarsen et al., 2003), but concerns no specific style of leadership. And the literature review were found that leadership has many different styles influencing workplace bullying. Authentic

leadership [AL] is newer to the list of leadership styles (Avolio & Gardner, 2005), while most studies have been conducted in Registered nurses and new nurses with few or no studies of registered senior nurses.

Individual antecedents of workplace bullying

Nursing competence

The three hypotheses were supported by the findings in that the estimated parameters of nursing competence have a negative direct effect on workplace bullying. The estimated parameters of nursing competence had a negative direct effect on workplace bullying in the hypothesized model ($\beta = -0.33$, $p < .001$) and the modified model ($\beta = -0.614$, $p < .05$). Therefore, the findings support this hypothesis.

Obeidat et al., (2018) studied the relationships between perceived competence and perceived workplace bullying among Registered nurses in a cross sectional survey finding relationships between perceived workplace bullying and perceived competence ($r = -0.407$). This study revealed that perceived competence is a significant influencing factor on perceived workplace bullying and the most significant predictor of bullying in the regression model among all other independent predictors. To our knowledge, this study is the first to provide quantitative support for the impact of perceived competence on perceived workplace bullying among Registered nurses. Lack of competency among nurses was identified as a trigger for disruptive behaviors in the workplace, including bullying (Walrath et al., 2010). Similarly, several studies have reported that junior nurses with less competent skills are more likely to experience workplace bullying by their seniors than more experienced, competent nurses (Ekici & Beder, 2014; Ovayolu et al., 2014; Yıldırım, 2009). On the other hand, feelings of competence could create a feeling of perceived fulfillment and higher self-esteem among nurses, which may inhibit their experience with workplace bullying and/ or influence their perceptions of that experience (Fornés et al., 2011).

Trépanier et al. (2013) studied workplace bullying and psychological health at work concerning the mediating role of satisfied needs for autonomy, competence and relatedness. The results of a study conducted among 1,179 nurses in Quebec, Canada, provide support for the model. Workplace bullying negatively predicted

work engagement through employees' unsatisfied needs for autonomy, competence (r = -0.3) and relatedness. Workplace bullying was also found to positively predict burn-out through a lack of satisfaction of employees' need for autonomy. Invariance analysis also confirmed the robustness of the model across gender and job status. Implications for workplace bullying research and managerial practices were discussed.

Consequences of workplace bullying

Symptom experience and burn-out

The fourth hypothesis was supported by the findings that the estimated parameters of workplace bullying have a positive direct effect on symptom experience and burn-out. The path coefficient between workplace bullying had a positive direct effect on symptom experience in the hypothesized model ($\beta = 0.59$, $p < .001$) and the modified model ($\beta = 0.667$, $p < .001$). The path coefficient between workplace bullying had a positive direct effect on burn-out in the hypothesized model ($\beta = 1.73$, $p < .001$) and the modified model ($\beta = 0.420$, $p < .001$). Therefore, the study findings supported this hypothesis.

The findings from this study show that workplace bullying influences symptom experience and burn-out. The findings revealed that workplace bullying is positively correlated with symptom experience and burn-out for senior RNs. The findings are congruent with those reported in multiple studies. Duru et al. (2018) studied the effects of perceived workplace bullying on psychological symptoms in a structural equation approach and found levels of perceived workplace bullying to increase with higher scores for the BSI and BSI sub-dimensions of anxiety, depression, self-negativity, somatization and hostility (all $p < 0.001$). A one-point increase in the workplace bullying perception score was associated with a 0.47 point increase in psychological symptoms evaluated by BSI. Moreover, the workplace bullying perception scores were most strongly affected by the scores of anxiety, negative self-image, depression, hostility and somatization (all $p < 0.05$). (r = .0.536). A study by Kozáková, Bužgová, and Zeleníková (2018) found a total of 14.3% of nurses to have been subjected to bullying in the previous six months. Regarding

the psychological consequences of bullying, there were statistically significant associations between bullying and sadness (r = 0.411), depression (r = 0.355) and anxiety (r = 0.327). Yuseon and Kang (2018) conducted a study on the influencing factors and consequences of workplace bullying among nurses in a structural equation modeling, finding workplace bullying to have direct (b = .36) and total (b = .51) effects on symptom experience and indirect effects (b = .15) on symptom experience through PsyCap.

Workplace bullying causes symptom experience or exhaustion and eventually increases nurses' turnover intention (Hutchinson et al., 2010; Laschinger et al., 2012). According to a study by Sounart (2008), up to 90 percent of nurses have witnessed or been the targets of WPB, and some experts fear this trend could push more nurses out of the clinical setting. According to Reknes et al. (2016), workplace bullying among nurses is the main predictive factor for psychological health outcomes, including anxiety, depression and fatigue. Workplace bullying can be considered a serious stressor. Specifically, when an individual has concluded that she/he cannot manage the persistent stressful situation of bullying, maladaptive responses ensue in the form of physical and psychological symptoms (Read & Laschinger, 2015; Reknes et al., 2014).

Several studies have linked exposure to workplace bullying with burn-out (Bowling & Beehr, 2006; Laschinger & Fida, 2014). Extensive research has been done to indicate that burn-out is a problem for healthcare workers, particularly nurses. According to Giorgi et al. (2015), who studied bullying among nurses and its relationship with burn-out, workplace bullying was found to be associated with burn-out (β = 0.47). The current findings are also related to the study of Allen et al. (2015) who examined the relationship between bullying and burn-out, finding bullying to be a significant cause of nburn-out (β = 0.37, p < .001). However, workplace bullying and nurse manager ability, leadership and support of nurses also had direct effects on burn-out (Kay, 2015). According to the present findings, workplace bullying is significantly related to all components of burn-out. Burn-out is the result of prolonged exposure to negative demands in the workplace (Maslach & Leiter, 2008). In addition, Laschinger and Fida (2014) found correlations among all of the variables considered. According to the findings, AL is significantly and negatively

correlated with workplace bullying r = -.37 and significantly correlated with burn-out as well.

Limitation

This study had some limitations that should be acknowledged. First, the participants were recruited from senior RNs aged over 40 years, because nurses of all ages have a chance to be bullied in the workplace. Therefore, future studies should cover every age of nurses. Second, the research design was cross-sectional. Therefore, interpretation of a causal relationship must be considered with caution.

Implications

1. Implications for nursing administration

Organizational culture has a strong negative correlation with workplace bullying. The findings from this study suggest that nurse managers or health care administrators should raise staff awareness of organizational culture as a negative behavior leading to bullying in the workplace. Additionally, a good organizational culture should be established to build staff pride of work and feeling rewarded for a job well done with trust and support when collaboration and teamwork are required and expected. Nurse administrators should provide evidence for developing strategies targeting workplace bullying interventions and prevention. Furthermore, policies related to workplace bullying should be developed based on this model. Leaders can help set policy and shape organizational culture. Thus, nurse administrators can set appropriate policy and standards for nurses in the hospital to provide support for the organization culture and nursing competence to minimize, prevent or possibly eradicate the occurrence of workplace bullying altogether. For example, nurses can encourage nursing managers, who are responsible for the care of all nurses in the hospital, have nursing competence to establish strategies and create effective programs such as programs for the development of organizational culture and nursing competence.

2. Implications for nursing education

Nursing education departments in hospital systems should consider using the results from this study to design human source development programs and in-service education programs for all staff by addressing workplace bullying. Leaders in healthcare organizations should advocate for extensive unit, hospital and system resources to raise awareness about workplace bullying and methods for countering its effects and extinguishing negative behaviors.

Recommendations for future research

The findings from this study provide a guide for future research as follows:

1. As studies of workplace bullying in nursing continue, maintaining the use of instruments of workplace bullying and theoretical frameworks that are the same or similar would contribute to building a strong body of evidence to form best practice. In addition, larger sample size and across age of nurses are needed.
2. The findings suggest the need of further research develop nursing intervention strategy to raise awareness and alleviate the issue of workplace bullying by integrating a set of predictors in this study.

REFERENCES

Ahliquist, E., & Riehl, G. (2013). *Managing lateral violence and its impact on the team: Nurses and students*. Retrieved from https://www.slideshare.net/griehl/ managing- lateral-violence-and-its-impact-on-the-team-nurses-and-students-final.

Aiken, L. H., Cimiotti, J. P., Sloane, D. M., Smith, H. L., Flynn, L., & Neff, D. F. (2012). Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Journal of Nursing Administration, 42*(10 Suppl), S10-S16.

Aiken, L. H., Sloane, D. M., Bruyneel, L., Van den Heede, K., Griffiths, P., & Busse, R. (2014). Nurse staffing and education and hospital mortality in nine European countries: A retrospective observational study. *Lancet, 383*(9931), 1824-1830.

Aiken, L. H., Sloane, D., Griffiths, P., Rafferty, A. M., Bruyneel, L., & McHugh, M., (2017). Nursing skill mix in European hospitals: Cross-sectional study of the association with mortality, patient ratings, and quality of care. *British Medical Journal Quality & Safety, 26*(7), 559-568.

Akamine, I., Uza, M., Shinjo, M., & Nakamori, E. (2013). Development of competence scale for senior clinical nurses. *Japan Journal of Nursing Science, 10*(1), 55-67. doi: 10.1111/j.1742-7924.2012.00210.x

Aleassa, H. M., & Megdadi, O. D. (2014). Workplace bullying and unethical behaviors: A mediating model. *International Journal of Business and Management, 9*(3), 157-169.

Alexander, M. F., & Runciman P. J. (2003). *ICN framework of competencies for the generalist nurse: Report of the development process and consultation.* Geneva: International Council of Nurses.

Allen, B. C., Holland, P., & Reynolds, R. (2015). The effect of bullying on burnout in nurses: The moderating role of psychological detachment. *Journal of Advanced Nursing, 71*(2), 381-390.

Altman, B. (2010). Workplace bullying: Application of Novak's (1998) learning theory and implications for training. *Employee Responsibilities & Rights Journal, 22*(1), 21-32. doi: 10.1007/s10672-009-9121-7

Alvesson, M. (2015). Organizational culture and work. In S. Edgell, H. Gottfried, & E. Granter (Eds.), *The SAGE handbook of the sociology of work and employment* (pp. 262-282). London: SAGE. doi: 10.4135/9781473915206.n15

An, Y., & Kang, J. (2016). Relationship between organizational culture and workplace bullying among Korean nurses. *Asian Nursing Research, 10*(3), 234-239.

Andrew, S., Gregory, L., Cowin, L. S., Eagar, S. C., Hengstberger-Sims, C., & Rolley, J. (2008). Psychometric properties of the Australian nurse competency 2000 standards. *International Journal of Nursing Studies, 45*(10), 1512-1515. doi: 10.1016/j.ijnurstu.2007.10.008

Apisakkul, E. (2006). *Finding of relationship between organizational culture and business ethics.* Retrieved from https://utcc-dspacecris.eval.plus/handle/6626976254/657

Arcangeli, G., Giorgi, G., Ferrero, C., Mucci, N., & Cupelli, V. (2014). Prevalence of workplace bullying in a population of nurses at three Italian hospitals. *Giornale Italiano di Medicina del Lavoro ed Ergonomia, 36*(3), 181-185.

Arora, A., Arora, A. S., & Sivakumar, K. (2016). Relationships among supply chain strategies, organizational performance, and technological and market turbulences. *The International Journal of Logistics Management, 27*(1), 206-232.

Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly, 16*(3), 315-338.

Baramee, J. (2003). *Professional competence of Thai nursing graduates*. Doctoral dissertation, School of Nursing, Faculty of the Graduate School, University of Colorado.

Beech, B., & Leather, P. (2006). Workplace violence in the health care sector: A review of staff training and integration of training evaluation models. *Aggression and Violent Behavior, 11*(1), 27-43.

Benner, P. (1984). *From novice to expert*. Menlo Park, CA: Addison-Wesley.

Berry, P. A., Gillespie, G. L., Gates, D., & Schafer, J. (2012). Novice nurse productivity following workplace bullying. *Journal of Nursing Scholarship, 44*(1), 80-87.

Berry, P. A. (2015). *Workplace bullying: Exploring the prevalence, impact, and consequences to nurses.* Doctoral dissertation, Science in Nursing, College of Nursing, University of Cincinnati.

Björkqvist, K., Österman, K., & Hjelt-Bäck, M. (1994). Aggression among university employees. *Aggressive Behavior, 20*(3), 173-184.

Blunch, N. (2012). *Introduction to structural equation modeling using IBM SPSS statistics and AMOS.* Thousand Oaks, CA: Sage.

Blunch, N. J. (2013). *Introduction to structural equation modeling using IBM SPSS statistics and AMOS* (2nd ed.). Los Angeles: Sage.

Bowling, N. A., & Beehr, T. A. (2006). Workplace harassment from the victim's perspective: Theoretical model and meta-analysis. *Journal of Applied Psychology, 91*(5), 998-1002.

Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology, 1*(3), 185-216.

Bureau of Health Policy and Strategy, Ministry of Public Health. (2010). *Human resources for health country profile Thailand.* Bangkok: Regional office for South-East Asia, World Health Organization.

Cahú, T. B., Santos, S. D., Mendes, A., Córdula, C. R., Chavante, S. F., Carvalho, Jr. L. B., & Bezerra, R. S. (2012). Recovery of protein, chitin, carotenoids and glycosaminoglycans from Pacific white shrimp (Litopenaeus vannamei) processing waste. *Process Biochemistry, 47*(4), 570-577.

Cahú, G. R. P., Leite, A. I. T., Nóbrega, M. M. L. D., Fernandes, M. D. G. M., Costa, K. N. D. F. M., & Costa, S. F. G. D. (2012). Acoso moral: Análisis de concepto en la perspectiva evolucionista de Rodgers. *Acta Paulista de Enfermagem, 25*(4), 555-559.

Cameron, K. S., Dutton, J. E., & Quinn, R. E. (2003). An introduction to positive organizational scholarship. *Positive Organizational Scholarship, 3*(13), 1-21.

Carter, M., Thompson, N., Crampton, P., Morrow, G., Burford, B., Gray, C., & Illing, J. (2013). Workplace bullying in the UK NHS: A questionnaire and interview study on prevalence, impact and barriers to reporting. *British Medical Journal Open, 3*(6), 1-12. doi: 10.1136/bmjopen-2013-002628

Cheung, T., & Yip, P. S. (2017). Workplace violence towards nurses in Hong Kong: Prevalence and correlates. *BioMed Central Public Health, 17*(1), 196-206.

Clay, C. (2014). Letter to the editor: In response to 'Bullying and the older nurse'. *Journal of Nursing Management, 22*(2), 268-268.

Corney, B. (2008). Aggression in the workplace: A study of horizontal violence utilizing Heideggerian hermeneutic phenomenology. *Journal of Health Organization and Management, 22*(2), 164-177. Doi: 10.1108/147772 60810876321

Cowin, L. S., Hengstberger-Sims, C., Eagar, S. C., Gregory, L., Andrew, S., & Rolley, J. (2008). Competency measurements: Testing convergent validity for two measures. *Journal of Advanced Nursing, 64*(3), 272-277. doi: 10.1111/j.1365-2648.2008.04774.x

Davidson, E. S. (2017). *Presence of authentic leadership and bullying in the nursing workplace: A correlational study University of Arkansas for Medical Sciences.* Doctoral dissertation, Science in Nursing, College of Nursing, Walden University.

Dellasega, C., & Volpe, R. L. (2013). *Toxic nursing: Managing bullying, bad attitudes, and total turmoil.* Indianapolis: Sigma Theta Tau International.

Derogatis, L. R., & Melisaratos, N. (1983). The brief symptom inventory: An introductory report. *Psychological Medicine, 13*(3), 595-605.

Derogatis, L. R. (2000). *BSI 18, brief symptom Inventory 18: Administration, scoring, and procedures manual.* Minneapolis: NCS Pearson.

Devonish, D., & Devonish, D. (2017). Dangers of workplace bullying: Evidence from the Caribbean. *Journal of Aggression, Conflict and Peace Research, 9*(1), 69-80. doi: 10.1108/JACPR-05-2016-0228

Diestel, S., Cosmar, M., & Schmidt, K. H. (2013). Burnout and impaired cognitive functioning: The role of executive control in the performance of cognitive tasks. *Work & Stress, 27*(2), 164-180.

Discenza, D. C. (2018). *The relationship between an employee's personality characteristics and being targeted by a workplace bull*. Doctor of Philosophy, General counselor education and supervision, Harold Abel School of Social and Behavioral Sciences, Capella University.

Ditmer, D. (2010). A safe environment for nurses and patients: Halting horizontal violence. *Journal of Nursing Regulation*, *1*(3), 9-14.

Duffy, M., & Sperry, L. (2011). *Mobbing: Causes, consequences, and solutions*. Oxford: Oxford University Press.

Duignan, P. A., & Bhindi, N. (1997). Authenticity in leadership: An emerging perspective. *Journal of Educational Administration, 35*(3), 195-209.

Dumont, C., Meisinger, S., Whitacre, M. J., & Corbin, G. (2012). Nursing 2012 horizontal violence survey report. *Nursing 2018, 42*(1), 44-49.

Dunn, S. (2003). *What's going on with mobbing, bullying and work harassment internationally*. Bellingham, WA: Workplace Bullying Institute.

Duru, P., Ocaktan, M. E., Çelen, Ü., & Örsal, Ö. (2018). The effect of workplace bullying perception on psychological symptoms: A structural equation approach. *Safety and Health at Work, 9*(2), 210-215.

Dychtwald, K., Erickson, T. J., & Morison, R. (2006). *Workforce crisis: How to beat the coming shortage of skills and talent.* Boston: Harvard Business School.

Ekici, D., & Beder, A. (2014). The effects of workplace bullying on physicians and nurses. *Australian Journal of Advanced Nursing, 31*(4), 24-33.

Einarsen, S. (2000). Harassment and bullying at work: A review of the Scandinavian approach. *Aggression and violent behavior, 5*(4), 379-401.

Einarsen, S. (2005). *The nature, causes and consequences of bullying at work: The Norwegian experience.* Retrieved from https://journals.openedition.org /pistes/3156

Einarsen, S., Hoel, H., & Cooper, C. (2003). *Bullying and emotional abuse in the workplace: International perspectives in research and practice*. London: Taylor & Francis.

Einarsen, S., Hoel, H., Zapf, D., Diestel, S., Cosmar, M., & Schmidt, K. H. (2013). Burnout and impaired cognitive functioning: The role of executive control in the performance of cognitive tasks. *Work & Stress*, *27*(2), 164-180.

Einarsen, S., & Hoel, H. (2001). The negative acts questionnaire: Development, validation and revision of a measure of bullying at work. Oral presented at *the 10th European Congress on Work and Organizational Psychology*. Retrieved from https://www.tandfonline.com/doi/abs/10.1080/ 02678370902815673

Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the negative acts questionnaire-revised. *Work & Stress*, *23*(1), 24-44.

Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2011). The concept of bullying and harassment at work: The European tradition. In S. Einarsen (Ed.), *Bullying and harassment in the workplace: Developments in theory, research, and practice* (pp. 3-40). Boca Raton, FL: Taylor and Francis.

Einarsen, S., & Raknes, B. I. (1991). *Bullying at work: Epidemiological findings in public and private*. Bergen: Institutt for samfunnspsykologi, Universitetet i Bergen.

Einarsen, S., & Raknes, B. I. (1997). Harassment in the workplace and the victimization of men. *Violence and Victims*, *12*(3), 247-263.

Einarsen, S., & Skogstad, A. (1996). Bullying at work: Epidemiological findings in public and private organizations. *European Journal of Work and Organizational Psychology*, *5*(2), 185-201.

Ekici, D., & Beder, A. (2014). The effects of workplace bullying on physicians and nurses. *Australian Journal of Advanced Nursing, 31(*4), 24-33.

Esfahani, A. N., & Shahbazi, G. (2014). Workplace bullying in nursing: The case of Azerbaijan province, Iran. *Iranian Journal of Nursing and Midwifery Research, 19*(4), 409-415.

Estryn-Behar, M., Van der Heijden, B. I. J. M., Oginska, H., Camerino, D., Le Nezet, O., & Conway, P. M. (2007). The impact of social work environment, teamwork characteristics, burnout, and personal factors upon intent to leave among European nurses. *Medical Care Journal, 45*, 939-950. doi: 10.1097/MLR.0b013e31806728d8

Etienne, E. (2014). Exploring workplace bullying in nursing. *Workplace Health & Safety, 62*(1), 6-11.

Falk, A.-C., Alm, A., & Lindström, V. (2014). Has increased nursing competence in the ambulance services impacted on pre-hospital assessment and interventions in severe traumatic brain-injured patients? *Scandinavian Journal of Trauma, Resuscitation & Emergency Medicine, 22*(1), 1-5.

Fleming, V., & Holmes, A. (2005). *Basic nursing and midwifery education programmes in Europe: A report to the World Health Organization Regional Office for Europe*. Glasgow: Caledonian University.

Felblinger, D. M. (2008). Incivility and bullying in the workplace and nurses' shame responses. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 37*(2), 234-242.

Fida, R., Laschinger, H. K. S., & Leiter, M. P. (2018). The protective role of self-efficacy against workplace incivility and burnout in nursing: A time-lagged study. *Health Care Management Review, 43*(1), 21-29.

Fornés, J., Cardoso, M., Castelló, J. M., & Gili, M. (2011). Psychological harassment in the nursing workplace: An observational study. *Archives of Psychiatric Nursing, 25*(3), 185-194.

Friedrich, L. A., Prasun, M. A., Henderson, L., & Taft, L. (2011). Being a seasoned nurse in active practice. *Journal of Nursing Management, 19*, 897-905.

Freire, P. (1970). *Pedagogy of the oppressed*. New York: Continuum.

Fukada, M. (2018). Nursing competency: Definition, structure and development. *Yonago Acta Medica, 61*(1), 1-7.

Gabrielle, S., Jackson, D., & Mannix, J. (2008). Adjusting to personal and organizational change: Views and experiences of female nurses aged 40-60 years. *Collegian, 15*(3), 85-91.

Giorgi, G., Leon-Perez, J. M., & Arenas, A. (2015). Are bullying behaviors tolerated in some cultures? Evidence for a curvilinear relationship between workplace bullying and job satisfaction among Italian workers. *Journal of Business Ethics, 131*(1), 227-237.

Giorgi, G. (2012). Workplace bullying in academia creates a negative work environment. An Italian study. *Employee Responsibilities and Rights Journal, 24*(4), 261-275.

Giorgi, G., Mancuso, S., Fiz Perez, F., Castiello D'Antonio, A., Mucci, N., Cupelli, V., & Arcangeli, G. (2016). Bullying among nurses and its relationship with burnout and organizational climate. *International Journal of Nursing Practice, 22*(2), 160-168.

Giorgi, G., Perminienė, M., Montani, F., Fiz-Perez, J., Mucci, N., & Arcangeli, G. (2016). Detrimental effects of workplace bullying: Impediment of self-management competence via psychological distress. *Frontiers in Psychology, 7*, 60-72.

Greenglass, E. R., & Burke, R. J. (2001). Stress and the effects of hospital restructuring in nurses. *Canadian Journal of Nursing Research, 33*, 93-108.

Griffin, M. (2004). Teaching cognitive rehearsal as a shield for lateral violence: An intervention for newly licensed nurses. *The Journal of Continuing Education in Nursing, 35*(6), 257-264.

Guillaume, O., & Austin, A. (2016). Understanding organizational culture to transform a workplace behavior: Evidence from a liberal arts university. *Scholedge International Journal of Management & Development, 3*(4), 89-96. doi: 10.19085/journal.sijmd030401

Guimarães, L. A. M., & Rimoli, A. O. (2006). "Mobbing" (assédio psicológico) no trabalho: Uma síndrome psicossocial multidimensional. *Psicologia: Teoria e Pesquisa, 22*(2), 183-191.

Han, M. R., Gu, J. A., & Yoo, I. Y. (2014). Influence of workplace bullying and leader-member exchange on turnover intention among nurses. *Journal of Korean Academy of Nursing Administration, 20*(4), 383-393.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2012). Partial least squares: The better approach to structural equation modeling?. *Long Range Planning, 45*(5-6), 312-319.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: Global edition* (7th ed.). New Jersey: Pearson Prentice Hall.

Hauge, L. J., Skogstad, A., & Einarsen, S. (2007). Relationships between stressful work environments and bullying: Results of a large representative study. *Work & Stress, 21*(3), 220-242.

Hauge, L. J., Skogstad, A., & Einarsen, S. (2009). Individual and situational predictors of workplace bullying: Why do perpetrators engage in the bullying of others?. *Work & Stress, 23*(4), 349-358.

Henderson, J. E., & Hoy, W. K. (1983). Leader authenticity: The development and test of an operational measure. *Educational & Psychological Research, 3*(2), 63-75.

Hickson, J. (2013). New nurses' perceptions of hostility and job satisfaction: Magnet versus non-magnet. *The Journal of Nursing Administration, 43*(5), 293-301.

Hinchberger, P. A. (2009). Violence against female student nurses in the workplace. *Nursing Forum, 44*(1), 37-46. doi: 10.1111/j.1744-6198.2009.00125.

Hoel, H., & Cooper, C. L. (2000). *Destructive conflict and bullying at work.* Manchester: Manchester School of Management, UMIST.

Hoel, H., Glasø, L., Hetland, J., Cooper, C. L., & Einarsen, S. (2010). Leadership styles as predictors of self-reported and observed workplace bullying. *British Journal of Management, 21*(2), 453-468.

Hoel, H., & Salin, D. (2003). Organizational antecedents of workplace bullying. In Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. (Eds.), *Bullying and emotional abuse in the workplace* (pp. 203-218). London: Taylor and Francis.

Hofstede, G. (1989). Organising for cultural diversity. *European Management Journal, 7*(4), 390-397.

Hofstede, G. (2011). *National cultural dimensions.* Retrieved from http://geerthofstede.com/national-culture.html

Hofstede, G. J. (2015). Culture's causes: The next challenge. *Cross Cultural Management, 22*(4), 545-569. doi: 10.1108/CCM-03-2015-0040

Hofstede, G. H. (1980). *Culture's consequences: International differences in workrelated values.* Beverly Hills: Sage.

Hooper, D., Caughlan, J., & Mullen, M. (2008). Structural equation modeling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods, 6*(1), 53-60.

Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods, 3*(4), 424-453.

Hutchinson, M., Vickers, M., Jackson, D., & Wilkes, L. (2006). Workplace bullying in nursing: towards a more critical organisational perspective. *Nursing Inquiry, 13*(2), 118-126.

Hutchinson, N. L. (2013). *Inclusion of exceptional learners in Canadian schools: A practical handbook for teachers.* Toronto: Pearson Education Canada.

Hutchinson, M., & Jackson, D. (2015). The construction and legitimation of workplace bullying in the public sector: Insight into power dynamics and organizational failures in health and social care. *Nursing Inquiry, 22*(1), 13-26.

Hutchinson, M., Jackson, D., Wilkes, L., & Vickers, M. H. (2008). A new model of bullying in the nursing workplace: Organizational characteristics as critical antecedents. *Advances in Nursing Science, 31*(2), E60-E71.

Hutchinson, M., Wilkes, L., Jackson, D., & Vickers, M. H. (2010). Integrating individual, work group and organizational factors: Testing a multidimensional model of bullying in the nursing workplace. *Journal of Nursing Management, 18*(2), 173-181.

International Council of Nurses [ICN]. (1997). *ICN Framework of disaster nursing competenciens*. Retrieved from http://www.cives-toscana.it/wp-content/uploads/2017/12/disaster_nursing_competencies_liteicn-min.pdf

International Council of Nurses. [ICN] (2008). *Nursing care continuum framework and competencies.* Retrieved from https://siga-fsia.ch/files/user_upload/07_ ICN_Nursing_Care_Continuum_Framework_and_Competencies.pdf

Jaafar, M., Jalali, A., & Dahalan, N. (2017). An exploratory study on the relationship between the personal factors of the perpetrator and workplace bullying. *Jurnal Pengurusan (UKM Journal of Management)*, *49*, 67-76.

Jacoba, L. (2005) Nurse against nurse: How to stop horizontal violence. *Nursing, 35*(3), 44-45.

Jahner, J. (2011). *Building bridges: An inquiry into horizontal hostility in nursing culture and the use of contemplative practices to facilitate cultural change*. Retrieved from https://www.upaya.org/uploads/pdfs/Jahnersthesis.pdf

Johnson, S. E. (2016). *Organizational characteristics influencing workplace bullying.* Retrieved from https://scholarworks.waldenu.edu/cgi/viewcontent. cgi?referer = &httpsredir = 1&article = 4141&context = dissertations

Johnson, S. L. (2009). International perspectives on workplace bullying among nurses: A review. *International Nursing Review, 56*(1), 34-40.

Johnson, S. L., & Rea, R. E. (2009). Workplace bullying: Concerns for nurse leaders. *Journal of Nursing Administration*, *39*(2), 84-90.

Joint Commission Resources, Inc. (2008). *Advanced lean thinking: Proven methods to reduce waste and improve quality in health care*. Illinois: Joint Commission Resources.

Joint Commission. (2008). *Sentinel event alert: Behaviors that undermine a culture of safety.* Retrieved from http://www.jointcommission.org/assets/1/18/ SEA_40.PDF

Kamchuchat, C., Chongsuvivatwong, V., Oncheunjit, S., Yip, T. W., & Sangthong, R. (2008). Workplace violence directed at nursing staff at a general hospital in southern Thailand. *Journal of Occupational Health*, *50*(2), 201-207.

Karabulut, A. T. (2016). Bullying: harmful and hidden behavior in organizations. *Procedia-Social and Behavioral Sciences, 229*, 4-11.

Kay, R. E. (2015). *Professional and team identity buffer effects of workplace environment and bullying on burnout in nurses*. Retrieved fromhttps://indigo.uic.edu/articles/Professional_and_Team_Identity_Buffer_Effects_of_Workplace_Environment_and_Bullying_on_Burnout_in_Nurses/10882421/files/19383878.pdf

Keashly, L. (2001). Interpersonal and systemic aspects of emotional abuse at work: The target's perspective. *Violence and Victims, 16*(3), 233-268.

Kelloway, E. K., Nielsen, K., & Dimoff, J. K. (2017). *Leading to occupational health and safety: How leadership behaviours impact organizational safety and wellbeing.* Beverley Hills: John Wiley & Sons.

Kendall-Gallagher, D., & Blegen, M. A. (2009). Competence and certification of registered nurses and safety of patients in intensive care units. *American Journal of Critical Care, 18*(2), 106-113.

Kim, D. C., & Kim, D. G. (2012). The relationship among main factors of the positive organizational behavior: Focusing on authentic leadership, psychological capital and psychological ownership. *Korean Public Administration Revise, 46*(4), 27-51.

Kim, J. O., & Whitely, D. M. (1978). *Factor analysis: Statistical methods and practical issues.* Beverley Hills: Sage.

Kline, R. (2011). Convergence of structural equation modeling and multilevel modeling. In Williams, M., & Vogt, W. P. *The SAGE handbook of innovation in social research methods* (pp. 562-589). London: Sage. doi: 10.4135/9781446268261

Kozáková, R., Bužgová, R., & Zeleníková, R. (2018). Mobbing of nurses: Prevalence, forms and psychological consequences in the Moravian-Silesian region. *International Journal of Mental Health Nursing, 62*(4), 316-329.

Laschinger, H., Borgogni, L., Consiglio, C., & Read, E. (2015). The effects of authentic leadership, six areas of worklife, and occupational coping self-efficacy on new graduate nurses' burnout and mental health: A cross- sectional study. *International Journal of Nursing Studies, 52*, 1080-1089. doi: 10.1016/j.ijnurstu.2015.03.002

Laschinger, H. K. S. (2012). Job and career satisfaction and turnover intentions of newly graduated urses. *Journal of Nursing Management, 20*, 472-484.

Laschinger, H. K. S. (2014). Impact of workplace mistreatment on patient safety risk and nurse-assessed patient outcomes. *Journal of Nursing Administration*, *44*(5), 284-290.

Laschinger, H. K. S., & Fida, R. (2014). A time-lagged analysis of the effect of authentic leadership on workplace bullying, burnout, and occupational turnover intentions. *European Journal of Work and Organizational Psychology, 23*(5), 739-753.

Laschinger, H. K. S., & Grau, A. L. (2012). The influence of personal dispositional factors and organizational resources workplace violence, burnout, and health outcomes in new graduate nurses: A cross-sectional study. *International Journal of Nursing Studies, 49*(3), 282-291.

Laschinger, H. K. S., Grau, A. L., Finegan, J., & Wilk, P. (2010). New graduate nurses' experiences of bullying and burnout in hospital settings. *Journal of Advanced Nursing, 66*(12), 2732-2742.

Laschinger, H. K. S., & Nosnko, A. (2015). Exposure to workplace bullying and post-traumatic stress disorder symptomology: The role of protective psychological resources. *Journal of Nursing Management, 23*(2), 252-262.

Laschinger, H. K. S., Wong, C. A., & Grau, A. L. (2012). The influence of authentic leadership on newly graduated nurses' experiences of workplace bullying, burnout and retention outcomes: A cross-sectional study. *International Journal of Nursing Studies, 49*(10), 1266-1276.

Laschinger, H. K. S., Wong, C. A., & Grau, A. L. (2013). Authentic leadership, empowerment and burnout: a comparison in new graduates and experienced nurses. *Journal of Nursing Management, 21,* 541-552.

Lee, Y., Lee, M., & Bernstein, K. (2013). Effect of workplace bullying and job stress on turnover intention in hospital nurses. *Journal of Korean Academy of Psychiatric and Mental Health Nursing, 22*(2), 77-87.

Letvak, S. (2002). Retaining the older nurse. *The Journal of Nursing Administration, 32*(7/8), 387-392.

Lewis, M. A. (2006). Nurse bullying: Organizational considerations in the maintenance and perpetration of health care bullying cultures. *Journal of Nursing Management, 14*(1), 52-58.

Lewis, D., Sheehan, M., & Davies, C. (2008, July). Uncovering workplace bullying. *Journal of Workplace Rights, 13*(3), 281-301. doi: 10.2190/WR.13.3e

Leymann, H. (1990). Mobbing and psychological terror at workplaces. *Violence and Victims, 5*(2), 119-126.

Leymann, H. (1992). *Leymann inventory of psychological terror.* Violen: Karlskrona.

Leymann, H. (1996) The content and development of mobbing at work. *European Journal of Work and Organizational Psychology, 5*, 165-184.

Li, Y. C., & Wang, H. H. (2016). *The influences of authentic leadership in nursing: A systematic reviews.* Retrieved from https://sigma.nursingrepository.org/handle/10755/601655

Lim, S., Cortina, L. M., & Magley, V. J. (2008) Personal and workgroup incivility: Impact on work and health outcomes. *Journal of Applied Psychology, 93*, 95-107.

Liu, M., Kunaiktikul, W., Senaratana, W., Tonmukayakul, O., & Eriksen, L. (2007). Development of competence inventory for registered nurses in the people's republic of China: Scale development. *International Journal of Nursing Studies, 44*(5), 805-813.

Liu, M., Yin, L., Ma, E., Lo, S., & Zeng, L. (2009). Competency inventory for registered nurses in Macao: Instrument validation. *Journal of Advanced Nursing, 65*(4), 893-900.

Liu, Y., & Aungsuroch, Y. (2018). Current literature review of registered nurses' competency in the global community. *Journal of Nursing Scholarship, 50*(2), 191-199.

Longo, J. (2013). Bullying and the older nurse. *Journal of Nursing Management, 21*(7), 950-955.

Lutgen-Sandvik, P., Tracy, S. J., & Alberts, J. K. (2007). Burned by bullying in the American workplace: Prevalence, perception, degree, and impact. *Journal of Management Studies,* 44, 837-862.

Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 23*(6), 695-706.

Luthans, F., & Avolio, B. (2003). Authentic leadership development. In K.S. Cameron, S. E. Dutton, & R. E. Quinn. *Positive organizational scholarship-foundations of a new discipline* (pp. 241-258). California: Berrett-Koehler.

Ma, S. C., Wang, H. H., & Chien, T. W. (2017). Hospital nurses' attitudes, negative perceptions, and negative acts regarding workplace bullying. *Annals of General Psychiatry, 16*(1), 33-41.

Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93*(3), 498-512.

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior, 2*(2), 99-113.

Maslach, C., Jackson, S. E., & Inventory, M. B. (1981). *Consulting psychologists.* Palo Alto: The Maslach Burnout Inventory.

Maslach, C., Jackson, S. E., & Leiter, M. (1996). *Maslach burnout inventory* (3rd ed.). Palo Alto: Consulting Psychologists Press.

Matthiesen, S. B., & Einarsen, S. (2010). Bullying in the workplace: Definition, prevalence, antecedents and consequences. *International Journal of Organization Theory & Behavior, 13*(2), 202-248.

McDaniel, K. R., Ngala, F., & Leonard, K. M. (2015). Does competency matter? Competency as a factor in workplace bullying. *Journal of Managerial Psychology, 30*(5), 597-609.

McKenna, B. G., Smith, N. A., Poole, S. J., & Coverdale, J. H. (2003). Horizontal violence: Experiences of registered nurses in their first year of practice. *Journal of Advanced Nursing, 42*(1), 90-96.

Mikkelsen, E. G., & Einarsen, S. (2001). Bullying in Danish work-life: Prevalence and health correlates. *European Journal of Work and Organizational Psychology, 10*(4), 393-413.

Mikkelsen, E. G., & Einarsen, S. (2002). Basic assumptions and symptoms of posttraumatic stress among victims of bullying at work. *Europe Journal Work Organization Psychology, 11*(1), 87-111.

Moayed, F. A., Daraiseh, N., Shell, R., & Salem, S. (2006). Workplace bullying: A systematic review of risk factors and outcomes. *Theoretical Issues in Ergonomics Science, 7*(3), 311-327.

Moseley, A., Jeffers, L., & Paterson, J. (2008). The retention of the older nursing workforce: A literature review exploring factors that influence the retention and turnover of older nurses. *Contemporary Nurse, 30*, 46-56

Moye, M. (2010). *Nursing hostility: What is causing horizontal violence between nurses and what steps can individuals take to bring it to an end?*. Retrieved from http://nursing.advanceweb.com/Features/Articles2/Nursing-Hostility.aspx

Namie, G., Christensen, D., & Phillips, D. (2014). *US workplace bullying survey*. Bellingham, WA: Workplace Bullying Institute.

Nielsen, M. B., Glasø, L., & Einarsen, S. (2017). Exposure to workplace harassment and the five factor model of personality: A meta-analysis. *Personality and Individual Differences, 104*, 195-206.

Nielsen, M. B., & Knardahl, S. (2015). Is workplace bullying related to the personality traits of victims? A two-year prospective study. *Work & Stress, 29*(2), 128-149.

Nilsson, J., Engström, M., Florin, J., Gardulf, A., & Carlsson, M. (2018). A short version of the nurse professional competence scale for measuring nurses' self-reported competence. *Nurse Education Today, 71*, 233-239.

Nilsson, J., Gardulf, A., & Lepp, M. (2016). Process of translation and adaptation of the nurse professional competence (NPC) scale. *Journal of Nursing Education and Practice, 6*(1), 100-103.

Nilsson, J., Johansson, E., Egmar, A. C., Florin, J., Leksell, J., Lepp, M., & Carlsson, M. (2014). Development and validation of a new tool measuring nurses self-reported professional competence: The nurse professional competence (NPC) scale. *Nurse Education Today, 34*(4), 574-580.

Nkosi, Z. Z., & Uys, L. R. (2005). A comparative study of professional competence of nurses who have completed different bridging programmes. *Curationis, 28*(1), 6-12.

Notelaers, G., & Einarsen, S. (2013). The world turns at 33 and 45: Defining simple cutoff scores for the negative acts questionnaire-revised in a representative sample. *European Journal of Work and Organizational Psychology, 22*(6), 670-682.

Numminen, O., Leino-Kilpi, H., Isoaho, H., & Meretoja, R. (2015). Newly graduated nurses' competence and individual and organizational factors: A multivariate analysis. *Journal of Nursing Scholarship, 47*(5), 446-457.

Nwaneri, A. C., Onoka, A. C., & Onoka, C. A. (2016). Workplace bullying among nurses working in tertiary hospitals in Enugu, Southeast Nigeria: Implications for health workers and job performance. *Journal of Nursing Education and Practice, 7*(2), 69-78.

Obeidat, R. F., Qan'ir, Y., & Turaani, H. (2018). The relationship between perceived competence and perceived workplace bullying among registered nurses: A cross sectional survey. *International Journal of Nursing Studies, 88,* 71-78.

Occupational Safety and Health Administration [OSHA]. (2002). *Workplace violence: OSHA fact sheet.* Retrieved from https://www.osha.gov/OshDoc/data_General_Facts/factsheet-workplace-violence.pdf

Olweus, D. (1994). Bullying at school: Basic facts and effects of a school based intervention program. *Journal of Child Psychology and Psychiatry, 35*(7), 1171-1190.

O'Moore, M. (2000). Critical issues for teacher training to counter bullying and victimisation in Ireland. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression, 26*(1), 99-111.

Oh, H., Uhm, D. C., & Yoon, Y. J. (2016). Factors affecting workplace bullying and lateral violence among clinical nurses in Korea: Descriptive study. *Journal of Nursing Management, 24*(3), 327-335.

Ole, V. (2016). *A systematic review: Antecedents of workplace bullying in the health sector in Australia and New Zealand*. Master's thesis, Master of Business, School of Business, Auckland University of Technology.

Occupational Safety and Health Administration [OSHA]. (2002). *Safety and health topics: Permissible exposure limits (PELs).* Retrieved from www.osha-slc.govSLTCpel.

Ovayolu, Ö., Ovayolu, N., & Karadag, G. (2014). Workplace bullying in nursing. *Workplace Health & Safety Journal, 62*(9), 370-374.

Pate, J., & Beaumont, P. (2010). Bullying and harassment: A case of success?. *Employee Relations, 32*(2), 171-183.

Paton, M. (2019). *300 Nurses died by suicide in seven years shows alarming stat*. Retrieved from https://nurseslabs.com/300-nurse-died-by-suicide-in-seven-years-shows-alarming-stat/

Paton, F. (2020). *Nurse burnout: Are you at risk*. Retrieved from https://nurseslabs.com/nurse-burnout-are-you-at-risk/

Pedroso, V. G., Limongi, A. C., Martins, F. A., Hrdlicka, H., Jorge, S. M., & Cornetta, V. K. (2006). Exploring conceptual aspects of mobbing. *Revista de Administração em Saúde, 8*(33), 139-147.

Phelps, C., & Wilson, B. (2013). Horizontal hostility: A threat to patient safety. *JONA's Healthcare Law, Ethics and Regulation, 15*(1), 51-57.

Pilch, I., & Turska, E. (2015). Relationships between Machiavellianism, organizational culture, and workplace bullying: Emotional abuse from the target's and the perpetrator's perspective. *Journal of Business Ethics, 128*(1), 83-93.

Polit, D. F., & Beck, C. T. (2012). *Nursing research: Generating and assessing evidence for nursing practice*. Johanneshov: TPB.

Purpora, C., Blegen, M. A., & Stotts, N. A. (2012). Horizontal violence among hospital staff nurses related to oppressed self or oppressed group. *Journal of Professional Nursing, 28*, 306-314.

Randle, J. (2003). Bullying in the nursing profession. *Journal of Advanced Nursing, 43*, 395-401.

Read, E. A., & Laschinger, H. K. (2015). The influence of authentic leadership and empowerment on nurses' relational social capital, mental health and job satisfaction over the first year of practice. *Journal of Advanced Nursing, 71*(7), 1611-1623.

Read, E., & Laschinger, H. K. (2013). Correlates of new graduate nurses' experiences of workplace mistreatment. *The Journal of Nursing Administration, 43*(4), 221-228.

Reknes, I., Einarsen, S., Paliesen, S., Bjorvatn, B., Moen, B. E., & Magerøy, N. (2016). Exposure to bullying behaviors at work and subsequent symptoms of anxiety: The moderating role of individual coping style. *Industrial Health, 54*(5), 421-432.

Reknes, I., Pallesen, S., Magerøy, N., Moen, B. E., Bjorvatn, B., & Einarsen, S. (2014). Exposure to bullying behaviors as a predictor of mental health problems among Norwegian nurses: Results from the prospective SUSSH-survey. *International Journal of Nursing Studies, 51*(3), 479-487.

Riskin, A., Erez, A., Foulk, T. A., Kugelman, A., Gover, A., Shoris, I., & Bamberger, P. A. (2015). The impact of rudeness on medical team performance: A randomized trial. *Pediatrics, 136*(3), 487-495.

Rosenstein, A. H., & O'Daniel, M. (2008). A survey of the impact of disruptive behaviors and communication defects on patient safety. *The Joint Commission Journal on Quality and Patient Safety, 34*(8), 464-471.

Rueanyod, W. (2014). Workplace violence among nursing personnel in emergency department in Bangkok Thailand. *Royal Thai Airforce Medical Gazette, 60*(1), 1-9.

Sa, L., & Fleming, M. (2008). Bullying, burnout, and mental health amongst Portuguese nurses. *Issues in Mental Health Nursing, 29*(4), 411-426.

Salin, D. (2001). Prevalence and forms of bullying among business professionals: A comparison of two different strategies for measuring bullying. *European Journal of Work and Organizational Psychology, 10*(4), 425-441.

Salin, D. (2003). Ways of explaining workplace bullying: A review of enabling, motivating, and precipitating structures and processes in the work environment. *Human Relations, 56*(10), 1213-1232.

Saimai, W., Thanjira, S., & Phasertsukjinda, N. (2010). Workplace violence and its management by nursing personnel in emergency department. *Ramathibodi Nursing Journal, 16*(1), 121-135

Samnani, A. K., & Singh, P. (2012). 20 years of workplace bullying research: A review of the antecedents and consequences of bullying in the workplace. *Aggression and Violent Behavior, 17*(6), 581-589.

Savaşan, A., & Özgür, G. (2018). The relationship between personality characteristics and workplace bullying of nurses. *Journal of Psychiatric Nursing, 9*(1), 29-35.

Sawaengdee, K. (2017). Crisis of nursing shortage in health service facilities under office of permanent secretary, ministry of public health: Policy recommendations. *Journal of Health Science, 26*(2), 448-456.

Sawaengdee, K. (2009). *Working life table and projection of registered nurses workforce supply in Thailand over the next 15 years (2008-2022).* Bangkok: National Institute of Development Administration.

Schumacker, R. E., & Lomax, R. G. (2010). *A beginner's guide to structural equation modeling* (3rd ed.), New York: Taylor & Francis Group.

Schmidt, K., & Diestel, S. (2013). Job demands and personal resources in their relations to indicators of job strain among nurses for older people. *Journal of Advanced Nursing, 69*(10), 2185-2195. doi.1:10.1111/jan.12082

Schein, E. H. (1990). Organizational culture. *American Psychologist, 45*, 109-119.

Sheehan, M. (1999). Workplace bullying: Responding with some emotional intelligence. *International Journal of Manpower, 20*(1/2), 57-69.

Sikkhaphan, S. (2015). *Authentic and transformational leadership model of directors of tambon health promoting hospital effecting to the effectiveness of southern tambon health promoting hospital: The interaction and invariance tes of gender factor.* Retrieved from http://kb.tsu.ac.th/jspui/bitstream/123456789/3158/1/%E0%B8%AA%E0%B8%B8%E0%B8%A0%E0%B8%B2%E0%B8%9E%20%E0%B8%AA%E0%B8%B4%E0%B8%81%E0%B8%82%E0%B8%B2%E0%B8%9E%E0%B8%B1%E0%B8%99%E0%B8%98%E0%B9%8C%2000194144.pdf

Simons, S. (2008). Workplace bullying experienced by Massachusetts registered nurses and the relationship to intention to leave the organization. *Advances in Nursing Science, 31*(2), 48-59.

Smith, M., Segal, J., & Segal, R. (2012). *Preventing burnout: Signs, symptoms, causes, and coping strategies.* Retrieved from http://www.helpguide.org/mental/burnout_signs_symptoms.htm

Sounart, A. (2008). *Study finds nurses frequently being bullied at work.* Retrieved from http://www.nursezone.com/nursing-news-events/more

Spector, P. E., Zhou, Z. E., & Che, X. X. (2014). Nurse exposure to physical and nonphysical violence, bullying, and sexual harassment: A quantitative review. *International Journal of Nursing Studies, 51*(1), 72-84.

Srisuphan, W., & Sawaengdee, K. (2012). Recommended policy-based solutions to shortage of registered nurses in Thailand. *Thai Journal of Nursing Council, 27*(1), 5-12.

Srisathidnarakur, B. (2007). *Leadership and strategic management in nursing organization in the 21 century.* Bangkok: Chulalongkorn University Publishing.

Strandmark, M., & Hallberg, L. R. M. (2007). The origin of workplace bullying: Experiences from the perspective of bully victims in the public service sector. *Journal of Nursing Management, 15,* 332-341.

Stouten, J., Baillien, E., Van den Broeck, A., Camps, J., De Witte, H., & Euwema, M. (2010). Discouraging bullying: The role of ethical leadership and its effects on the work environment. *Journal of Business Ethics, 95*(1), 17-27.

Summawart, S. (1989). *Burnout among the staff nurses in Ramathibodi hospital.* Master‘s thesis, Nursing, Faculty of Graduate Studies, Mahidol University.

Sungwan, P. (2018). *Workplace bullying among Thai new registered nurses: A causal model of its antecedence and consequences*. Doctoral dissertation, Philosophy in Nursing Science, Faculty of Nursing, Burapha University.

Sungwan, P., Deoisres, W., & Chaimongkol, N. (2017). Perceptions of newly registered Thai nurses about workplace bullying. *Thai Pharmaceutical and Health Science Journal, 12*(3), 101-107.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics analysis* (5th ed.). Boston: Allyn and Bacon.

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics (vol. 5)*. Boston, MA: Pearson.

Takase, M., & Teraoka, S. (2011). Development of the holistic nursing competence scale. *Nursing and Health Sciences, 13*(4), 396-403. doi: 10.1111/j.1442-2018.2011.00631.x

Tambur, M., & Vadi, M. (2012). Workplace bullying and organizational culture in a post-transitional country. *International Journalof Manpower,33*(7), 754-768.

Thai Nursing Council. (2016). *Nursing work report in Thailand* from the committee *conference at November, 11, 2016*. Bangkok: Thai Nursing Council.

The International Council of Nurses [ICN]. (1997). *ICN on regulation: Towards 21st century models*. Geneva: International Council of Nurses.

Thomas, D. C., & Inkson, K. (2009). *Cultural intelligence: Living and working globally*. San Francisco, CA: Berrett-Koehler Publishers.

Thomas, C. M. (2010). Teaching nursing students and newly registered nurses strategies to deal with violent behaviors in the professional practice environment. *The Journal of Continuing Educationin Nursing, 41*(7), 299-308. doi: 10.3928/00220124-20100401-09

Townsend, T. (2015). Not just "eating our young": Workplace bullying strikes experienced nurses, too. *American Nurse Today, 11*(2), 1-6.

Topa Cantisano, G., Depolo, M., & Morales Dominguez, J. F. (2007). Mobbing: A meta-analysis and integrative model of its antecedents and consequences. *Psicothema, 19*(1), 88-94.

Trépanier, S. G., Fernet, C., & Austin, S. (2013). Workplace bullying and psychological health at work: The mediating role of satisfaction of needs for autonomy, competence and relatedness. *Work & Stress, 27*(2), 123-140.

Trépanier, S. G., Fernet, C., Austin, S., & Boudrias, V. (2016). Work environment antecedents of bullying: A review and integrative model applied to registerednurses. *International Journal of Nursing Studies, 55*, 85-97.

Valentine, S., Fleischman, G., & Godkin, L. (2016, August). Villains, victims, and verisimilitudes: An exploratory study of unethical corporate values, bullying experiences, psychopathy, and selling professionals' ethical reasoning. *Journal of Business Ethics, 148,* 135-154.

Vessey, J. A., Demarco, R. F., Gaffney, D. A., & Budin, W. C. (2009). Bullying of staff registered nurses in the workplace: A preliminary study for developing personal and organizational strategies for the transformation of hostile to healthy workplace environments. *Journal of Professional Nursing, 25*(5), 299-306.

Walker, J. M. (2017). *A quantitative study of the prevalence and impact of workplace bullying amongst first responders.* Retrieved from https://search.proquest.com/openview/164e57fb1518c623b2092bf82e3f5e8d/1?pqorigsite=gscholar&cbl=18750&diss=y

Walrath, J. M., Dang, D., & Nyberg, D. (2010). Hospital RNs' experiences with disruptive behavior: A qualitative study. *Journal of Nursing Care Quality, 25*(2), 105-116.

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory- based measure. *Journal of Management, 34*(1), 89-126.

Walumbwa, F. O., Luthans, F., Avey J. B., & Oke, A. (2011). Authentically leading groups: The mediating role of collective psychological capital and trust. *Journal of Organizational Behavior, 32*, 4-24

Walumbwa, F. O., Wang, P., Wang, H., Schaubroeck J., & Avolio, B. J. (2010). Psychological processes linking authentic leadership to follower behaviors. *The Leadership Quarterly, 21*, 901-914.

Wheaton, B., Muthen, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and statability in panel models. *Sociological Methodology, 8*(1), 84-136.

Winders, J. (2018). *Study: Authentic leaders can address workplace bullying.* Retrieved from https://phys.org/news/2018-10-authentic-leaders-workplace-bullying.html

Wilson, B. L., & Phelps, C. (2013). Horizontal hostility: A threat to patient safety. *JONA'S Healthcare Law, Ethics and Regulation, 15*(1), 51-57.

Williams, B. K. (2016). *An Exploration of bullied nurses, witnesses, and a hospital's bottom line.* Retrieved from https://pdfs.semanticscholar.org/1f43/eb28869b41c3b06dd5321bbcb2f1bca1e611.pdf

Wilson, H. B., Kendall, B. E., Fuller, R. A., Milton, D. A., & Possingham, H. P. (2011). Analyzing variability and the rate of decline of migratory shorebirds in Moreton Bay. *Australia.Conservation Biology, 25*(4), 758-766.

Wilson, B. L., & Phelps, C. (2013). Horizontal hostility: A threat to patient safety. *Journal of Nursing Administration's Healthcare Law, Ethics, and Regulation, 15*(1), 51-57.

Wong, C. A., & Giallonardo, L. M. (2013). Authentic leadership and nurse-assessed adverse patient outcomes. *Journal of Nursing Management, 21*(5), 740-752. doi: 10.1111/jonm.12075

World Health Organization [WHO]. (2001). *Nurses and midwives for health: WHO european strategy for nursing and midwifery education.* Retrieved from https://www.euro.who.int/__data/assets/pdf_file/0005/125744/E72918.pdf?ua = 1

World Health Organization [WHO]. (2013). *Workplace violence.* Retrieved from http://www.who.int/violence_injury_prevention/injury/work9/en/

Workplace Bullying Institute. (2011). *Definition of workplace bullying*. Retrieved from http://www.workplacebullying.org/individuals/problem/definition/

Vartia, M. (1996). The sources of bullying–psychological work environment and organizational climate. *European Journal of Work and Organizational Psychology, 5*(2), 203-214.

Yen, C. F. (2010). School bullying and mental health in children and adolescents. Taiwanese. *Journal of Psychiatry (Taipei), 24*(1), 3-13.

Yıldırım, D. (2009). Bullying among nurses and its effects. *International Nursing Review, 56*(4), 504-511.

Yuseon, S., & Kang, J. (2018). Influencing factors and consequences of workplace bullying among nurses: A structural equation modeling. *Asian Nursing Research, 12*(1), 26-33.

Zapf, D. (1999). Organizational, work group related and personal causes of mobbing/bullying at work. *International Journal of Manpower, 20*, 70-85.

Zapf, D., & Einarsen, S. (2003). Individual antecedents of bullying: Victims and perpetrators. In S. E. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace*. International perspectives in research and practice (pp. 165-184). London: Taylor & Francis.

Zapf, D., & Einarsen, S. E. (2005). Mobbing at work: Escalated conflicts in organizations. In S. Fox, & P. E. Spector (Eds.), *Counterproductive workplace behavior: Investigations of actors and targets* (pp. 237-270). Washington, DC: American Psychological Association.

Zapf, D., Escartín, J., Einarsen, S. E., Hoel, H., & Vartia, M. (2011). Empirical findings on prevalence and risk groups of bullying in the workplace. In S. Einarsen, D. Hoel, D. Zapf, & C. Cooper (Eds.), *Bullying and Harassment in the Workplace* (pp. 75-106). London: Taylor and Francis.

Zapf, D., & Gross, C. (2001). Conflict escalation and coping with workplace bullying: A replication and extension. *European Journal of Work and Organizational Psychology, 10*(4), 497-522.

Zeka, L. (2018). *Organizational culture and individuals' experience of workplace bullying*. Retrieved from https://search-proquestcom.contentproxy.phoenix.edu/docview/1984976254?accountid=35812

APPENDICES

APPENDIX A

List of experts

List of experts

1. Dr. Patcharin Sungwan	Faculty of Nursing, Phayao University
2. Assoc.Prof. Dr. Wannee Deoisres	Faculty of Nursing, Burapha University
3. Assoc.Prof. Dr. Pornpat Hengudomsub	Faculty of Nursing, Burapha University
4. Assist. Prof. Dr. Jinjutha Chaisena Dallas	Faculty of Nursing, Burapha University
5. Dr. Nuttapol Yuwanich	Faculty of Nursing, Rungsit University
6. Dr. Sawitree Lakthong	Faculty of Nursing, Burapha University

APPENDIX B

Ethical document

เอกสารชี้แจงผู้เข้าร่วมการวิจัย

การวิจัยเรื่อง การทดสอบเชิงประจักษ์ของแบบจำลองเชิงสาเหตุของการกลั่นแกล้งในสถานที่ทำงานในพยาบาลวิชาชีพอาวุโส

รหัสจริยธรรมการวิจัย 01-06-2562

ชื่อผู้วิจัย นาง เขมิกา เสียงเพราะ

การวิจัยครั้งนี้ทำขึ้น เพื่อสำรวจการรับรู้ของการกลั่นแกล้งในที่ทำงานและทดสอบรูปแบบความสัมพันธ์เชิงสาเหตุระหว่างการรับรู้ของพยาลอาวุโสในประเทศไทย

ท่านได้รับเชิญให้เข้าร่วมการวิจัยครั้งนี้เนื่องจากท่านเป็นกลุ่มตัวอย่างที่มีอายุ 40 ปี หรือ 40 ปีขึ้นไป ซึ่งกำลังทำงานในโรงพยาบาลศูนย์ที่มีขนาดมากกว่า 500 เตียง โดยท่านไม่เคยเจ็บป่วยด้วยโรคร้ายแรงหรือถูกวินิจฉัยเกี่ยวกับปัญหาทางด้านสุขภาพจิตมาก่อนซึ่งระยะเวลาการเก็บข้อมูลในการวิจัยครั้งนี้อยู่ระหว่างเดือน กรกฎาคม ถึง กันยายน 2562

เมื่อท่านเข้าร่วมการวิจัยแล้ว สิ่งที่ท่านจะต้องปฏิบัติ คือ ตอบแบบสอบถามตามความเป็นจริงด้วยตัวของท่านเอง แบบสอบถาม 1 ชุด 7 ตอน คือ 1) ข้อมูลส่วนบุคคล 2) แบบสอบถามการรับรู้วัฒนธรรมองค์กร 3) แบบสอบถามภาวะผู้นำที่แท้จริง 4) แบบสอบถามวัดความความสามารถทางการพยาบาล 5) แบบสอบถามพฤติกรรมอันไม่พึงประสงค์ 6) แบบสอบถามอาการอย่างสั้น – 18 ข้อ 7) แบบสอบถามวัดความเหนื่อยหน่ายซึ่งจะใช้เวลาทั้งสิ้นประมาณ 30-45 นาที

ประโยชน์ของการวิจัยครั้งนี้อาจจะไม่ได้เป็นประโยชน์กับท่านโดยตรง แต่ผลการวิจัยจะเป็นข้อมูลพื้นฐานในการพัฒนาแนวทางการป้องกันการกลั่นแกล้งในพยาบาลอาวุโส

การเข้าร่วมการวิจัยของท่านครั้งนี้เป็นไปด้วยความสมัครใจ ท่านมีสิทธิการเข้าร่วมโครงการวิจัยหรือถอนตัวออกจากโครงการวิจัยได้ตลอดเวลาโดยไม่มีมีผลกระทบใด ๆ ทั้งสิ้น และไม่ต้องแจ้งให้ผู้วิจัยทราบล่วงหน้า ผู้วิจัยจะเก็บรักษาข้อมูลของท่านโดยใช้รหัสตัวเลขแทนการระบุชื่อ ชั้น และสิ่งใด ๆ ที่อาจอ้างอิงหรือทราบได้ว่าข้อมูลนี้เป็นของท่าน ข้อมูลของท่านที่เป็นกระดาษ

แบบสอบถามจะถูกเก็บอย่างมิดชิด และปลอดภัยในตู้เก็บเอกสารและล็อคกุญแจตลอดเวลา สำหรับข้อมูลที่เก็บในคอมพิวเตอร์ของผู้วิจัยจะถูกใส่รหัสผ่าน ข้อมูลที่กล่าวมาทั้งหมดจะมีเพียงผู้วิจัยและอาจารย์ที่ปรึกษาเท่านั้นที่สามารถเข้าถึงข้อมูลได้ ผู้วิจัยจะรายงานผลการวิจัย และการเผยแพร่ผลการวิจัยในภาพรวม โดยไม่ระบุข้อมูลส่วนบุคคลของท่าน ดังนั้นผู้อ่านงานวิจัยจะทราบเฉพาะผลการวิจัยเท่านั้น สุดท้ายหลังจากผลการวิจัยได้รับการตีพิมพ์เผยแพร่ในวารสารเรียบร้อยแล้ว ข้อมูลทั้งหมดจะถูกทำลาย

หากท่านมีปัญหาหรือข้อสงสัยประการใด สามารถสอบถามได้โดยตรงจากผู้วิจัยในวันทำการรวบรวมข้อมูล หรือสามารถติดต่อสอบถามเกี่ยวกับการวิจัยครั้งนี้ได้ตลอดเวลาที่ นาง เขมิกา เสียงเพราะ ผู้วิจัย หมายเลขโทรศัพท์ 0972459524 หรือที่ รศ.ดร. วรรณี เดียวอิศเรศ อาจารย์ที่ปรึกษาหลัก หมายเลขโทรศัพท์ 0829933483

นาง เขมิกา เสียงเพราะ
ผู้วิจัย

หากท่านได้รับการปฏิบัติที่ไม่ตรงตามที่ได้ระบุไว้ในเอกสารชี้แจงนี้ ท่านจะสามารถแจ้งให้ประธานคณะกรรมการพิจารณาจริยธรรมฯ ทราบได้ที่ เลขานุการคณะกรรมการจริยธรรมฯ ฝ่ายวิจัย คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา โทร. 038-102823

ใบยินยอมเข้าร่วมการวิจัย

หัวข้อวิทยานิพนธ์ เรื่อง การทดสอบเชิงประจักษ์ของแบบจำลองเชิงสาเหตุของการกลั่นแกล้งในสถานที่ทำงานในพยาบาลวิชาชีพอาวุโส

วันให้คำยินยอม วันที่ .....เดือน.....พ.ศ. .....

ก่อนที่จะลงนามในใบยินยอมเข้าร่วมการวิจัยนี้ ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยถึงวัตถุประสงค์ของการวิจัย วิธีการวิจัย ประโยชน์ที่จะเกิดขึ้นจากการวิจัยอย่างละเอียดและมีความเข้าใจดีแล้ว ข้าพเจ้ายินดีเข้าร่วมโครงการวิจัยนี้ด้วยความสมัครใจ และข้าพเจ้ามีสิทธิที่จะบอกเลิกการเข้าร่วมในโครงการวิจัยนี้เมื่อใดก็ได้ และการบอกเลิกการเข้าร่วมการวิจัยนี้ จะไม่มีผลกระทบใด ๆ ต่อข้าพเจ้า

ผู้วิจัยรับรองว่าจะตอบคำถามต่าง ๆ ที่ข้าพเจ้าสงสัยด้วยความเต็มใจ ไม่ปิดบังซ่อนเร้นจนข้าพเจ้าพอใจ ข้อมูลเฉพาะเกี่ยวกับตัวข้าพเจ้าจะถูกเก็บเป็นความลับและจะเปิดเผยในภาพรวมที่เป็น
การสรุปผลการวิจัย

ข้าพเจ้าได้อ่านข้อความข้างต้นแล้ว และมีความเข้าใจดีทุกประการ และได้ลงนามในใบยินยอมนี้ด้วยความเต็มใจ

ลงนาม.....ผู้ยินยอม

(.....)

ลงนาม.....พยาน

(.....)

ลงนาม.....ผู้วิจัย

(นางเขมิกา เสียงเพราะ)

THE INSTITUTIONAL REVIEW BOARD (IRB) FOR GRADUATE STUDIES
FACULTY OF NURSING, BURAPHA UNIVERSITY, THAILAND

Thesis Title An Empirical Test of a Casual Model of Workplace Bullying in Senior Registered Nurses

Name Mrs. Khemika Siangphrao
ID: 59810069
Doctor of Philosophy in Nursing Science (International Program)

Number of the IRB approval 01 – 06 – 2562

The Institutional Review Board (IRB) for graduate studies of Faculty of Nursing, Burapha University reviewed your submitted proposal. The contingencies have been addressed and the IRB **approves** the protocol. Work on this project may begin. This approval is for a period of one year from the date of this letter and will require continuation approval if the research project extends beyond **June 11st, 2020**.

If you make any changes to the protocol during the period of this approval, you must submit a revised protocol to the IRB committee for approval before implementing the changes.

Date of Approval June 11st, 2019

Chintana Wacharasin, R.N., Ph.D.

Chairperson of the IRB
Faculty of Nursing, Burapha University, THAILAND

Tel.: 66-038-102823
Fax: 66-038-393476
E-Mail: naruemit@buu.ac.th

AF 05-09

COA No. RYH 019/2562

RYH REC No.E012/2562

คณะกรรมการจริยธรรมการวิจัยในมนุษย์ โรงพยาบาลระยอง

กระทรวงสาธารณสุข

ที่อยู่138 ถ.สุขุมวิท ต.ท่าประดู่ อ.เมือง จ.ระยอง โทร. 0-3861-1104 ต่อ 2240

เอกสารรับรองโครงการวิจัยแบบเร็ว

คณะกรรมการจริยธรรมการวิจัยในมนุษย์ โรงพยาบาลระยอง ดำเนินการให้การรับรองโครงการวิจัยตามแนวทางหลักจริยธรรมการวิจัยในคนที่เป็นมาตรฐานสากลได้แก่ Declaration of Helsinki, The Belmont Report, CIOMS Guideline และ International Conference on Harmonization in Good Clinical Practice หรือ ICH-GCP

ชื่อโครงการ : การทดสอบเชิงประจักษ์ของแบบจำลองเชิงสาเหตุของการกลั่นแกล้งในสถานที่ทำงานในพยาบาลวิชาชีพอาวุโส

An empirical test of a causal model of workplace bullying in senior registered nurses

เลขที่โครงการวิจัย : RYH REC No.E012/2562

ผู้วิจัยหลัก : นางเขมิกา เสียงเพราะ

สังกัดหน่วยงาน : คณะพยาบาลศาสตร์ มหาวิทยาลัยราชภัฏชัยภูมิ สาขาการพยาบาลผู้ใหญ่และผู้สูงอายุ

วิธีทบทวน : Expedited

รายงานความก้าวหน้า : ส่งรายงานความก้าวหน้าอย่างน้อย 1 ครั้ง/ปี หรือ ส่งรายงานฉบับสมบูรณ์หากดำเนินโครงการเสร็จสิ้นก่อน 1 ปี

เอกสารรับรอง : สรุปโครงร่างการวิจัย

เอกสารคำแนะนำหรือแจ้งข้อมูลแก่ผู้ยินยอมให้วิจัย

แบบฟอร์มให้คำยินยอมเข้าร่วมโครงการวิจัย

ลงนาม .....

(นายสมบูรณ์ มะลิขาว)

ประธาน

คณะกรรมการจริยธรรมการวิจัยในมนุษย์

ลงนาม .....

(นางสิชล เจียมอนุกูลกิจ)

กรรมการและเลขานุการ

คณะกรรมการจริยธรรมการวิจัยในมนุษย์

Approved

วันที่รับรอง : 20 มิถุนายน 2562

วันหมดอายุ : 31 ธันวาคม 2562

ทั้งนี้ การรับรองนี้มีเงื่อนไขดังที่ระบุไว้ด้านหลังทุกข้อ (ดูด้านหลังของเอกสารรับรองโครงการวิจัย)

AF 05-09

นักวิจัยทุกท่านที่ผ่านการรับรองจริยธรรมการวิจัยต้องปฏิบัติดังต่อไปนี้

1. ดำเนินการวิจัยตามที่ระบุไว้ในโครงร่างการวิจัยอย่างเคร่งครัด
2. ใช้เอกสารแนะนำอาสาสมัคร ใบยินยอม (และเอกสารเชิญเข้าร่วมวิจัยหรือใบโฆษณาถ้ามี) แบบสัมภาษณ์ และหรือ แบบสอบถาม เฉพาะที่มีตราประทับของคณะกรรมการพิจารณาจริยธรรมเท่านั้น และส่งสำเนาเอกสารดังกล่าวที่ใช้กับผู้เข้าร่วมวิจัยจริงรายแรกมาที่ R2RRayong@gmail.com เพื่อเก็บไว้เป็นหลักฐาน
3. รายงานเหตุการณ์ไม่พึงประสงค์ร้ายแรงที่เกิดขึ้นหรือการเปลี่ยนแปลงกิจกรรมวิจัยใดๆ ต่อคณะกรรมการพิจารณาจริยธรรมการวิจัย ภายใน 5 วันทำการ
4. ส่งรายงานความก้าวหน้าต่อคณะกรรมการพิจารณาจริยธรรมการวิจัย ตามเวลาที่กำหนดหรือเมื่อได้รับการร้องขอ
5. หากการวิจัยไม่สามารถดำเนินการเสร็จสิ้นภายในกำหนด ผู้วิจัยต้องยื่นขออนุมัติใหม่ก่อน อย่างน้อย 1 เดือน
6. เอกสารทุกฉบับที่ได้รับการรับรองครั้งนี้ หมดอายุตามอายุของโครงการวิจัยที่ได้รับการรับรองก่อนหน้านี้ (หมายเลขโครงการ RYH RYH REC No.E012/2562)

* รายชื่อของคณะกรรมการจริยธรรมการวิจัยในมนุษย์ (ชื่อและตำแหน่ง) ที่อยู่ในที่ประชุมวันที่รับรองโครงการวิจัยได้แนบมาด้วย เอกสารที่รับรองทั้งหมดจะถูกส่งไปยังผู้วิจัยหลักรอง

Approved

	มาตรฐานการปฏิบัติงานจริยธรรมการวิจัยเกี่ยวกับมนุษย์ ชื่อหน่วยงานโรงพยาบาลบุรีรัมย์ กระทรวงสาธารณสุข	BR 04-01/01.0
	แบบแจ้งผลพิจารณาจริยธรรมการวิจัย	เริ่มใช้ ๑๔ ม.ค.๖๒

บันทึกข้อความ

ส่วนราชการ สำนักงานคณะกรรมการจริยธรรมการวิจัยเกี่ยวกับมนุษย์ โรงพยาบาลบุรีรัมย์ **โทร.** ๔๐๑๑,๔๗๐๕

ที่ บร ๐๐๓๒.๑๐๒.๑/ ๒๑ **วันที่** ๒๕ กรกฎาคม ๒๕๖๒

เรื่อง แจ้งผลการพิจารณาจริยธรรมการวิจัยในมนุษย์โรงพยาบาลบุรีรัมย์

เรียน นางเขมิกา เสียงเพราะ ผู้วิจัยหลัก

จากการประชุมคณะกรรมการจริยธรรมการวิจัยเกี่ยวกับมนุษย์ โรงพยาบาลบุรีรัมย์ ครั้งที่ ๔/๒๕๖๒ ในวันที่ ๑๘ กรกฎาคม ๒๕๖๒ ได้พิจารณาโครงการวิจัย "การทดสอบเชิงประจักษ์ของแบบจำลองเชิงสาเหตุของการกลั่นแกล้งในสถานที่ทำงานในพยาบาลวิชาชีพอาวุโส (An empirical test of a causal model of workplace bullying in senior registered nurses)"

ผู้วิจัยหลัก นางเขมิกา เสียงเพราะ

คณะกรรมการมีมติเห็นชอบให้การรับรองจริยธรรมการวิจัย และเห็นสมควรให้ทำงานวิจัยดังกล่าวในโรงพยาบาลบุรีรัมย์ได้ โดยคณะกรรมการมีความเห็นให้ผู้วิจัยส่งรายงานความก้าวหน้าอย่างน้อย ปีละ ๑ ครั้ง หรือส่งรายงานฉบับสมบูรณ์หากดำเนินโครงการเสร็จสิ้นก่อน ๑ ปี

จึงเรียนมาเพื่อโปรดทราบ

พัชรี ยิ้มรัตนบวร

(นางสาวพัชรี ยิ้มรัตนบวร)
ประธานคณะกรรมการจริยธรรมการวิจัยเกี่ยวกับมนุษย์

REC No.12/2019

Uttaradit Hospital
Ministry of Public Health
Address 38 Jesda Bodin Road, Tait , Mueang District Uttaradit Thailand
Tel. 055-832-601 ext. 2157-2158

Certificate of Approval

The Research Ethics Committee of the Uttaradit Tertiary Hospital of the Ministry of Public Health Thailand, has approved the following study which is to be carried out in compliance with the International guidelines for human research protection as Declaration of Helsinki, The Belmont Report, CIOMS Guideline and International Conference on Harmonization in Good Clinical Practice (ICH-GCP)

Study Title : An Empirical Test of a Causal Model of Workplace Bullying in Senior Registered Nurses

Study Code : 12/2019

Study Center : Faculty of Nursing, Chaiyaphum Rajabhat University

Principal Investigator : Mrs. Khemika Siangphrao

Review Method : Full board

Continuing Report : At least once annually or submit the final report if finished

Document Reviewed : Proposal, Case Record Form, Submission form Ethical Review
Information sheet for research participant
Principal Investigator Curriculum vitae

Signature : Weravut Mingkuan
(Weravut Mingkuan, M.D.)
Head of Human Ethic Committee

Signature : Aryoot Pamarapa
(Dr.Aryoot Pamarapa)
Uttaradit Hospital Director

Date of Approval : 21 June 2019
Approval Expire Date : 20 June 2020

รหัสโครงการวิจัยที่ 37/2562
เอกสารรับรองเลขที่ 33/2562

คณะกรรมการจริยธรรมการวิจัยในมนุษย์
โรงพยาบาลมหาราชนครศรีธรรมราช

โครงการวิจัย(ภาษาไทย)	การทดสอบเชิงประจักษ์ของแบบจำลองเชิงสาเหตุของการกลั่นแกล้งในสถานที่ทำงานในพยาบาลวิชาชีพอาวุโส
(ภาษาอังกฤษ)	An empirical test of a causal model of workplace bullying in senior registered nurses.
ผู้วิจัยหลัก	นางเขมิกา เสียงเพราะ
ตำแหน่ง / สถานะ	นักศึกษาหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาวิชาพยาบาลศาสตร์ (หลักสูตรนานาชาติ) คณะพยาบาลศาสตร์
สถาบัน	มหาวิทยาลัยบูรพา

คณะกรรมการจริยธรรมการวิจัยในมนุษย์ โรงพยาบาลมหาราชนครศรีธรรมราช ได้พิจารณาเห็นชอบ ให้ดำเนินการศึกษาวิจัยดังกล่าวได้ เมื่อวันที่ 20 เดือน สิงหาคม พ.ศ. 2562 และรับรองเป็นระยะเวลา 1 ปี สิ้นสุดระยะการรับรอง วันที่ 19 เดือน สิงหาคม พ.ศ. 2563

ผู้วิจัยต้องรายงานสถานะของโครงการให้คณะกรรมการจริยธรรมการวิจัยในมนุษย์โรงพยาบาลมหาราชนครศรีธรรมราช ทราบตามที่คณะกรรมการฯ กำหนด เพื่อขออนุมัติดำเนินการต่อจนกว่าจะสิ้นสุดระยะการรับรอง

ลงนาม.....
(นางสาวปรานปรีณ์ โรจน์เจริญงาม)
ประธานคณะกรรมการจริยธรรมการวิจัยในมนุษย์
โรงพยาบาลมหาราชนครศรีธรรมราช

ลงนาม.....
(นางจันทร์จิรา กั่งอุบล)
ผู้ช่วยผู้อำนวยการด้านพัฒนาระบบบริการสุขภาพ ปฏิบัติราชการแทน
ผู้อำนวยการโรงพยาบาลมหาราชนครศรีธรรมราช

คณะกรรมการจริยธรรมการวิจัยในมนุษย์ โรงพยาบาลพระนครศรีอยุธยา
46 หมู่4 ต.ประตูชัย อ.พระนครศรีอยุธยา จ.พระนครศรีอยุธยา โทร 035-211888 ต่อ 2509

เอกสารรับรองการยกเว้นพิจารณาจริยธรรมโครงการวิจัย

คณะกรรมการจริยธรรมการวิจัยในมนุษย์ โรงพยาบาลพระนครศรีอยุธยา ดำเนินการให้รับรองโครงการวิจัยตามแนวทางหลักจริยธรรมการวิจัยในคนที่เป็นมาตรฐานสากลได้แก่ Declaration of Helsinki, The Belmont Report, CIOMS Guideline และ International Conference on Harmonization in Good Clinical Practice หรือ ICH-GCP

ชื่อโครงการ : การทดลองเชิงประจักษ์แบบจำลองเชิงสาเหตุของการกลั่นแกล้งในสถานที่ทำงานของพยาบาลอาวุโส

เลขที่โครงการวิจัย : E035/62

ผู้วิจัยหลัก : นางเขมิกา เสียงเพราะ

สังกัดหน่วยงาน : คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา

เอกสารรับรอง :
- โครงร่างวิจัย
- เอกสารชี้แจงผู้เข้าร่วมวิจัย
- ใบยินยอมเข้าร่วมวิจัย
- แบบสอบถามพยาบาลวิชาชีพ

ลงนาม.....
(ดร.พญ.ประกายทิพ สุศิลปรัตน์)
ประธานคณะกรรมการจริยธรรมการวิจัยในมนุษย์

ลงนาม.....
(นายธีร์รัฐ พงศ์เลิศอารี)
กรรมการและเลขานุการ
คณะกรรมการจริยธรรมการวิจัยในมนุษย์

วันที่รับรองการยกเว้นพิจารณาจริยธรรม : 19 JUN 2019

หมายเหตุ ไม่ต้องทบทวนต่อเนื่อง (การแก้ไขเปลี่ยนแปลง,รายงานความก้าวหน้า,รายงานเมื่อเสร็จสิ้นการวิจัย ,อื่นๆ)

APPENDIX C

Instruments

แบบสอบถามพยาบาลวิชาชีพ

คำชี้แจง ท่านได้รับเชิญให้เข้าร่วมการวิจัยครั้งนี้เนื่องจากท่านเป็นผู้ที่มีคุณสมบัติตรงกับการศึกษาครั้งนี้ คือเป็นพยาบาลวิชาชีพที่ปฏิบัติงานในโรงพยาบาลศูนย์ สังกัดกระทรวงสาธารณสุขซึ่งมีอายุ 40 ปีขึ้นไป และสมัครใจเข้าร่วมงานวิจัย ขอให้ท่านตอบแบบสอบถามตามความเป็นจริงด้วยตัวของท่านเอง แบบสอบถามชุดนี้ มีทั้งหมด 139 ข้อ แบ่งเป็น 7 ส่วน คือ 1) ข้อมูลส่วนบุคคล 2) แบบสอบถามวัฒนธรรมองค์การ3) แบบสอบถามภาวะผู้นำที่แท้จริง 4) แบบประเมินสมรรถนะของพยาบาลวิชาชีพ 5) แบบสอบถามพฤติกรรมอันไม่พึงประสงค์ 6) แบบสอบถามอาการอย่างสั้น – 18 ข้อ และ 7) แบบสอบถามวัดความเหนื่อยหน่าย

ส่วนที่ 1 แบบสอบถามข้อมูลส่วนบุคคล

คำชี้แจง กรุณาเขียนรายละเอียด หรือทำเครื่องหมาย ✓ ลงใน ช่อง ○ ที่ตรงตามความเป็นจริงมากที่สุด

1. อายุ ○ 40-44 ปี ○ 45-49 ปี ○ 50-54 ปี ○ 55-59 ปี ○ 60 ปีขึ้นไป
2. เพศ ○ ชาย ○ หญิง
3. สถานภาพสมรส ○ โสด ○ คู่ ○ หม้าย ○ หย่า/ แยกกันอยู่
4. ระดับการศึกษา ○ ปริญาตรี
   ○ ปริญาโท สาขา……..
   ○ ปริญาเอก สาขา…….
5. ประสบการณ์ทำงานพยาบาลวิชาชีพ
   ○ น้อยกว่า 10 ปี ○ 11-20 ปี ○ 21-30 ปี ○ 31-40 ปี ○ 40 ปีขึ้นไป
6. ตำแหน่ง……..
7. หอผู้ป่วย ○ อายุรกรรม ○ ศัลยกรรม ○ สูตินรีเวชกรรม ○ กุมารเวชกรรม ○ ผู้ป่วยหนัก ○ อุบัติเหตุและฉุกเฉิน ○ จักษุ ○ หู คอ จมูก ○ จิตเวช ○ ผู้ป่วยนอก ○ อื่นๆ……..
8. รายได้ต่อเดือน ○ ต่ำกว่า 20,000
   ○ 20,000-30,000
   ○ 30,000-40,000
   ○ 40,000-50,000
   ○ มากกว่า 50,000

ส่วนที่ 2 แบบสอบถามวัฒนธรรมองค์การ

คำชี้แจง โปรดเขียนเครื่องหมาย ✓ ลงในช่องที่ตรงกับความคิดเห็นและความเป็นจริงเกี่ยวกับตัวท่านมากที่สุด

ข้อคำถาม	ระดับความคิดเห็น				
	ไม่เห็นด้วยอย่างยิ่ง (1)	ไม่เห็นด้วย (2)	ไม่แน่ใจ (3)	เห็นด้วย (4)	เห็นด้วยอย่างยิ่ง (5)
1. ผู้บริหารได้รับสิทธิพิเศษเหนือกว่าพนักงานทั่วไป					
2. ผู้บริหารและพนักงานระดับล่างมีเงินเดือนแตกต่างกันมาก					
3. องค์การของท่านมีการกระจายอำนาจที่เท่าเทียมกัน					
4. ท่านรับรู้ว่าตำแหน่งที่ต่างกันทำให้แต่ละคนมีอำนาจหน้าที่ การตัดสินใจ และเงินเดือนแตกต่างกัน					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
26.					

ส่วนที่ 3 แบบสอบถามภาวะผู้นำที่แท้จริง

คำชี้แจง โปรดเขียนเครื่องหมาย ✓ ในช่องที่ตรงกับความคิดเห็นและความเป็นจริงเกี่ยวกับหัวหน้าของท่านมากที่สุด

ข้อคำถาม	ระดับความคิดเห็น				
	ไม่เคยแสดงออก (0)	แสดงออกเล็กน้อย (1)	แสดงออกปานกลาง (2)	แสดงออกมาก (3)	แสดงออกมากที่สุด (4)
ความโปร่งใส					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
ความมีคุณธรรม/ จริยธรรม					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
ความยุติธรรม					
1.					
2.					
3.					
4.					
5.					
6.					
7.					

ข้อคำถาม	ระดับความคิดเห็น				
	ไม่เคยแสดงออก (0)	แสดงออกเล็กน้อย (1)	แสดงออกปานกลาง (2)	แสดงออกมาก (3)	แสดงออกมากที่สุด (4)
8. ……..					
ความตระหนักรู้ในตนเอง 1. ……..					
2. ……..					
3. ……..					
4. ……..					
5. ……..					
6. ……..					
7. ……..					
8. ……..					

ส่วนที่ 4 แบบประเมินสมรรถนะของพยาบาลวิชาชีพ

คำชี้แจง โปรดเขียนเครื่องหมาย ✓ลงในช่องที่ตรงกับความคิดเห็นและความเป็นจริงเกี่ยวกับตัวท่านมากที่สุด

คุณคิดว่าคุณมีความสามารถมากน้อยเพียงใด	น้อยที่สุด (1)	น้อย (2)	ค่อนข้างน้อย (3)	ปานกลาง (4)	ค่อนข้างมาก (5)	มาก (6)	มากที่สุด (7)
1. ……..							
2. ……..							
3. ……..							
4. ……..							
5. ……..							
6. ……..							
7. ……..							
8. ……..							
9. ……..							
10. ……..							
11. ……..							
12. ……..							
13. ……..							
14. ……..							
15. ……..							
16. ……..							
17. ……..							
18. ……..							
19. ……..							
20. ……..							
35. ……..……..							

ส่วนที่ 5 แบบสอบถามพฤติกรรมอันไม่พึงประสงค์

คำชี้แจง พฤติกรรมดังต่อไปนี้เป็นตัวอย่างของพฤติกรรมอันไม่พึงประสงค์ในที่ทำงานซึ่งพบได้เสมอ ๆ **<u>ในรอบ 6 เดือนที่ผ่านมา</u>** ท่านเผชิญกับพฤติกรรมอันไม่พึงประสงค์เหล่านี้บ่อยครั้งเพียงใด กรุณาทำเครื่องหมาย ✓ ลงในช่องตัวเลขที่ตรงกับประสบการณ์ในช่วง 6 เดือนที่ผ่านมาของท่านมากที่สุด

พฤติกรรม	ไม่เคย (1)	นานๆ ครั้ง (2)	ทุกๆ เดือน (3)	ทุกๆ สัปดาห์ (4)	ทุกๆ วัน (5)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
..					
..					
..					
22.					

23. ท่านเคย

.....

.....

.....

- ○.....
- ○.....
- ○.....
- ○.....
- ○.....

24. หากท่านตอบใช่ในข้อที่ผ่านมา (23) ..... (สามารถเลือกได้มากกว่า 1 ข้อ)

- ○.....
- ○.....
- ○.....
- ○.....
- ○.....

25. โปรดระบุ.....

ชาย.....

หญิง.....

ส่วนที่ 6 แบบสอบถามอาการอย่างสั้น – 18 ข้อ

โปรดอ่านแต่ละประโยคอย่างรอบคอบใส่เครื่องหมาย ✓ ลงในช่องที่อธิบายถึงอาการในช่วง 7 วันที่ผ่านมา

คุณรู้สึกมีปัญหาหรืออาการเหล่านี้มากน้อยเพียงใด	**ไม่มีเลย (0)**	**เล็กน้อย (1)**	**ปานกลาง (2)**	**มาก (3)**	**มากที่สุด (4)**
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
...					
...					
18.					

ส่วนที่ 7 แบบสอบถามวัดความเหนื่อยหน่าย

คำชี้แจง โปรดเขียนเครื่องหมาย ✓ ลงในช่องที่ตรงกับความรู้สึกและความเป็นจริงเกี่ยวกับตัวท่านมากที่สุด

ข้อความเกี่ยวกับความรู้สึกของท่าน	ไม่เคยรู้สึกเช่นนั้น (0)	ปีละ 2-3 ครั้ง (1)	เดือนละ 1 ครั้ง (2)	เดือนละ 2-3 ครั้ง (3)	สัปดาห์ละ 1 ครั้ง (4)	สัปดาห์ละ 2-3 ครั้ง (5)	ทุกๆ วัน (6)
1. ……...							
2. ……...							
3. ……...							
4. ……...							
5. ……...							
6. ……...							
7. ……...							
8. ……...							
9. ……...							
10. ……...……......							
11. ……...							
12. ……...							
...							
...							
22. ……...							

****

ขอขอบคุณในความร่วมมือในการตอบแบบสอบถาม

APPENDIX D

Evaluation of assumptions

Table Appendix D-1 Standardized scores of continuous variables for testing univariate outlier (n = 288)

ID	OVERALL	ZORG	ZAUTH	ZNCOM	ZWORK	ZSYM	ZBURN
1	-0.006	0.246	-0.147	-0.609	1.662	1.688	-0.469
2	0.007	0.676	-0.147	0.343	0.400	1.688	-0.469
3	-0.069	-0.232	-0.147	-1.062	1.662	-0.059	-0.402
4	-0.069	-0.232	-0.147	-1.062	1.662	-0.059	-0.398
5	-0.069	-0.232	-0.147	-0.949	1.419	-0.059	-0.382
6	-0.063	-0.232	-0.147	-0.949	1.662	-0.059	-0.366
7	-0.063	-0.232	-0.147	-0.949	1.662	-0.059	-0.366
8	-0.079	-0.423	-0.147	-0.813	-0.328	-0.059	-0.339
9	-0.076	-0.232	-0.147	-0.813	-0.085	-0.059	-0.339
10	-0.049	-0.232	-0.147	-0.020	-0.085	-0.059	-0.291
11	0.017	0.676	-0.147	-0.020	-0.328	1.774	-0.287
12	0.020	0.676	-0.147	-0.020	-0.328	1.877	-0.287
13	0.020	0.676	-0.147	-0.020	-0.328	1.877	-0.287
14	0.020	0.676	-0.147	-0.020	-0.328	1.774	-0.276
15	0.020	0.676	-0.147	-0.020	-0.328	1.774	-0.276
16	0.017	1.489	1.751	1.340	-1.638	-0.350	-0.276
17	0.014	1.632	1.890	0.728	-1.638	-0.110	-0.276
18	-0.013	-0.184	-0.147	-0.020	-0.328	1.089	-0.272
19	-0.013	-0.184	-0.147	-0.020	-0.328	1.089	-0.272
20	-0.020	-0.710	-0.147	-0.020	-0.328	1.089	-0.272
21	0.020	0.246	-0.147	-0.020	-0.328	1.945	-0.272
22	0.027	0.676	-0.147	-0.020	-0.328	2.048	-0.272
23	0.027	0.676	-0.147	-0.020	-0.328	2.048	-0.272
24	0.027	0.676	-0.147	-0.020	-0.328	2.048	-0.272
25	0.027	0.676	-0.147	-0.020	-0.328	2.048	-0.272
26	-0.053	-0.327	0.076	-0.020	-0.813	-0.110	-0.272
27	-0.053	-0.327	0.076	-0.020	-0.813	-0.110	-0.272
28	-0.026	-0.327	0.244	0.796	-0.570	-0.110	-0.268
29	-0.040	-0.184	1.388	0.116	-1.395	-0.435	-0.260
30	-0.006	0.007	1.583	1.295	-1.638	-0.435	-0.260
31	0.004	0.294	1.751	1.295	-1.638	-0.350	-0.260
32	0.014	0.868	-0.147	-0.767	-0.328	2.048	-0.256
33	0.014	0.676	-0.147	-0.767	-0.328	2.117	-0.256
34	0.030	0.246	-0.147	-0.314	-0.328	2.442	-0.256
35	-0.053	-0.327	0.244	-0.246	-0.813	-0.110	-0.256
36	-0.023	1.489	1.220	0.116	-1.298	-0.521	-0.248
37	-0.036	-0.184	1.388	0.116	-1.395	-0.435	-0.248

Table Appendix D-1 (Continued)

ID	OVERALL	ZORG	ZAUTH	ZNCOM	ZWORK	ZSYM	ZBURN
38	-0.023	0.629	1.583	0.116	-1.395	-0.435	-0.248
39	-0.033	-0.327	0.244	0.479	-0.570	-0.110	-0.244
40	0.014	-0.327	0.244	0.796	-0.570	1.089	-0.244
41	0.017	-0.184	0.244	0.796	-0.570	1.089	-0.244
42	0.020	-0.710	0.244	0.479	0.691	1.175	-0.244
43	-0.036	0.485	0.383	0.592	-0.570	-0.778	-0.240
44	-0.056	0.246	0.551	1.136	-0.861	-1.720	-0.236
45	-0.013	1.202	0.355	-0.088	-0.231	0.130	-0.232
46	-0.010	1.346	0.355	-0.088	-0.231	0.130	-0.232
47	-0.016	0.868	0.355	-0.088	-0.231	0.130	-0.232
48	-0.020	0.103	1.220	0.887	-1.298	-0.641	-0.232
49	-0.020	0.103	1.220	0.932	-1.298	-0.641	-0.232
50	0.000	1.298	1.220	1.227	-1.298	-0.641	-0.232
51	0.000	1.298	1.220	1.227	-1.298	-0.641	-0.232
52	0.004	1.489	1.220	1.227	-1.298	-0.641	-0.232
53	-0.020	1.489	1.220	0.116	-1.395	-0.521	-0.232
54	-0.020	1.489	1.220	0.116	-1.298	-0.521	-0.232
55	-0.023	1.346	0.244	0.388	0.691	-0.881	-0.224
56	-0.023	0.963	0.244	0.388	0.691	-0.778	-0.224
57	-0.023	0.963	0.244	0.388	0.691	-0.778	-0.224
58	-0.023	0.772	0.244	0.479	0.691	-0.778	-0.224
59	0.024	-0.710	0.244	0.479	0.691	1.175	-0.224
60	-0.066	0.246	0.383	1.023	-0.619	-1.994	-0.224
61	-0.043	0.246	1.165	1.113	0.061	-1.994	-0.224
62	-0.049	0.868	0.551	1.317	-0.861	-1.891	-0.220
63	-0.053	0.533	0.551	1.136	-0.861	-1.720	-0.220
64	-0.056	0.246	0.551	1.136	-0.861	-1.720	-0.220
65	0.004	0.868	0.551	1.317	-0.861	-1.720	0.123
66	0.004	0.868	1.025	1.159	-0.861	-1.891	0.123
67	0.014	0.868	1.025	1.113	0.061	-1.891	0.123
68	0.007	0.103	1.025	1.113	0.061	-1.891	0.123
69	0.007	0.103	1.025	1.181	0.061	-1.891	0.123
70	0.000	0.246	1.025	1.159	-0.861	-1.823	0.123
71	0.044	-0.805	-0.230	1.249	-0.085	0.335	0.123
72	0.050	-0.184	-0.230	1.249	-0.085	0.335	0.123
73	0.050	-0.184	-0.230	1.249	-0.085	0.335	0.123
74	-0.010	0.246	0.383	1.023	-0.619	-1.720	0.123
75	0.014	1.632	0.383	0.615	-0.619	-1.206	0.123

Table Appendix D-1 (Continued)

ID	OVERALL	ZORG	ZAUTH	ZNCOM	ZWORK	ZSYM	ZBURN
76	-0.013	-0.041	0.383	0.887	-2.172	-1.103	0.123
77	0.030	0.246	0.383	0.887	-2.172	0.130	0.123
78	0.047	-0.327	0.383	0.683	-0.279	0.335	0.123
79	-0.006	0.246	0.551	1.136	-0.861	-1.720	0.123
80	0.083	0.390	1.165	1.113	0.061	0.335	0.123
81	0.017	-0.184	0.188	1.453	-0.085	0.335	-0.205
82	0.020	0.103	0.188	1.453	-0.085	0.335	-0.205
83	0.007	1.919	1.527	0.615	-0.667	-0.829	-0.197
84	0.000	-0.662	-0.230	1.181	0.061	0.335	-0.193
85	0.000	-0.662	-0.230	1.181	0.061	0.335	-0.193
86	-0.053	0.246	0.383	0.683	-0.085	-1.634	-0.193
87	-0.056	0.246	0.383	0.819	-0.813	-1.514	-0.193
88	-0.056	0.246	0.383	0.819	-0.813	-1.514	-0.193
89	-0.069	0.246	0.383	0.909	-2.172	-1.514	-0.193
90	-0.016	1.346	0.383	0.909	-2.172	-1.514	0.091
91	0.007	1.346	0.383	1.068	-0.619	-1.514	0.091
92	0.007	1.346	0.383	1.023	-0.619	-1.429	0.091
93	0.004	1.346	0.383	0.615	-0.085	-1.429	0.091
94	-0.013	1.346	0.383	0.728	-2.172	-1.326	0.091
95	0.007	1.632	0.383	0.615	-0.619	-1.206	0.091
96	-0.013	1.202	0.383	0.728	-2.172	-1.206	0.091
97	-0.010	1.346	0.383	0.660	-2.172	-1.103	0.091
98	0.000	-0.041	0.383	0.955	-0.619	-1.103	0.091
99	-0.010	0.246	0.551	0.887	-0.861	-1.514	0.091
100	-0.006	0.533	0.551	0.887	-0.861	-1.514	0.091
101	0.000	0.868	0.551	1.068	-0.861	-1.514	0.091
102	0.014	1.346	0.551	0.887	-0.861	-1.206	0.091
103	0.017	1.202	0.551	1.068	-0.619	-1.206	0.091
104	0.014	1.202	0.551	0.887	-0.861	-1.103	0.091
105	-0.033	-0.041	1.025	0.932	-0.861	-1.206	-0.193
106	-0.010	1.632	1.025	1.159	-0.861	-1.206	-0.193
107	-0.026	0.103	1.332	0.116	-0.085	-0.915	-0.181
108	-0.026	-0.041	1.332	0.116	-0.085	-0.915	-0.181
109	0.014	1.202	1.332	1.181	-0.085	-0.915	-0.181
110	0.014	1.346	1.332	1.181	-0.085	-0.915	-0.181
111	0.004	0.103	1.332	1.181	-0.085	-0.829	-0.181
112	0.047	0.629	1.332	1.227	-0.085	0.335	-0.181
113	0.010	-0.327	1.332	0.116	-0.085	0.335	-0.181

Table Appendix D-1 (Continued)

ID	OVERALL	ZORG	ZAUTH	ZNCOM	ZWORK	ZSYM	ZBURN
114	0.010	0.103	1.527	1.612	-0.667	-0.829	-0.181
115	-0.013	0.103	1.527	0.570	-0.522	-0.829	-0.181
116	0.020	0.772	1.527	1.612	-0.667	-0.744	-0.181
118	0.027	0.963	1.751	1.612	-0.667	-0.744	-0.181
119	0.020	0.103	1.751	1.657	-0.667	-0.744	-0.181
120	0.050	1.346	1.918	1.657	-0.231	-0.504	-0.181
121	0.060	1.489	1.918	1.657	-0.667	-0.059	-0.181
122	0.037	-0.184	1.165	1.113	0.061	0.335	-0.169
123	0.000	-0.041	1.332	1.181	-0.085	-0.915	-0.169
124	0.030	1.346	1.527	0.411	-0.522	0.130	-0.169
125	-0.030	0.103	0.383	0.592	-0.570	-0.778	-0.153
126	-0.026	0.485	0.383	0.592	-0.570	-0.778	-0.153
127	-0.020	1.154	0.383	0.366	-0.570	-0.658	-0.153
128	-0.020	1.154	0.383	0.366	-0.570	-0.658	-0.153
129	-0.016	1.346	0.383	0.411	-0.570	-0.658	-0.153
130	-0.030	0.103	0.383	0.456	-0.570	-0.658	-0.153
131	-0.013	1.489	0.383	0.343	-0.570	-0.590	-0.153
132	-0.023	-0.375	0.383	0.819	-0.813	-0.470	-0.153
133	-0.030	-0.184	0.383	0.343	-0.570	-0.470	-0.153
134	-0.010	1.489	0.383	0.343	-0.570	-0.470	-0.153
135	-0.026	-0.805	0.383	0.819	-0.570	-0.470	-0.153
136	-0.006	0.294	0.383	1.023	-0.619	-0.384	-0.153
137	-0.033	0.246	1.165	1.113	0.061	-1.994	-0.153
138	0.027	-0.184	0.188	1.453	-0.085	0.335	-0.153
139	-0.013	-0.041	1.527	0.411	-0.085	-0.915	-0.153
140	0.057	0.629	1.527	1.227	-0.085	0.335	-0.153
141	0.010	1.632	0.132	0.728	-1.638	0.010	-0.071
142	0.044	0.246	1.890	1.340	-1.638	0.010	-0.071
143	-0.033	-1.188	-1.319	-0.110	0.594	0.404	-0.071
144	-0.073	-1.809	-1.012	-1.447	0.012	0.404	-0.071
145	-0.069	-1.809	-1.012	-1.334	0.012	0.404	-0.071
146	-0.056	-2.909	-1.012	-0.314	0.109	0.404	-0.071
147	-0.036	-1.188	-1.012	-0.314	0.109	0.404	-0.071
148	-0.013	-0.041	-0.788	-1.742	2.002	1.038	-0.071
149	-0.020	-0.184	-0.649	-1.697	0.546	1.226	-0.071
150	-0.013	-0.710	-0.649	-1.697	1.856	1.226	-0.071
151	-0.006	-0.327	-0.649	-1.742	2.002	1.226	-0.071
152	-0.010	-0.710	-0.649	-1.697	2.002	1.226	-0.071

Table Appendix D-1 (Continued)

ID	OVERALL	ZORG	ZAUTH	ZNCOM	ZWORK	ZSYM	ZBURN
153	-0.006	-0.327	-0.649	-1.697	2.002	1.226	-0.071
154	-0.026	-0.327	0.244	-0.246	-0.813	-0.110	-0.055
155	-0.033	-0.901	0.244	-0.246	-0.813	-0.110	-0.055
156	-0.026	-0.327	0.244	-0.246	-0.813	-0.110	-0.055
157	0.010	0.868	0.355	-0.088	-0.231	0.130	-0.055
158	0.010	0.103	1.220	1.159	-1.298	-0.641	-0.055
159	0.027	1.489	1.220	1.204	-1.298	-0.641	-0.055
160	0.014	0.246	1.220	1.227	-1.298	-0.641	-0.055
161	0.007	1.632	1.220	0.116	-1.395	-0.521	-0.055
162	0.004	1.489	1.220	0.116	-1.298	-0.521	-0.055
163	0.057	1.489	1.890	1.340	-1.638	-0.110	-0.055
164	0.057	1.489	1.890	1.340	-1.638	-0.110	-0.055
165	0.057	1.489	1.890	1.340	-1.638	-0.110	-0.055
166	-0.003	1.346	0.355	-0.246	-0.425	-0.846	0.091
167	0.000	1.632	0.355	-0.246	-0.425	-0.846	0.091
168	0.004	1.919	0.355	-0.246	-0.425	-0.846	0.091
169	0.007	1.298	0.355	0.048	-0.425	-0.744	0.091
170	0.030	1.202	0.355	-0.246	-0.231	0.130	0.091
171	0.030	1.202	0.355	-0.246	-0.231	0.130	0.091
172	0.027	1.011	0.355	-0.246	-0.231	0.130	0.091
173	0.027	1.011	0.355	-0.246	-0.231	0.130	0.091
174	-0.020	0.246	0.383	0.683	0.303	-1.891	0.091
175	-0.030	0.868	0.383	0.909	-2.172	-1.720	0.091
176	-0.006	0.868	0.383	1.023	-0.619	-1.720	0.091
177	0.010	1.298	0.523	0.048	-0.425	-0.744	0.091
178	0.024	1.154	0.523	0.116	0.691	-0.744	0.091
179	0.047	-0.375	-0.147	-0.609	0.400	1.603	0.091
180	0.073	-0.327	-0.147	0.343	0.400	1.603	0.107
181	0.073	-0.327	-0.147	0.343	0.400	1.603	0.107
182	0.073	-0.184	-0.147	0.343	0.400	1.603	0.107
183	0.037	-0.375	-0.147	-0.881	-0.328	1.603	0.123
184	0.073	-0.375	-0.147	0.343	0.400	1.603	0.123
185	-0.013	-0.232	-0.147	-0.881	-0.231	-0.059	0.123
186	-0.013	-0.232	-0.147	-0.881	-0.231	-0.059	0.123
187	-0.010	-0.232	-0.147	-0.813	-0.085	-0.059	0.123
188	0.004	-0.232	-0.147	-0.881	1.419	-0.059	0.123
189	0.014	-0.232	-0.147	-0.609	1.662	-0.059	0.123
190	0.090	0.676	-0.147	0.343	0.400	1.688	0.123

Table Appendix D-1 (Continued)

ID	OVERALL	ZORG	ZAUTH	ZNCOM	ZWORK	ZSYM	ZBURN
191	0.030	-0.184	-0.649	-1.470	0.546	1.432	0.193
192	0.034	-0.184	-0.482	-1.425	0.546	1.432	0.193
193	0.057	-0.375	-0.482	-1.017	1.662	1.517	0.197
194	0.030	-0.375	-0.649	-1.470	0.546	1.517	0.209
195	0.004	-1.188	-1.849	-0.405	1.613	0.404	0.221
196	-0.006	-1.188	-1.514	-0.994	1.613	0.404	0.221
197	0.004	-1.522	-1.514	-0.609	1.613	0.524	0.221
198	0.000	-1.522	-1.514	-0.926	1.613	0.627	0.221
199	0.040	-0.375	-0.482	-1.357	0.546	1.517	0.221
200	0.040	-0.423	-0.482	-1.357	0.546	1.517	0.221
201	0.063	-0.375	-0.342	-1.017	1.662	1.517	0.221
202	0.077	-0.375	-0.342	-0.609	1.662	1.603	0.221
203	-0.016	-1.522	-1.514	-1.515	1.468	0.627	0.233
204	-0.036	-0.901	-1.514	-2.240	0.303	0.712	0.233
205	-0.043	-1.379	-1.514	-2.240	0.303	0.712	0.233
206	-0.040	-1.379	-1.374	-2.240	0.303	0.712	0.233
207	0.063	-0.375	-0.482	-0.405	0.400	1.517	0.237
208	0.000	-1.522	-1.514	-0.926	1.468	0.627	0.245
209	0.017	-1.379	-1.514	-0.405	1.613	0.627	0.245
210	0.000	-1.188	-2.100	-0.405	1.613	0.404	0.249
211	0.007	-1.188	-1.849	-0.405	1.613	0.404	0.249
212	0.007	-1.188	-1.849	-0.405	1.613	0.404	0.249
213	0.000	-1.809	-1.849	-0.405	1.613	0.404	0.249
214	0.004	-1.809	-1.681	-0.405	1.613	0.404	0.249
215	-0.026	-1.522	-1.514	-1.538	0.303	0.627	0.249
216	-0.026	-1.522	-1.514	-1.538	0.303	0.627	0.249
217	-0.023	-1.188	-1.514	-1.515	0.303	0.627	0.249
218	-0.023	-1.522	-1.514	-1.946	1.468	0.627	0.249
219	-0.023	-1.522	-1.514	-1.878	1.468	0.627	0.249
220	-0.016	-1.522	-1.514	-1.629	1.468	0.627	0.249
221	-0.013	-1.522	-1.514	-1.515	1.468	0.627	0.249
222	-0.006	-1.379	-1.374	-1.085	0.303	0.798	0.249
223	-0.043	-1.522	-1.374	-1.085	0.303	-0.350	0.249
224	-0.043	-1.379	-1.374	-1.085	0.303	-0.350	0.249
225	-0.030	-0.327	-1.374	-1.085	0.303	-0.350	0.249
226	0.007	-0.232	-1.374	0.343	0.303	-0.350	0.249
227	0.007	-0.232	-1.374	0.343	0.303	-0.350	0.249
228	-0.030	-0.901	-1.123	-1.085	0.303	-0.350	0.261

Table Appendix D-1 (Continued)

ID	OVERALL	ZORG	ZAUTH	ZNCOM	ZWORK	ZSYM	ZBURN
229	-0.006	-1.188	-2.239	-0.835	1.856	0.404	0.264
230	-0.010	-1.188	-2.100	-0.903	1.613	0.404	0.264
231	-0.003	-1.188	-2.100	-0.699	1.613	0.404	0.264
232	0.004	-1.809	-2.100	-0.110	1.613	0.404	0.264
233	0.004	-1.809	-2.100	-0.110	1.613	0.404	0.264
234	0.004	-1.522	-1.514	-0.926	1.468	0.627	0.264
235	0.024	-1.188	-1.514	-0.382	1.613	0.627	0.264
236	-0.030	-0.232	-0.956	-1.923	1.225	-0.350	0.264
237	0.010	-0.901	-0.956	-1.832	1.225	1.038	0.264
238	0.020	-0.232	-0.788	-1.878	1.225	1.038	0.264
239	0.024	-0.041	-0.788	-1.810	1.225	1.038	0.264
240	0.007	-1.522	-2.239	-0.382	2.293	0.404	0.276
241	-0.053	-1.522	-1.514	-1.538	0.303	-0.350	0.276
242	-0.003	-1.953	-1.486	-0.314	0.594	0.335	0.276
243	0.027	0.772	-1.319	-0.246	0.594	0.130	0.276
244	-0.026	-0.901	-0.956	-1.085	0.303	-0.350	0.276
245	-0.030	-1.379	-0.956	-1.085	0.303	-0.350	0.276
246	-0.006	-0.232	-0.956	-0.609	0.303	-0.350	0.276
247	-0.013	-1.809	-0.705	-1.198	0.012	0.404	0.276
248	-0.013	-1.809	-0.705	-1.198	0.012	0.404	0.276
249	-0.030	-0.232	-0.956	-1.991	1.225	-0.350	0.280
250	-0.026	-0.232	-0.956	-1.900	1.225	-0.350	0.280
251	-0.023	-0.041	-0.956	-1.878	1.225	-0.350	0.280
252	0.017	-0.232	-0.956	-1.832	1.225	0.918	0.280
253	0.020	-0.041	-0.956	-1.832	1.225	0.918	0.280
254	0.060	-0.041	-0.956	-0.110	1.225	0.918	0.280
255	0.060	-0.232	-0.956	-0.110	1.225	0.918	0.280
256	0.060	-0.232	-0.956	-0.110	1.225	0.918	0.280
257	-0.023	-1.809	-1.012	-1.447	0.109	0.404	0.288
258	0.044	-0.327	0.104	-0.405	0.158	0.335	0.292
259	0.037	-0.662	0.104	-0.405	0.158	0.335	0.292
260	0.063	-1.953	0.802	0.524	0.400	0.335	0.292
261	-0.023	-1.809	-1.012	-1.447	0.012	0.335	0.304
262	-0.023	-1.809	-1.012	-1.447	0.012	0.335	0.304
263	0.007	-1.809	-1.319	-0.110	0.109	0.404	0.308
264	0.000	-1.953	-1.319	-0.314	0.109	0.404	0.308
265	0.007	-1.809	-1.151	-0.314	0.109	0.404	0.308
266	0.034	-0.710	-0.788	-1.742	1.759	1.106	0.308

Table Appendix D-1 (Continued)

ID	OVERALL	ZORG	ZAUTH	ZNCOM	ZWORK	ZSYM	ZBURN
267	0.044	-0.184	-0.788	-1.742	1.759	1.226	0.308
268	0.030	-1.809	0.104	-0.405	0.400	0.335	0.308
269	0.073	0.772	0.635	-0.110	0.691	0.130	0.308
270	0.093	1.346	0.802	0.524	0.546	0.010	0.308
271	0.020	1.011	-1.486	-0.382	0.158	0.010	0.320
272	0.047	-0.805	0.495	-0.110	0.255	0.010	0.320
273	0.037	-0.184	-0.649	-1.651	0.546	1.226	0.335
274	0.040	-0.327	-0.649	-1.651	0.546	1.312	0.335
275	0.037	-0.710	-0.649	-1.606	0.546	1.312	0.335
276	0.040	-0.375	-0.649	-1.515	0.546	1.312	0.335
277	0.044	-0.184	-0.649	-1.515	0.546	1.312	0.335
278	0.044	-0.184	-0.649	-1.470	0.546	1.312	0.335
279	0.073	1.632	0.328	0.728	-1.638	0.010	0.351
280	0.093	1.346	0.495	0.638	0.400	0.010	0.351
281	0.080	1.202	0.635	-0.110	0.691	0.010	0.351
282	0.054	-0.184	-0.649	-1.470	0.546	1.432	0.363
283	0.054	-0.184	-0.649	-1.470	0.546	1.432	0.363
284	0.073	-0.423	-0.649	-0.405	0.400	1.432	0.363
285	0.083	-0.375	-0.649	-0.110	0.400	1.432	0.363
286	0.083	0.294	0.495	0.638	0.255	0.010	0.367
287	0.083	1.202	0.635	-0.110	0.691	0.010	0.367
288	0.087	-0.184	-0.649	-0.110	0.400	1.432	0.379

Table Appendix D-2 Test of multivariate outliers by using mahalanobis distance (n = 288)

ID	MAH	P_MAH	ID	MAH	P_MAH
1	0.370	2.990	43	0.900	2.900
2	0.370	3.030	44	0.700	2.840
3	0.370	2.800	45	0.260	2.970
4	0.370	2.800	46	0.260	2.980
5	0.500	2.800	47	0.260	2.960
6	0.370	2.820	48	0.460	2.950
7	0.370	2.820	49	0.470	2.950
8	0.490	2.770	50	0.680	3.010
9	0.580	2.780	51	0.680	3.010
10	0.610	2.860	52	0.680	3.020
11	0.420	3.060	53	0.720	2.950
12	0.360	3.070	54	0.760	2.950
13	0.360	3.070	55	0.660	2.940
14	0.440	3.070	56	0.700	2.940
15	0.420	3.070	57	0.700	2.940
16	0.460	3.060	58	0.680	2.940
17	0.210	3.050	59	0.250	3.080
18	0.650	2.970	60	0.370	2.810
19	0.650	2.970	61	0.200	2.880
20	0.650	2.950	62	0.600	2.860
21	0.320	3.070	63	0.670	2.850
22	0.260	3.090	64	0.670	2.840
23	0.260	3.090	65	0.680	3.020
24	0.260	3.090	66	0.500	3.020
25	0.260	3.090	67	0.330	3.050
26	0.500	2.850	68	0.330	3.030
27	0.500	2.850	69	0.330	3.030
28	0.170	2.930	70	0.540	3.010
29	0.690	2.890	71	0.050	3.140
30	0.540	2.990	72	0.050	3.160
31	0.460	3.020	73	0.050	3.160
32	0.260	3.050	74	0.540	2.980
33	0.230	3.050	75	0.800	3.050
34	0.050	3.100	76	0.840	2.970
35	0.530	2.850	77	0.880	3.100
36	0.760	2.940	78	0.940	3.150
37	0.690	2.900	79	0.700	2.990
38	0.640	2.940	80	0.630	3.260

Table Appendix D-2 (Continued)

ID	MAH	P_MAH	ID	MAH	P_MAH
39	0.390	2.910	81	0.170	3.060
40	0.180	3.050	82	0.120	3.070
41	0.180	3.060	83	0.460	3.030
42	0.250	3.070	84	0.100	3.010
85	0.100	3.010	127	0.910	2.950
86	0.570	2.850	128	0.910	2.950
87	0.520	2.840	129	0.920	2.960
88	0.520	2.840	130	0.920	2.920
89	0.660	2.800	131	0.920	2.970
90	0.660	2.960	132	0.830	2.940
91	0.760	3.030	133	0.940	2.920
92	0.690	3.030	134	0.940	2.980
93	0.700	3.020	135	0.890	2.930
94	0.760	2.970	136	0.800	2.990
95	0.800	3.030	137	0.200	2.910
96	0.810	2.970	138	0.170	3.090
97	0.850	2.980	139	0.260	2.970
98	0.820	3.010	140	0.520	3.180
99	0.770	2.980	141	0.150	3.040
100	0.770	2.990	142	0.310	3.140
101	0.790	3.010	143	0.420	2.910
102	0.880	3.050	144	0.270	2.790
103	0.870	3.060	145	0.320	2.800
104	0.890	3.050	146	0.510	2.840
105	0.810	2.910	147	0.510	2.900
106	0.840	2.980	148	0.470	2.970
107	0.640	2.930	149	0.630	2.950
108	0.640	2.930	150	0.530	2.970
109	0.670	3.050	151	0.430	2.990
110	0.670	3.050	152	0.450	2.980
111	0.670	3.020	153	0.450	2.990
112	0.660	3.150	154	0.510	2.930
113	0.640	3.040	155	0.510	2.910
114	0.620	3.040	156	0.500	2.930
115	0.430	2.970	157	0.260	3.040
116	0.610	3.070	158	0.770	3.040
117	0.500	3.090	159	0.760	3.090
118	0.500	3.090	160	0.760	3.050
119	0.490	3.070	161	0.720	3.030

Table Appendix D-2 (Continued)

ID	MAH	P_MAH	ID	MAH	P_MAH
120	0.210	3.160	162	0.760	3.020
121	0.240	3.190	163	0.340	3.180
122	0.630	3.120	164	0.340	3.180
123	0.670	3.010	165	0.340	3.180
124	0.240	3.100	166	0.230	3.000
125	0.820	2.920	167	0.230	3.010
126	0.820	2.930	168	0.230	3.020
169	0.240	3.030	211	0.380	3.030
170	0.290	3.100	212	0.380	3.030
171	0.220	3.100	213	0.380	3.010
172	0.230	3.090	214	0.460	3.020
173	0.230	3.090	215	0.450	2.930
174	0.300	2.950	216	0.450	2.930
175	0.540	2.920	217	0.460	2.940
176	0.540	2.990	218	0.590	2.940
177	0.120	3.040	219	0.630	2.940
178	0.080	3.080	220	0.740	2.960
179	0.400	3.150	221	0.760	2.970
180	0.400	3.230	222	0.160	2.990
181	0.400	3.230	223	0.180	2.880
182	0.400	3.230	224	0.180	2.880
183	0.490	3.120	225	0.250	2.920
184	0.400	3.230	226	0.250	3.030
185	0.500	2.970	227	0.250	3.030
186	0.500	2.970	228	0.170	2.920
187	0.580	2.980	229	0.070	2.990
188	0.490	3.020	230	0.160	2.980
189	0.370	3.050	231	0.220	3.000
190	0.370	3.280	232	0.230	3.020
191	0.700	3.100	233	0.230	3.020
192	0.640	3.110	234	0.600	3.020
193	0.600	3.180	235	0.530	3.080
194	0.680	3.100	236	0.620	2.920
195	0.380	3.020	237	0.680	3.040
196	0.470	2.990	238	0.650	3.070
197	0.490	3.020	239	0.710	3.080
198	0.460	3.010	240	0.020	3.030
199	0.630	3.130	241	0.490	2.850
200	0.630	3.130	242	0.290	3.000

Table Appendix D-2 (Continued)

ID	MAH	P_MAH	ID	MAH	P_MAH
201	0.550	3.200	243	0.430	3.090
202	0.500	3.240	244	0.130	2.930
203	0.760	2.960	245	0.130	2.920
204	0.130	2.900	246	0.160	2.990
205	0.130	2.880	247	0.410	2.970
206	0.130	2.890	248	0.220	2.970
207	0.630	3.200	249	0.500	2.920
208	0.500	3.010	250	0.580	2.930
209	0.530	3.060	251	0.680	2.940
210	0.230	3.010	252	0.630	3.060

ID	MAH	P_MAH	ID	MAH	P_MAH
253	0.630	3.070	271	0.260	3.070
254	0.390	3.190	272	0.890	3.150
255	0.390	3.190	273	0.650	3.120
256	0.450	3.190	274	0.650	3.130
257	0.310	2.940	275	0.670	3.120
258	0.680	3.140	276	0.710	3.130
259	0.680	3.120	277	0.710	3.140
260	0.790	3.200	278	0.720	3.140
261	0.260	2.940	279	0.220	3.230
262	0.260	2.940	280	0.610	3.290
263	0.330	3.030	281	0.730	3.250
264	0.280	3.010	282	0.700	3.170
265	0.330	3.030	283	0.700	3.170
266	0.630	3.110	284	0.710	3.230
267	0.650	3.140	285	0.710	3.260
268	0.730	3.100	286	0.670	3.260
269	0.750	3.230	287	0.730	3.260
270	0.730	3.290	288	0.710	3.270

Note ID = number of sample P_MAH = p-value of Chi –square

Table Appendix D-3 Test of normality of the study variables (n = 288)

Variables	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Overall	.224	.144	-.098	.286
SORG	-.194	.144	-.600	.286
SAUTH	-.122	.144	-.606	.286
SNcom	-.307	.144	-.928	.286
SWORK	.093	.144	-.365	.286
SSYM	.017	.144	-.581	.286
SBURN	-.110	.144	-1.420	.286

Table Appendix D-4 Correlation matrix of the study variables (n = 288)

Variable	Overall	SORG	SAUTH	SNcom	SWORK	SSYM	SBURN
Overall	1						
SORG	.208**	1					
SAUTH	.112	.709**	1				
SNcom	.138*	.539**	.732**	1			
SWORK	.108	-.555**	-.699**	-.650**	1		
SSYM	.437**	-.372**	-.482**	-.555**	.476**	1	
SBURN	.401**	-.402**	-.573**	-.467**	.418**	.166**	1

* = p < .05, ** = p < .01

Table Appendix D-5 Testing for multicolinerity of the predictor variables (n = 288)

Variable	Collinearity Statistics	
	Tolerance	VIF
Overall	.495	2.021
SORG	.444	2.254
SAUTH	.289	3.458
SNcom	.320	3.124
SWORK	.410	2.437
SSYM	.389	2.570

Table Appendix D-6 Variance explain

variable	r-square
F4	1.297
F5	.279
F6	1.211
DD	.849
CP	.272
EE	.300
PR	.166
SS	.231
BP	.555
IC	.308
DP	.239
MTNC	.103
NC	.425
RT	.271
MF	.276
PD	.566
PA	.216
AA	.660
PI	.410
WR	.526
DL	.792
DA	.163
VN	.395
SA	.603
MTA	.259
UA	.452

APPENDIX E

Descriptive data

Table Appendix E-1 Descriptive data

Behavior	*N*(%)				
	Never	Now and then	Monthly	Weekly	Daily
1. Someone withholding information which affects your performance	91(31.60)	165(57.29)	31(10.76)	1(0.35)	0(0.00)
2. Being humiliated or ridiculed in connection with your work	158(54.86)	130(45.14)	0(0.00)	0(0.00)	0(0.00)
3. Being ordered to do work below your level of competence	101(35.07)	179(62.15)	6(2.08)	1(0.35)	1(0.35)
4. Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	155(53.82)	130(45.14)	2(0.69)	1(0.35)	0(0.00)
5. Spreading of gossip and rumors about you	95(32.99)	190(65.97)	1(0.35)	2(0.69)	0(0.00)
6. Being ignored, excluded or being isolated from others	192(66.67)	95(32.99)	1(0.35)	0(0.00)	0(0.00)
7. Having insulting or offensive remarks made about your person (i.e. habits and background), your attitudes or your private life	242(84.03)	44(15.28)	2(0.69)	0(0.00)	0(0.00)
8. Being shouted at or being the target of spontaneous anger (or rage)	91(31.60)	190(65.97)	6(2.08)	1(0.35)	0(0.00)
9. Intimidating behavior such as finger-pointing, invasion of personal space, shoving, blocking/barring the way	255(88.54)	33(11.46)	0(0.00)	0(0.00)	0(0.00)
10. Hints or signals from others that you should quit your job	245(85.07)	43(14.93)	0(0.00)	0(0.00)	0(0.00)
11. Repeated reminders of your errors or mistakes	143(49.65)	143(49.65)	2(0.69)	0(0.00)	0(0.00)
12. Being ignored or facing a hostile reaction when you Approach	153(53.13)	135(46.87)	0(0.00)	0(0.00)	0(0.00)
13. Persistent criticism of your work and effort	111(38.54)	175(60.76)	2(0.69)	0(0.00)	0(0.00)
14. Having your opinions and views ignored	65(22.57)	206(71.53)	17(5.90)	0(0.00)	0(0.00)

Table Appendix E-1 (Continued)

Behavior	*N*(%)				
	Never	Now and then	Monthly	Weekly	Daily
15. Practical jokes carried out by people you don't get along with	139(48.26)	147(51.04)	1(0.35)	1(0.35)	0(0.00)
16. Being given tasks with unreasonable or impossible targets or Deadlines	118(40.97)	165(57.29)	4(1.39)	1(0.35)	0(0.00)
17. Having allegations made against you	166(57.64)	119(42.32)	3(1.04)	0(0.00)	0(0.00)
18. Excessive monitoring of your work	121(42.01)	153(53.13)	13(4.51)	1(0.35)	0(0.00)
19. Pressure not to claim something which by right you are entitled to (e.g. sick leave, holiday entitlement, travel expenses)	195(67.71)	90(31.25)	3(1.04)	0(0.00)	0(0.00)
20. Being the subject of excessive teasing and sarcasm	236(81.94)	52(18.06)	0(0.00)	0(0.00)	0(0.00)
21. Being exposed to an ummanageable workload	86(29.86)	146(50.89)	38(13.19)	18(6.25)	0(0.00)
22. Threats of violence or physical abuse or actual abuse	260(90.28)	28(9.72)	0(0.00)	0(0.00)	0(0.00)

BIOGRAPHY

NAME	Khemika Napattaradechanon
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