LATERAL VIOLENCE RESPONSE TRAINING FOR NURSING STUDENTS

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ABSTRACT

Lateral violence among nurses is a pervasive problem contributing to deleterious consequences for targets, work environments, patient outcomes, and the nursing profession. Newly licensed nurses are at a disadvantage to respond effectively to lateral violence and may be more likely to be targeted. Thus, response training prior to entering the nursing workforce may increase their ability to manage lateral violence they encounter as newly licensed nurses. There is a paucity of interventional research aimed at educating nurses on effective and appropriate responses to lateral violence and no studies involving nursing students. This study examines the effect of an educational intervention to increase nursing students' self-efficacy in responding to lateral violence. Cognitive Behavioral Therapy, based on Social Cognitive Theory, was used to guide the format of the intervention and development of the measurement instrument. A time-series, randomized, cluster design with intervention and control groups, was used to increase rigor over existing studies. Statistically significant increase in participant-reported self-efficacy among the intervention group was determined using paired t-tests. Follow-up data indicate potential for the long-term benefits of this intervention on self-efficacy in responding to lateral violence. Clinical significance was also demonstrated by overall increases in all quartiles among the intervention group.

These results indicate potential for use among future nursing students. Future research should include longitudinal follow-up to determine the long term effects of this intervention, testing among nursing students at different types of institutions, and refinement of the measurement instrument.

APPROVAL PAGE

The faculty listed below, approved by the Dean of the School of Nursing, have examined a dissertation titled "Lateral Violence Response Training for Nursing Students", presented by Ericka J. Sanner-Stiehr, Candidate for the Doctor of Philosophy Degree, and certify that in their opinion it is worthy of acceptance.

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CHAPTER 1

INTRODUCTION

Lateral violence (LV), a form of workplace bullying among nurses, is a prevalent and serious problem in health care settings. Targets of LV may experience negative psychological consequences such as depression, anxiety, (Demir & Rodwell, 2012; Edwards & O'Connell, 2007; Hauge, Skogstad, & Einarsen, 2010) helplessness, and loss of self-esteem (Normandale & Davies, 2002). LV also contributes to high staff turnover rates and attrition from the profession among newly graduated nurses (Booth, 2011). The current nursing shortage is projected to worsen dramatically within the next 10-15 years, as the Baby Boomer generation ages and older nurses retire from the profession. As many as 55% of currently working nurses are 55 years of age or older, nearing retirement age (American Association of Colleges of Nursing, 2014). Younger and newly licensed nurses will be needed to replace the generation of retiring nurses, as well as care for the increasing aging population. Loss of newly licensed nurses from the profession will only exacerbate the national nursing shortage. However, attrition due to LV may be avoidable, if newly licensed nurses are able to anticipate LV behaviors and are prepared to respond to them effectively.

Nursing school curricula may fail to address this subject and though many nursing students encounter LV during clinical rotations in school (Curtis, Bowen, & Reid, 2007; S. P. Thomas & Burk, 2009), others experience it for the first time as newly licensed nurses after entering the nursing workforce. Behavioral responses are generally learned through exposure to situations; it is not possible to develop a response to an absent stimulus. Thus, newly licensed nurses are underprepared to respond to LV, setting them up to develop maladaptive coping mechanisms in response to their initial experience. It is essential for this preparation

to occur during nursing school/prior to graduation and entering the workforce, in order to avoid the negative psychological consequences.

Cognitive Behavior Therapy and Social Skills Training

Newly licensed nurses often report a lack of knowledge and confidence in effectively responding to LV. Social Skills Training (SST), a form of Cognitive Behavior Therapy (CBT), may be a theoretically appropriate method of addressing the gap in knowledge and increasing confidence in their ability to perform these behaviors. SST involves the reciprocal and integrative relationship between three variables: (1) *social perception*: the ability to interpret social cues accurately, (2) *social problem solving*: the ability to correctly identify a situation and formulate an appropriate response, and (3) *behavioral competence*: the ability to perform the appropriate social response in that given situation (Strong Kinneman & Bellack, 2012, p. 252). All three variables are based on experience with particular situations, as individuals are likely to be able to recognize, label, and formulate appropriate responses to situations they have never encountered. When individuals encounter new situations, lack knowledge from previous experience, and/or do not implement responses appropriately, social dysfunction results (Bellack et al., as cited in Strong Kinneman & Bellack, 2012, p. 253).

Learning responses to new situations or learning new responses to known situations required a methodical approach. The essential steps in SST are behavioral instruction, behavioral modeling, behavioral rehearsal, reinforcement, shaping, and generalization of learning (Strong Kinneman & Bellack, 2012, p. 253). The first step, behavioral instruction, educates participants in the broken down components of a social interaction. Modeling, the second step, is important, as it provides participants with a behavioral exemplar to imitate.

Next, participants rehearse the behaviors they have learned about and been exposed to, translating their cognitions into behavioral performance. Reinforcement can come in the form of feedback from those providing the education, giving suggestions for improvement or praise for appropriate performance. Last, shaping and generalization of learning help participants in SST to understand appropriate contexts of their learned behaviors. This last step can take place during discussion or debriefing, following completion of the previous steps.

Nursing students can learn appropriate responses to LV through SST. This forum provides the requisite knowledge, opportunity to rehearse behaviors, and discussion about the situational context in which to implement these new behavioral responses.

Purpose

The purpose of this research was to determine the effect of a situation-specific behavioral rehearsal intervention on self-efficacy related to the ability to respond to LV among undergraduate baccalaureate nursing students in their final academic year.

Aims

Behavioral rehearsal aimed at increasing self-efficacy in responding to LV has not been attempted among the nursing student population. Thus, the specific aims of this study are: (1) to determine the effectiveness of this intervention on a nursing student population and (2) to determine both the immediate and longitudinal effects of this intervention on participants' self-efficacy in responding to LV appropriately.

Research Question

The research question associated with this study is: What is the impact of a cognitive-behavioral rehearsal intervention on nursing students' perceived self-efficacy in responding effectively to LV?

Definition of Terms

Lateral violence (LV) is a set of bullying behaviors occurring exclusively between nurses, intended to belittle, undermine, and/or humiliate a specific targeted individual.

Newly licensed nurses are defined as nurses within their first year of professional practice, following graduation from a nursing program.

Nursing students are defined, for the purposes of this study population, as students enrolled in their final academic year of a baccalaureate nursing program (seniors). Nursing students enrolled in coursework prior to the final academic year (juniors or sophomores) were not included in this study population.

Scale to Address Disruptive Physician Behavior-Revised (SADBS-R) is the adapted instrument which were used to measure participants' self-efficacy in addressing common LV behaviors in this study. The SADBS© (Saxton, 2010) has been previously used to measure peri-operative nurses' self-efficacy in addressing disruptive physician behavior.

Self-efficacy is defined most broadly as one's self-belief or confidence in his or her abilities. Self-efficacy is often measured in terms of one's overall self-belief regarding life in general. For the purposes of effecting specific behavioral changes, self-efficacy is a situation or skill-specific self-belief. This research operationalized and measured self-efficacy, specific to responding to LV.

Skills Training is a therapeutic paradigm which involves planned and systematic teaching of specific behaviors needed and consciously desired by the individual in order to function effectively in a situation.

Social Skills are normative, socially sanctioned interpersonal behaviors which "help individuals develop meaningful relationships, have smoother interactions with the people in their lives, have effective work relationships, get their needs met, and generally have pleasant experiences with others" (Twohig & Dehlin, 2012, p. 251).

Social Skills Training is thus defined, for the purposes of this research, as systematic teaching of behaviors needed and desired by the individual in order to effect smoother interactions with colleagues and effective work relationships.

Assumptions

1. Social skills training impacts perceived self-efficacy in interpersonal interactions, specific to LV.
2. Social skills training, as operationalized in this research, will be effective among the specific population of nursing students.
3. Participants will participate and engage in the intervention appropriately.
4. Participants will respond truthfully to questions on the study instrument.

CHAPTER 2

REVIEW OF LITERATURE AND BACKGROUND

Origins and Historical Context

Bullying in the workplace first received attention in the literature as a subject worthy of inquiry in the 1980's. Heinz Leymann, a Swedish professor and psychologist, described a phenomenon known as mobbing, wherein groups gang up to terrorize an individual (Leymann, 1990, 1996). Leymann described mobbing behaviors as social manipulations such as spreading rumors to stigmatize or ruin an individual's reputation, verbal affronts such as continued criticisms and raised voice, social isolation, undermining an individual's work performance, and violence or threats of violence (Leymann, 1990, p. 121). Leymann concluded that mobbing affected almost every aspect of the targeted individual's life both psychologically and economically, since many times targets either quit voluntarily or were forced to quit. Targets experienced psychological symptoms such as despair, rage, hopelessness, anxiety, depression, psychosomatic illnesses as well as alarming suicide rates (Leymann, 1990, pp. 122–123). Once Leymann's troublesome findings were published, research and the reflective literature quickly evolved to recognize that these same mobbing behaviors were not restricted to groups; individuals were just as likely to target other individuals without the protection of the pack alliance. This phenomenon conceptually developed into what is known as workplace bullying in contemporary literature.

Workplace bullying is defined in terms of three main factors: work-related, person-related, and physically intimidating behaviors. Work-related behaviors are the most subtle in nature and include withholding information needed to perform one's job, being assigned work below one's competence level, having one's opinions ignored, being given

unreasonable deadlines for work, excessive monitoring (micromanaging) of one's work, being assigned an unmanageable workload, and being pressured not to claim something which, by right, is yours such as sick leave, holiday pay, and travel expenses (Einarsen, Hoel, & Notelaers, 2009, p. 32). Person-related behaviors include being humiliated or ridiculed in connection with your work, having responsibility removed and replaced with unpleasant or trivial tasks, spreading rumors and gossiping, being ignored or excluded (social isolation), insults, offensive remarks, pressure to quit one's job, repeated reminders of one's mistakes, being ignored or hostility when approaching someone, practical jokes by someone who is not a friend, accusations/allegations, and excessive teasing/sarcasm (Einarsen et al., 2009, p. 32). Physically intimidating behaviors are the most overt including being shouted at or the target of spontaneous anger, intimidating by finger pointing, blocking one's way, invasion of one's space, and shoving, and threats of violence or actual violence (Einarsen et al., 2009). These listed behaviors are measured on the Negative Acts Questionnaire-Revised (Einarsen et al., 2009) which is generally considered the gold standard in measuring workplace bullying. Workplace bullying can have negative and serious consequences to the targeted individual's psychological well-being, including depression, anxiety, helplessness, and powerlessness over their situation (Branch, Ramsay, & Barker, 2013; Demir & Rodwell, 2012; Hauge et al., 2010).

Lateral Violence - Workplace Bullying Among Nurses

Lateral violence (LV) differs conceptually from workplace bullying but lack of consistent terminology in the literature can make distinguishing between concepts problematic (Cleary, Hunt, & Horsfall, 2010; Johnson, 2009). Most often, bullying among nurses is referred to as horizontal violence or LV, which are considered synonymous. These

terms refer to bullying behaviors between nurses, rather than between individuals of differing credentials or levels of power within an organization which can be the case with workplace bullying. LV is characterized by behaviors such as verbal affronts (raised voice, persistent criticism), gossiping, infighting (clique formation to the exclusion of others), scapegoating (blaming others for mistakes they did not make), sabotaging behaviors, withholding information necessary to perform one's job, undermining another's performance or success, failure to respect privacy, broken confidences, and non-verbal affronts (making faces, sighing heavily, eye-rolling) (Almost, 2006; Embree & White, 2010; Longo & Sherman, 2007). The physically intimidating behaviors listed as constructs of workplace bullying are remarkably absent from the LV literature. This may be due to the fact that nursing is historically and currently a female-dominated profession. Females tend to favor socially manipulating techniques over physical violence in bullying (Salin & Hoel, 2013).

Estimates of the prevalence of LV range from 31% (Laschinger, 2012) to as high as 85% (Wilson, Deidrich, Phelps, & Choi, 2011) among nurses throughout their careers. Measuring more exact prevalence rates is largely due to underreporting and problematic for two reasons. First, targets often fear retribution from the perpetrator, known as the whistleblower effect, causing them to avoid reporting (Jackson et al., 2010; Peters et al., 2011). Fear of retribution is increased when the perpetrator occupies a position of organizational power such as a manager or when the manager and perpetrator have a known alliance (Lindy & Schaeffer, 2010; Rocker, 2012). Research suggests that managers are often perpetrators of workplace bullying (Vessey, Demarco, Gaffney, & Budin, 2009), which can result in a toxic work environment. Second, a lack of managerial or administrative support for targets provides a deterrent to reporting incidences (Lewis, 2008). Managers often side

with perpetrators (Lindy & Schaeffer, 2010; Rocker, 2008; Tomey, 2009), even when organizational policy directs them to support targets. Often, targets report experiencing discipline themselves when accusations are turned around onto them (Rocker, 2012). Interestingly, Leymann's pioneering work in mobbing described a similar lack of managerial regard and support for individuals (1990). This chronic problem suggests that managerial behavior may be either: (1) unlikely to change or (2) a point on which to focus interventions. Thus, lack of support for targets contributes to the cycle of LV.

Antecedents

The causes of LV are varied; personal characteristics, organizational culture, and work environment are all linked to contribute to the incidence and prevalence of LV (Embree & White, 2010). Organizations which promote nurse empowerment are less likely to foster work environments where LV is prevalent. Lack of resources within an organization, such as lack of equipment and staffing, can result in stressful situations, giving rise to higher incidences of LV. Personal factors may contribute to targets developing maladaptive coping strategies to LV. Previous exposure to LV may lead to decreased self-esteem, depression, and anxiety which can make them even more appealing and easier targets in the future (Demir & Rodwell, 2012). Previous exposure can also prompt individuals to become perpetrators of LV themselves, in an offensive attempt at self-protection from further persecution. Thus, similarly to lack of support for targets, previous exposure can be considered both an antecedent and consequence, perpetuating the cycle.

Consequences

The consequences of LV are as diverse as its causes. The consequences for targets can be both psychological and physical. Depression, anxiety, inability to sleep (Demir &

Rodwell, 2012; Edwards & O'Connell, 2007; Hauge et al., 2010; Normandale & Davies, 2002), headaches, persistent thoughts about the perpetrator, loss of appetite, hypertension, nausea/vomiting, loss of self-esteem and self-worth, and increased alcohol/tobacco use (Normandale & Davies, 2002) are among commonly reported negative effects of LV. These negative effects can persist for months or even years after the LV behaviors end, with targets experiencing symptoms of post-traumatic stress (Tehrani, 2004). These consequences are, in effect, multiplied for those targets who experience LV again, as a result of their psychological symptoms.

LV and lack of managerial support are also linked to increased staff turnover (Jackson, Clare, & Mannix, 2002; Laschinger, 2012; Li & Jones, 2013; MacKusick & Minick, 2010), creating a financial burden for organizations. Replacement of nursing staff costs the average hospital approximately $300,000 annually (Hunt, 2009). Nursing staff turnover can also have detrimental effects to patient care in the forms of loss of expertise, understaffing, and decreased quality of care (Hunt, 2009; Jones & Gates, 2007; The Joint Commission, 2008). In response to these concerns and The Joint Commission's 2008 appeal to organizations to address these behaviors, healthcare organizations have implemented protocols for managing reports of LV and other workplace bullying and implemented zero-tolerance policies. However, over a decade of literature indicates the ineffectiveness of these policies in decreasing LV, largely due to underreporting issues discussed previously. Thus, it is necessary to approach LV from a different angle.

Newly Licensed Nurses

LV has been linked to lack of power and empowerment in the hierarchical structure of health care which places nurses as subordinates (Dong & Temple, 2011; Matheson &

Bobay, 2007; Purpora, Blegen, & Stotts, 2012; Roberts, DeMarco, & Griffin, 2009). Newly licensed nurses, as the least powerful group of nurses, are at particular risk for experiencing LV. Negative psychological consequences such as depression, anxiety, decreased self-worth, are also prevalent among this group, leading to decreased productivity and high rates of staff turnover and attrition from the profession within the first year of practice (Berry, Gillespie, Gates, & Schafer, 2012; Laschinger, 2012; Laschinger, Grau, Finegan, & Wilk, 2010; Read & Laschinger, 2013). Furthermore, nurses learn responses to LV through experience (Embree & White, 2010). Lack of exposure and developed responses places newly licensed nurses at increased disadvantage when LV occurs.

Nursing Students

Nursing students also encounter LV during their clinical rotations while in school (Curtis, Bowen, & Reid, 2007; Thomas & Burk, 2009); however, nursing school curricula fail to adequately address this subject. Nursing students may also be reluctant to report instances of LV directed toward them out of fear of retribution from the staff nurses or not wanting to appear as weak (Longo, 2007; Thomas & Burk, 2009). LV has been described as a cycle (Daiski, 2004) and learned behavior (Altman, 2010) with older, experienced nurses as the most likely perpetrators (Vessey et al., 2009). Thus, it is essential to prepare nurses to effectively respond to LV prior to entering the workplace where they are likely to encounter it (Thomas, 2010).

Previous Studies

Nurses do develop strategies for managing LV, in the absence of administrative and managerial support. MacIntosh (2006) found that nurses often employed several variations of social support to maintain their emotional health, when reporting attempts failed to bring a

stop to the behaviors. Social support such as talking to family and friends may be useful as a coping strategy but it is a reactive response to damage which has already been sustained. Among the 21 participants in this study, none reported having directly confronted the perpetrator, essentially leaving the behaviors unaddressed. If the LV behaviors continue, targets' self-worth is also likely to deteriorate over time. Thus, a proactive approach to managing LV, preparing newly licensed nurses to respond to perpetrators prior to entering the workforce is essential in preventing the sequelae of psychological and emotional health issues which can ensue.

In a cross-sectional, quasi-experimental study by Stagg, Sheridan, Jones, and Speroni (2011), staff nurses were provided an educational intervention and response rehearsal, with the aim of reducing LV behaviors on their units. The results of this study showed that participants indicated increased knowledge of LV behaviors. However, since this study did not involve repeat measures, the impact of this intervention on LV was not determined. The impact of the response rehearsal was also not among variables measured.

Cognitive rehearsal, a form of cognitive behavior therapy, was utilized among newly licensed nurses to increase their self-efficacy in responding to LV (Griffin, 2004). Participants in this study were able to practice appropriate responses to LV in a safe and structured environment. Since the intervention implemented by Griffin involved rehearsing responses or behaviors, it may be more accurately referred to as behavioral response rehearsal. The responses were aimed at addressing bullies directly, rather than training in reporting methods or psychological health preservation. All participants reported increased self-efficacy in responding to LV. Longitudinal follow-up revealed that participants who had implemented the responses learned in the training reported either decrease or complete

elimination of LV behaviors directed toward them. Follow-up measures also showed significantly lower staff turnover rates among participants, as compared to national averages at that time. Thus, this intervention successfully addressed the main problems associated with LV among novice nurses and can be considered a feasible intervention to test among nursing students.

Theoretical Background

Oppressed Group Behaviors

Lateral violence (LV) has most often been described in the literature as a manifestation of oppression (Dong & Temple, 2011; Matheson & Bobay, 2007; Purpora et al., 2012; Roberts et al., 2009). The theory of Oppressed Group Behaviors describes the process by which a group which is unable to fight its oppressor, eventually turn their hostilities on one another (Freire, 1970). The group's collective loss of esteem regarding their own unique qualities, which differ from those of their oppressor, is a pivotal step in the process of oppression. Within this theory, nursing has been described as oppressed by medicine and medical hubris. Because medical professionals are given more organizational and social power than nurses both currently and historically, nurses are unable to overcome their oppressor. This has resulted in LV becoming enculturated in the nursing profession over time.

Nurse as Wounded Healer

Nurse as Wounded Healer (NWH) theory (Conti-O'Hare, 2002) presents a theoretical framework useful in describing the persistent and harmful residual effects experienced by targets of LV (Christie & Jones, 2014; Sanner-Stiehr & Ward-Smith, 2013). NWH theory explains that if an individual experiences an emotional trauma and appropriate steps are not

taken to address it at the time, the negative effects can be sustained, creating a deleterious worldview. As long as this worldview persists, it will continue to have a profound negative emotional impact on that individual. However, NWH theory is not a closed circuit of hopelessness. The Q.U.E.S.T. model associated with this theory outlines steps which can be taken to confront the past trauma and eventually transcend it. Completing these steps allows the individual to return to baseline emotional comfort. The emotional and psychological traumas of experiencing LV can pervade many aspects of a target's life and the effects can linger long afterward (Demir & Rodwell, 2012; King-Jones, 2011; Lovell & Lee, 2011; Reknes et al., 2014). This theory would be appropriate in guiding research focused on the outcomes of LV. However, targets lacking the ability to respond effectively may sustain psychological traumas and go on to become perpetrators of LV, themselves. Thus, this theory may be useful for framing both reactive and proactive approaches to addressing LV.

Learned Behavior

The cycle of LV may also be explained by the theory of Learned Behavior (Altman, 2010). This theory describes learning as a construction of meanings connected to behaviors, based on experiences (Novak, 1998 as cited in Altman, 2010, p. 25). As applied to LV, newly licensed nurses may witness or experience LV behaviors; if there are no consequences for the perpetrators and/or there is social reinforcement for those behaviors, the LV may be accepted as normal. Worse yet, the meaning assigned to LV may be that targets have no power over their circumstances, especially if the behaviors go unaddressed and persist. However, framing LV as a learned behavior inherently suggests two useful possibilities: (1) If LV behaviors can be learned, they may also be un-learned and (2) appropriate responses to LV can also be learned.

Social Cognitive Theory

Social Cognitive Theory (SCT) (Bandura, 1997) is useful for guiding research aimed at behavioral response training and provides a more in-depth approach to learning theory. According to SCT, human agency is the ability to purposefully exert influence over one's circumstances (Bandura, 1989). Within a social situation, there exist the three major constructs of environment, person, and behavior, a process known as reciprocal determinism (Bandura, 1978). All three constructs influence one another so that change in one cannot be mutually exclusive of the other two. Thus, by changing his or her own behaviors, an individual may influence both the behaviors of others and the environment.

For the purposes of interventional behavioral research, the construct of person is the focus. SCT describes self-efficacy, or belief in one's abilities, as one of the main influences on whether an individual is able to change/adopt a behavior (Bandura, 1997). Self-efficacy is impacted by cognitions, motivation, affective states, and actions (Bandura, 1989). These four constructs also exert reciprocal influence over one another. Relationships between these constructs are complex. Mastery of a skill positively influences self-efficacy (Bandura, 1989, p. 1179) and positively mediates motivation since individuals are more likely to voluntarily engage in behaviors they believe they are capable of than those which they believe they are not (Bandura, 1989, p. 1180). Conversely, emotional arousal which can result from encountering a stressful situation, negatively moderates behavior the relationships between all four main constructs (Bandura, 1997, pp. 109–110), decreasing behavior performance, cognitions, and the likelihood that the individual will seek out this situation in the future. Thus, implementing interventions guided by SCT, emotional arousal is mitigated, allowing learners to master skills in an unthreatening environment.

Though each construct impacts one another for an overall effect on self-efficacy, the order and extent to which they impact one another is likely individual and situation-specific. Regardless of the order of impact, relationships between all four constructs tend to be positive (Bandura, 1997). Thus, each construct can serve as a main variable or mediator, affording researchers the opportunity to operationalize all four variables simultaneously.

While self-efficacy can be measured as a general variable, particularized self-efficacy refers to one's self-belief about specific activities (Bandura, 1997, p. 40). Particularized self-efficacy is formulated by drawing upon previous experience, comparing the skills known to be necessary to perform this activity to the skills they believe themselves to possess. A nurse who has high self-efficacy about his or her clinical skills as a nurse may have low self-efficacy in his or her ability to confront a perpetrator or otherwise address LV effectively. Thus, interventions using SCT as a framework and aimed at increasing self-efficacy, must tailor interventions and measurement to situation-specific skills.

Previous Studies Utilizing SCT in Nursing Education

The use of simulated clinical scenarios in nursing education has become increasingly common. SCT serves as the theoretical basis for simulated clinical scenarios, involving all constructs of person, behavior, and environment. Schiavenato (2009) suggests that simulation, which is a reproduction of a particular context, contains an inherent element of intention to learn or educate (p. 388). Simulated scenarios allow students to translate their cognitions into clinical behaviors, while in a structured, safe, and non-threatening environment. Simulations are also situation-specific, allowing nursing students to increase particularized self-efficacy. Because cognitions can be converted into behaviors without the threat of incurring patient harm, the emotional arousal which occurs in real clinical settings

with real patients, is lifted. Thus, students are able to attain mastery of skills, thereby increasing positive affect and motivation and, ultimately, their self-efficacy pertaining to that specific skill set.

The utility of simulated clinical scenarios has been recognized by researchers, wishing to increase students' particularized self-efficacy (Robb, 2012). Bambini and associates (2009), found that participating in simulations for post-partum maternal assessments and patient education significantly increased students' confidence (self-efficacy) in their abilities to perform these behaviors (Bambini, Washburn, & Perkins, 2009). This study used a mixed-methods, repeated measures design with pre and post-testing with Bandura's SCT as a theoretical basis. The quantitative instrument in this study had not been implemented previously but psychometric properties included a Cronbach's $\alpha = 0.817$ (pre-test) and 0.858 (post-test) and content validity was determined by an expert panel (Bambini et al., 2009, p. 80). Responses were scaled on a 10 point Likert-type scale, asking about participants' confidence in performing the simulated behaviors which included communication training (Bambini et al., 2009, p. 81). Items from the instrument are not explicitly stated but qualitative data presented support the authors' assertions of increased self-efficacy among participants.

Goldenberg and associates (2005) also tested the use of simulated clinical scenarios to increase nursing students' self-efficacy (Goldenberg, Andrusyszyn, & Iwasiw, 2005). This study was also guided by the SCT framework, and used a new instrument using Likert-type scaling for responses. This instrument was piloted, content validity was confirmed by an expert panel, and internal reliability was determined at Cronbach's $\alpha = 0.97$. Goldenberg and associates (2005) integrated role play in the simulations, which may differ from typical

simulation performed with mannequins, since role play involves participants interacting with one another (p. 310). During the intervention, instructors monitored role play and give feedback as appropriate, a fundamental tenet of SST. Self-efficacy was significantly increased on the post-test as compared to pre-testing in all teaching components except one (Goldenberg et al., 2005, p. 312). However, this component in which self-efficacy was not increased involved patient care planning, a skill which requires time, that was not built in to the cross-sectional study design. Thus, this study also supports the use of simulations and role play in increasing nursing students' particularized self-efficacy.

Finally, Wagner and associates (2009) used clinical simulation to increase nursing students' self-efficacy related to post-partum maternal assessment. Students participated in simulations to learn specific assessments and educational methods before performing these tasks with actual patients. Afterward, these students were given constructive feedback on their performances. The student participants completed a post-test survey to report their levels of confidence and satisfaction related to the simulation. Test statistics were not reported in this study but the authors' results indicate that participants reported increased confidence (self-efficacy) in their abilities in assessment and providing patient education (Wagner, Bear, & Sander, 2009, p. 46).

Limitations of Previous Studies

Though Wagner and associates (2009) reported increased self-efficacy in participants' ability to perform the skills practiced in simulation, the lack of pre-testing in the study design limits the interpretation of their results. Additionally, this study used an unknown instrument to measure outcome variables and psychometric properties of this instrument were not reported. The absence of a guiding theoretical framework calls into

question the mere face validity of this instrument. Bambini and associates (2009) and Goldenberg and associates (2005) also used new instruments but psychometric properties were determined and found to be acceptable, with Cronbach's $\alpha = 0.817$ (pre-test) and 0.858 (post-test) (Bambini et al., 2009) and 0.97 (Goldenberg et al., 2005). Both of the latter studies employed SCT as a guiding theoretical framework and used pre-test/post-test designs, supporting assertions that the intervention (simulation) affected the outcome variable, self-efficacy. The principal limitation of each of these studies was the lack of use of a control group. Without a control group, improvement in self-efficacy could have occurred for various reasons, including subject maturation. It is also possible that participants would have reported increased self-efficacy with the standard education, rather than the simulation intervention.

Innovations of this Study

There is a paucity of interventional research focused on LV and no published studies preparing nursing students for the LV they are likely to encounter in the hospital work setting both as students and newly licensed nurses. In addition, though self-efficacy is mentioned in nursing literature with regard to LV, no studies have measured self-efficacy as an outcome variable using a validated and reliable instrument. Despite the limitations of previous studies, as discussed in both Chapters 2 and 3, cognitive-behavioral rehearsal implemented as a simulation holds potential for the purpose of this study. This study adds to the existing body of knowledge by: (1) it measures self-efficacy in relation to LV response, a construct which has not been quantitatively measured in previous studies, (2) it was guided closely by a theoretical framework to ensure accuracy in variables tested, and (3) it used a more rigorous research design than have been implemented previously, yielding more reliable results,

reducing risk of both Type I and Type II errors, and providing sound basis for future educational interventions.

CHAPTER 3

METHODS

Social Skills Training

Despite design flaws in previous studies, response rehearsal, a form of Cognitive Behavioral Therapy (CBT) holds potential as an effective intervention. CBTs are predicated upon Social Cognitive Theory, of which self-efficacy is an essential construct (Bandura, 1997). Social Skills Training (SST), a specialized form of CBT, has been used successfully with individuals who have not developed communication responses or had practice with more complex social interactions to develop appropriate communication patterns (Strong Kinneman & Bellack, 2012; Twohig & Dehlin, 2012). Nursing students who have not yet been exposed to lateral violence (LV) have a deficit in exposure and practice in developing responses to lateral violence which can require more sophisticated communication patterns. This study adds to the existing body of knowledge by: (1) measuring self-efficacy in relation to lateral violence response, a construct which has not been quantitatively measured in previous studies, (2) it was guided closely by a theoretical framework to ensure accuracy in variables tested, and (3) it utilized a more rigorous research design than have been implemented previously, yielding more reliable results, reducing risk of both Type I and Type II errors, and providing sound basis for future interventions.

Research Design

This research utilized a longitudinal, experimental, randomized cluster design. Participants from two baccalaureate nursing programs were randomly assigned to clusters by school affiliation. One cluster received the intervention (intervention group); the other served as the control group (attention-control group). Clustering participants by school affiliation

reduced the risk of contamination between groups by ensuring that the intervention and control groups were as mutually exclusive as possible. Randomization of participants enhanced the rigor of this study by eliminating bias in group assignment based on attributes of groups or individuals within groups which could impact outcome variables (Polit & Beck, 2012, p. 206). Randomization in this study was determined by a coin flip which is appropriate for two-group randomization. Outcome variables can also be influenced by performance bias, participants' inherent desire to perform well (Polit & Beck, 2012, p. 210). This research also implemented a single-blind procedure, wherein the participants were unaware of whether they are in the intervention or control group thus reducing performance bias.

Participant Selection

Participants recruited from two faith-based, baccalaureate, pre-licensure nursing programs within the same urban setting. These study sites were selected based on program attributes and availability, in order to maximize homogeneity among participants. Participants were recruited by a member of the research team who was not responsible for course content, assigning grades, or present during the intervention, during their regularly scheduled class time. Inclusion criteria for participation included membership in the senior classes of two investigator-selected nursing programs, ability to read and write in English, and attendance in class on recruitment days. Students enrolled in an Advanced-Track (AT) program were excluded from recruitment. AT programs allow students holding a previously earned baccalaureate degree to complete the nursing program in a condensed amount of time. Due to this difference in educational background, AT students may have differing

characteristics from students enrolled in traditional programs which, in turn, may have influenced all variables being measured in this study.

Sample and Recruitment

Convenience sampling was utilized to recruit participants for this study. Students attending class on recruitment days had an equal opportunity to participate. Convenience sampling can introduce bias into studies, since those who choose to participate may do so based on a particular set of personal attributes (Polit & Beck, 2012, p. 276). However, convenience sampling is economical and an effective method of maximizing participation. Thus, it was considered to be appropriate for this research.

The recruiter spent 15 minutes at the beginning of class time to discuss the purpose of the study, the participant role, and to review the consent form (Appendix B; Appendix C). Consent forms were provided to all students; study instructions guided students who wished to participate to complete the consent form. Participants had an opportunity to ask questions both at this time and at time of the intervention. Consent forms were signed and collected on the day of distribution; however, participants were given the option to review the consent form and submit it two weeks later at the time of the intervention. Each participant also developed a unique study-specific password. This password allowed pre and post-test data to be correlated, eliminating collection of any identifying data and maintaining confidentiality to the responses. A copy of the consent form was provided for their personal files. An electronic study file was developed by the Principal Investigator (PI) for the purposes of linking the participant to their study number. This file was be maintained on the PI's password-protected personal computer.

Sample size.

Apriori power analysis indicated that 32 participants in each cluster were sufficient to achieve a power of 0.80 with a moderate effect size of 0.35 (Cohen, 1988, p. 311). A total of 41 participants were recruited from the intervention site and 47 participants from the attention-control site, for a total N = 88. This participation was sufficient to meet the requirements of power and effect size. The instrument used in this study contains 10 items and was used in both pre and post-testing, necessitating only 25 participants per cluster in order to validate results.

Human Subjects Considerations

This research underwent a full review and approval process by the Institutional Review Board (IRB) at the PI's University. Following this approval, IRB approval at each of the two study sites was secured. These IRBs routinely oversee nursing research to ensure the ethical treatment of human subjects. The IRB at the PI's University also requires all investigators to be certified in CITI© (*CITI Program*, 2012) training. The CITI program is an agency which provides online training to investigators in biomedical and social sciences research.

Benefits to participants included: increased knowledge, ability, and self-efficacy in responding to LV. Indirect benefits, or benefits to society, included generating new scientific knowledge to help future nursing students and the nursing profession. The only foreseeable risk to participants was possible psychological distress related to distressing event recall, incurred by participation in emotionally-taxing role play scenarios. Participants were instructed to report any distress during the intervention, whereupon the PI was to discontinue their participation and refer them to appropriate resources immediately. Counseling resources

are available at both study sites, at free or reduced rates for students, if participants had experienced psychological distress. During the intervention, no participants either reported or exhibited signs of distress.

Materials

Participants in the intervention group received printed materials, containing the dialogue to be practiced during the intervention (Appendix D). Participants in the attention-control group received printed materials, containing a weekly schedule, list of weekly activities, and instructions for completing the schedule (Appendix E)

Instrument.

The dependent variable, self-efficacy, was measured using an adaptation of the Scale to Address Disruptive Physician Behavior© (SADBS; Saxton, 2010). This scale was previously used to measure peri-operative nurses' self-efficacy in addressing disruptive physician behavior. Factor analysis was performed on this scale to establish its psychometric properties. Content validity was confirmed and a Cronbach's $\alpha = 0.904$ indicated excellent reliability (Saxton, 2010, p. 48). The SADBS© scale includes 10 items, measured on a 10-point Likert-type scale, asking participants to rate their perceived self-efficacy in responding to specific disruptive physician behaviors. Scale steps are arranged in increasing order such that 0 = not confident to 10 = highly confident. Summed scores using this instrument range from 0 - 100. For this research, the SADBS© was adapted by replacing the item stems so that participants were asked how confident they felt in responding to the 10 most common LV behaviors (SADBS-R; Appendix B). Permission to adapt and use the SADBS was obtained (Appendix A).

The fourth assumption of this study was that participants would respond to the instrument items honestly. Violation of this assumption would introduce internal bias into the study; thus it was important to include a social desirability item. This item was selected from a list of such items by Crowne and Marlow (1960) and was considered particularly appropriate for its content. The social desirability item read "I have never deliberately done or said something to hurt someone's feelings" and participants were asked to rate their confidence in this statement on the same 0 – 10 Likert-type scale.

Demographic data collected including age, gender (M/F), previous experience with/exposure to LV (Y/N), and previous education on bullying (Y/N) was reported in aggregate form to describe the population. Previous exposure to/experience with LV and previous training regarding workplace bullying were accounted for as possible covariates during data analysis.

Procedures

One cluster received the intervention; the other served as the control group, thereby enhancing the rigor of the study. Clustering also reduced the risk of participant contamination by ensuring that the intervention and control groups are as mutually exclusive as possible. Clusters were randomly assigned to either treatment or attention control by coin flip.

Intervention Group: At the beginning of the intervention for the intervention group the recruiter explained the study, including the purpose, time requirement, and data to be collected. Each participant then completed the SADBS-R pre-test and provided demographic information. Once all data were collected, the intervention was provided. At the conclusion of the intervention, each participant completed the SADBS-R, providing the first set of post-test data. Participants also completed the SADBS-R three months after the intervention to

assess for longitudinal effects of the intervention on self-efficacy to respond to LV. Participants in the intervention group received a one-hour SST intervention, aimed at developing appropriate and effective responses to LV (Appendix E). This aim was achieved by (1) modeling, (2) role play, and (3), feedback, which are the essential steps of SST. A guided discussion followed the intervention, allowing these participants to describe this experience.

Attention Control Group: At the beginning of the intervention for the control group, the PI explained the study, including the purpose, time requirement, and data to be collected. Each participant then completed the SADBS-R pre-test and provided demographic information. Once all data were collected, the intervention was provided. At the conclusion of the intervention, participants completed the SADBS-R, providing the first set post-test data for this group. Participants in this group also completed the SADBS-R three months after the intervention to assess for longitudinal effects of the intervention on self-efficacy to respond to LV. Participants in this cluster received a one-hour intervention focused on time management as a stress-reduction technique (Appendix F).

Data Collection

Study data included pre and post-test questionnaires, with each study cluster separately maintained. Pre-tests were completed by participants and collected by the PI prior to each intervention. Post-tests were completed by participants and collected by the PI following the conclusion of the intervention. Participants from both clusters also completed the SADBS-R three months after the intervention to assess for longitudinal effects of the intervention on self-efficacy to respond to LV. Scores from the SADBS-R were entered into a cluster-specific database on the PI's personal password-protected computer. Pre and post-

test data were linked, using participants' self-created identifiers. These identifiers were not linked to individual participants.

CHAPTER 4

DATA ANALYSIS

There is a paucity of research testing interventions aimed at reducing lateral violence (LV) and no published studies which focus on educating nursing students about appropriate responses. This scenario results in disadvantages and an inability to respond to the workplace violence that will be encountered as a newly graduated Registered Nurse (RN).

A total of 88 participants completed all study activities; 41 in the intervention group and 47 in the control group. The responses from these participants were hand-entered into study-specific SPSS files and triple-checked for accuracy. All statistical analyses were performed using SPSS 20.0. All demographic items were completed. No study survey item displayed missing data. There were four instances of failure to reply to the social desirability item. The social desirability item was added to the instrument to identify participant bias but was not intended as part of the study data set. Thus, substitute calculation for this data was not performed. Summed scored for individual responses on the SADBS-R were calculated and added to each data set. Higher summed scores reflect greater self-efficacy in responding to LV.

Descriptive Statistics

Intervention Group

Descriptive statistical techniques were used to describe each study population. There were 41 participants in the intervention group. All participants were female; 80.5% (n =33) were between the ages of 20-25 years; 12.2% (n =5) were between the ages of 26-30 years, 4.9% (n =2) were between the ages of 31-35 years; none were between the ages of 36-40 years; and 2.4% (n = 1) were 40 years or older. Previous experience with workplace bullying

was reported by 80.5% (*n* = 33) of participants yet only 1.5% *(n* = 7) reported having received training on workplace bullying.

Attention-Control Group

There were 47 participants in the attention-control group. Females comprised 91.5% (*n* = 43) of this group and males 8.5% (*n* = 4). Age distribution in this group was similar to the intervention group with the majority (78.7%) of participants between the ages of 20-25 years
(*n* = 37); 8.5% between the ages of 26-30 years (*n* = 4); 4.3% between the ages of 31-35 years
(*n* = 2); none between the ages of 36-40 years; and 8.5% of 41 years or older (*n* = 4). Among this group, 40.4% (*n* = 19) reported previous exposure to workplace bullying, while the remaining 59.6% (*n* = 28) had not, and 61.7% (*n* = 29) reported having received previous training about workplace bullying, while the remaining 38.3% (*n* = 18) had not.

Comparison

Age distribution was fairly homogenous between the intervention and attention-control group, with the majority of participants between the ages of 20-25 years. While the intervention group was all female, 8.5% (*n* = 4) of the attention-control group was male. The most striking difference between the two groups was with regard to previous exposure to and training about workplace bullying. A far smaller percentage of the attention-control group reported previous exposure to workplace bullying (40.4%; *n* = 19) as compared to the intervention group (80.5%; *n* = 33) yet a larger percentage reported having received prior training with regard to workplace bullying (61.7%; *n* = 29) as compared to the intervention group (17.5%; *n* = 7).

Measures of Central Tendency

Intervention Group

Mean responses on the pre-test among the intervention group, for the items scaled between 0-10 were between 4.09 and 5.17. However, a wide variation in responses contributed to means, with three items ranging nine points and the remaining seven items ranging 10 points on the 0-10 point instrument scale. Standard deviations ranged from 2.35-3.51 points. Post-test response means were higher than pre-test means, ranging between 6.70 and 7.69 on the 0-10 instrument scale with smaller standard deviations between 1.80 and 2.23 points. This overall increase in scores was reflected in smaller ranges of responses, with only three items receiving a full 10 point range on the post-test. All measures of central tendency for the pre-test and post-test are reported in Tables 1 and 2 below.

Table 1
Intervention Group Pre-Test Measures of Central Tendency

Statistics

		pretest 1	pretest 2	pretest 3	pretest 4	pretest 5	pretest 6	pretest 7	pretest 8	pretest 9	pretest 10
N	Valid	41	41	41	41	41	41	41	41	41	41
	Missing	1	1	1	1	1	1	1	1	1	1
Mean		4.2439	4.2561	4.9024	5.0488	4.3171	4.2439	5.1463	4.0976	5.1707	5.3415
Median		4.0000	4.0000	4.0000	5.0000	4.0000	4.0000	5.0000	3.0000	5.0000	5.0000
Mode		5.00	3.00[a]	3.00	5.00	2.00	5.00	5.00	3.00	5.00	5.00
Std. Deviation		2.35351	2.45235	2.61539	2.77445	3.21278	2.49780	3.06236	2.54760	2.44849	2.69824
Variance		5.539	6.014	6.840	7.698	10.322	6.239	9.378	6.490	5.995	7.280
Range		9.00	10.00	9.00	10.00	10.00	10.00	10.00	10.00	10.00	9.00
Minimum		1.00	.00	1.00	.00	.00	.00	.00	.00	.00	1.00
Maximum		10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

a. Multiple modes exist. The smallest value is shown

Table 2
Intervention Group Post-test Measures of Central Tendency

Statistics

		Posttest 1	Posttest 2	Posttest 3	Posttest 4	Posttest 5	Posttest 6	Posttest 7	Posttest 8	Posttest 9	Posttest 10
N	Valid	47	47	47	47	47	47	47	47	47	47
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		6.4468	7.2766	7.5532	8.0000	9.1277	7.5319	7.8511	7.6809	8.1277	8.2766
Median		6.0000	8.0000	8.0000	9.0000	8.0000	8.0000	9.0000	8.0000	9.0000	9.0000
Mode		5.00	8.00[a]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Std. Deviation		2.57757	2.23317	2.43889	2.41373	10.46239	2.47466	2.61250	2.04415	2.17313	2.19389
Variance		6.644	4.987	5.948	5.826	109.462	6.124	6.825	4.179	4.722	4.813
Range		8.00	8.00	9.00	10.00	77.00	9.00	10.00	7.00	7.00	9.00
Minimum		2.00	2.00	1.00	.00	.00	1.00	.00	3.00	3.00	1.00
Maximum		10.00	10.00	10.00	10.00	77.00	10.00	10.00	10.00	10.00	10.00

a. Multiple modes exist. The smallest value is shown

Attention-Control Group

Mean responses on the pre-test among the attention-control group were between 6.10 and 8.10 on the 0 - 10 instrument scale. Variation in responses included three items ranging eight points and seven items ranging 10 points on the 0 - 10 point instrument scale. Standard deviations ranged from 2.39 and 3.32 points. Post-test response means were only slightly higher than pre-test means, ranging between 6.44 and 9.12 on the 0 - 10 point instrument scale with standard deviations between 2.04 and 2.67 points. Ranges of responses on the post-test were similar to those of the pre-test with two items ranging seven points, two items ranging eight points, three items ranging nine points, and three items ranging 10 points. All measures of central tendency for the pre-test and post-test are reported in Tables 3 and 4 below.

Table 3
Attention-Control Group Pre-Test Measures of Central Tendency

Statistics

		Pretest 1	Pretest 2	Pretest 3	Pretest 4	Pretest 5	Pretest 6	Pretest 7	Pretest 8	Pretest 9	Pretest 10
N	Valid	47	47	47	47	47	47	47	47	47	47
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		6.1064	7.0000	6.7021	7.7872	6.9574	7.0638	7.8723	7.1277	7.7021	8.1064
Median		6.0000	8.0000	7.0000	9.0000	8.0000	8.0000	9.0000	7.0000	8.0000	9.0000
Mode		10.00	8.00[a]	9.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Std. Deviation		2.84555	2.50217	2.39488	2.58706	3.32289	2.77727	2.56750	2.40124	2.50143	2.46042
Variance		8.097	6.261	5.735	6.693	11.042	7.713	6.592	5.766	6.257	6.054
Range		10.00	10.00	8.00	8.00	10.00	10.00	10.00	8.00	10.00	10.00
Minimum		.00	.00	2.00	2.00	.00	.00	.00	2.00	.00	.00
Maximum		10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

a. Multiple modes exist. The smallest value is shown

Table 4
Attention-Control Group Post-Test Measures of Central Tendency

Statistics

		Posttest 1	Posttest 2	Posttest 3	Posttest 4	Posttest 5	Posttest 6	Posttest 7	Posttest 8	Posttest 9	Posttest 10
N	Valid	47	47	47	47	47	47	47	47	47	47
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		6.4468	7.2766	7.5532	8.0000	7.6383	7.5319	7.8511	7.6809	8.1277	8.2766
Median		6.0000	8.0000	8.0000	9.0000	8.0000	8.0000	9.0000	8.0000	9.0000	9.0000
Mode		5.00	8.00[a]	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Std. Deviation		2.57757	2.23317	2.43889	2.41373	2.67375	2.47466	2.61250	2.04415	2.17313	2.19389
Variance		6.644	4.987	5.948	5.826	7.149	6.124	6.825	4.179	4.722	4.813
Range		8.00	8.00	9.00	10.00	10.00	9.00	10.00	7.00	7.00	9.00
Minimum		2.00	2.00	1.00	.00	.00	1.00	.00	3.00	3.00	1.00
Maximum		10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

a. Multiple modes exist. The smallest value is shown

Comparison

The attention-control group scored higher overall on both the pre and post-tests, yet the intervention group showed more significant increases in all measures of central tendency. The intervention group's responses were also more normally distributed on both the pre and post-tests than those of the attention-control group. This difference in distribution may be partially accounted for by the relatively higher reported incidence of receiving prior training about workplace bullying by the attention-control group.

Instrument Reliability

The instrument used to measure participant responses in this study, the SADBS-R, is an adaptation of a previously validated SADBS ©. Previous factor analysis on the SABDS © indicated excellent reliability with a Cronbach's α = 0.904 (Saxton, 2010).

Intervention group

Reliability on the SADBS-R was first examined by determining the effect of social desirability item on the instrument on overall reliability, using both pre-test and post-test responses. Including the social desirability item, the Cronbach's α = 0.927. Without the social desirability item, the Cronbach's α = 0.947 (Table 5). Thus, it was concluded that the participants had not responded in a socially desirable manner, eliminating concern of this bias. Next, reliability of the pre-test and post-test were examined separately. Pre-test reliability was determined at a Cronbach's α = 0.925 and post-test reliability was determined at Cronbach's α = 0.937 on the SADBS-R, excluding social desirability items.

Table 5- Intervention Group Overall Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.947	20

Table 6

Intervention Group Item Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
pretest 1	47.0993	394.380	.667	.731	.891
pretest 2	47.0871	377.055	.831	.796	.882
pretest 3	46.4407	389.452	.639	.641	.891
pretest 4	46.2944	371.902	.772	.668	.884
pretest 5	47.0261	367.654	.684	.703	.889
pretest 6	47.0993	391.709	.650	.696	.891
pretest 7	46.1968	366.233	.739	.608	.885
pretest 8	47.2456	380.293	.760	.785	.885
pretest 9	46.1724	401.463	.558	.629	.896
pretest 10	46.0017	375.758	.757	.737	.885
social desirability pretest	46.7683	428.176	.153	.350	.925

Table 7

Intervention Group Pre-Test Item Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
pretest 1	47.0993	394.380	.667	.731	.891
pretest 2	47.0871	377.055	.831	.796	.882
pretest 3	46.4407	389.452	.639	.641	.891
pretest 4	46.2944	371.902	.772	.668	.884
pretest 5	47.0261	367.654	.684	.703	.889
pretest 6	47.0993	391.709	.650	.696	.891
pretest 7	46.1968	366.233	.739	.608	.885
pretest 8	47.2456	380.293	.760	.785	.885
pretest 9	46.1724	401.463	.558	.629	.896
pretest 10	46.0017	375.758	.757	.737	.885
social desirability pretest	46.7683	428.176	.153	.350	.925

Table 8
Intervention Group Post-Test Item Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
posttest 1	66.0732	205.820	.654	.699	.935
posttest 2	65.7317	194.951	.843	.839	.926
posttest 3	65.4146	196.849	.731	.875	.931
posttest 4	65.1585	203.705	.787	.769	.929
posttest 5	66.1463	194.828	.706	.733	.933
posttest 6	65.4146	195.499	.727	.864	.932
posttest 7	65.4390	199.902	.698	.755	.933
posttest 8	65.4756	205.324	.684	.836	.933
posttest 9	65.4634	197.755	.813	.934	.927
posttest 10	65.3659	195.438	.867	.908	.925

Attention-Control Group

Including the social desirability item, the Cronbach's α = 9.50. Excluding the social desirability item, the Cronbach's α = 0.963. It was determined that the participants in this group had also not responded in a socially desirable manner, eliminating concern of this bias. Pre-test reliability was determined at a Cronbach's α = 9.22 and post-test reliability was determined at a Cronbach's α = 0.939.

Table 9
Attention-Control Group Overall Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.963	20

Table 10
Attention-Control Group Item Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Pretest 1	142.7021	1372.083	.543	.964
Pretest 2	141.8085	1357.289	.711	.961
Pretest 3	142.1064	1378.141	.623	.962
Pretest 4	141.0213	1338.934	.787	.960
Pretest 5	141.8511	1308.782	.727	.962
Pretest 6	141.7447	1346.586	.689	.962
Pretest 7	140.9362	1336.061	.810	.960
Pretest 8	141.6809	1350.439	.785	.960
Pretest 9	141.1064	1339.662	.812	.960
Pretest 10	140.7021	1351.779	.756	.961
Posttest 1	142.3617	1387.497	.524	.964
Posttest 2	141.5319	1359.428	.791	.960
Posttest 3	141.2553	1362.064	.704	.961
Posttest 4	140.8085	1362.158	.711	.961
Posttest 5	141.1702	1336.014	.775	.961
Posttest 6	141.2766	1337.509	.834	.960
Posttest 7	140.9574	1325.607	.853	.960
Posttest 8	141.1277	1370.592	.792	.961
Posttest 9	140.6809	1356.787	.832	.960
Posttest 10	140.5319	1354.254	.840	.960

Table 11- Attention-Control Group Pre-Test Item Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Pretest 1	66.3191	346.918	.542	.924
Pretest 2	65.4255	338.250	.738	.912
Pretest 3	65.7234	356.248	.558	.921
Pretest 4	64.6383	331.888	.783	.910
Pretest 5	65.4681	319.124	.693	.916
Pretest 6	65.3617	334.453	.692	.915
Pretest 7	64.5532	331.470	.795	.909
Pretest 8	65.2979	339.562	.758	.911
Pretest 9	64.7234	332.031	.813	.908
Pretest 10	64.3191	339.657	.736	.913

Table 12
Attention-Control Group Post-Test Item Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Posttest 1	69.9362	319.278	.477	.947
Posttest 2	69.1064	304.836	.770	.932
Posttest 3	68.8298	303.057	.717	.935
Posttest 4	68.3830	302.241	.736	.934
Posttest 5	68.7447	291.890	.775	.932
Posttest 6	68.8511	295.956	.796	.931
Posttest 7	68.5319	286.124	.870	.927
Posttest 8	68.7021	307.040	.818	.931
Posttest 9	68.2553	302.586	.827	.930
Posttest 10	68.1064	303.010	.812	.930

Comparison and Discussion

Between-group reliability was similar, with minimal variation in Cronbach's α from the pre-test to post-test. Overall, the reliability on the SADBS-R ranged from 0.922 to 0.939. These high results suggest redundancy among items, or that at least one item on the

instrument can be expressed as a relationship between two or more of the other items. The reliability for each item on the SADBS-R and overall instrument reliability were analyzed for both the intervention and attention-control groups.

Regression

Response strategies to LV and other forms of workplace bullying are developed through a combination of personal and environmental factors. Exposure, particularly repeated exposure, to LV and prior training about responding to workplace bullying are environmental factors which should be considered possible influences on perceived self-efficacy in responding effectively. Personal factors which may influence perceived self-efficacy to respond are age and gender, since increased number of years in age may increase the possibility of exposure to LV or workplace bullying and members of each gender may respond differently, based on social norms for each gender. Thus, linear regression was performed in various combinations, to determine the influence of each demographic datum on participants' responses to instrument items. The results of these analyses were used to determine the most appropriate statistical technique for detecting change on instrument items, both within and between groups.

Intervention Group

Linear regression was used to determine the influence of the demographic data on summed participants' responses to the instrument items among the intervention group. Age was significantly negatively correlated with pre-test responses at $p = 0.027$ but not to post-test responses at $p = 0.288$. Prior exposure to workplace bullying did not significantly correlate with instrument responses at $p = 0.239$ on the pre-test and $p = 0.323$ on the post-test. Prior training about workplace bullying was not significantly linked to instrument

responses at $p = 0.823$ on the pre-test and $p = 0.874$ on the post-test. Gender was not regressed onto instrument responses due to the fact that all participants among this group were female.

Table 13
Intervention Group Pre-Test Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	43.394	18.907		2.295	.028
	Age	8.003	3.482	.368	2.298	.027
	Previous Experience	-9.682	8.087	-.189	-1.197	.239
	Previous Training	1.908	8.487	.035	.225	.823

a. Dependent Variable: PreSum

Table 14
Intervention Group Post-Test Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	74.832	15.153		4.939	.000
	Age	3.008	2.791	.182	1.078	.288
	Previous Experience	-6.496	6.481	-.168	-1.002	.323
	Previous Training	1.084	6.802	.027	.159	.874

a. Dependent Variable: PostSum

Attention-Control Group

Linear regression was also used to determine the influence of the demographic data on participants' responses to the instrument items among the attention-control group. Age significantly correlated with instrument responses on the pre-test at $p = 0.024$ but not

significantly correlated on the post-test at $p = 0.072$. Gender was not significantly correlated with instrument responses at $p = 0.104$ on the pre-test and $p = 0.209$ on the post-test. Prior exposure to workplace bullying was not significantly correlated with instrument responses at $p = 0.183$ on the pre-test and $p = 0.054$ on the post-test. Lastly, [rior training about workplace bullying was not significantly correlated with instrument responses at $p = 0.158$ on the pre-test and $p = 0.170$ on the post-test.

Table 15
Attention-Control Group Pre-Test Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	96.302	25.203		3.821	.000
	Age	5.650	2.404	.327	2.350	.024
	Gender	-16.365	9.847	-.227	-1.662	.104
	Previous Experience	7.633	5.638	.186	1.354	.183
	Previous Training	-8.196	5.706	-.198	-1.436	.158

a. Dependent Variable: PRESUM

Table 16
Attention-Control Group Post-Test Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	91.387	28.255		3.234	.002
	Age	3.619	2.695	.192	1.343	.187
	Gender	-11.049	11.039	-.140	-1.001	.323
	Previous Experience	13.827	6.321	.309	2.187	.034
	Previous Training	-12.299	6.397	-.272	-1.923	.061

a. Dependent Variable: POSTSUM

Comparison

Age was significantly correlated with pre-test instrument responses among both the intervention and the attention-control groups. However, it was not significantly correlated with post-test instrument responses among either group. It was hypothesized that increased age could be linked to increased exposure to or training about workplace bullying, both of which could lead to prior development of response strategies. Subsequently, age was then regressed onto prior exposure to workplace bullying but an insignificant correlation was found at $p = 0.203$ among the intervention group and $p = 0.283$ among the attention-control group. Age was also regressed onto prior training about workplace bullying but was not significantly correlated at $p = 0.257$ among the intervention group and $p = 0.224$ among the attention-control group. Since age was only significantly correlated to pre-test responses among both groups and no other significant correlations existed, it was determined that none of the demographic data should be considered as covariates. Thus, from the results of the regression analysis, it was determined that a paired samples t-test would be the appropriate choice for both within and between group measures of change.

Research Question

The research question associated with this study was: "What is the effect of a cognitive behavioral intervention on nursing students' perceived self-efficacy in responding to LV?" The independent variable was the intervention (group assignment) and the dependent variable was perceived self-efficacy, as measured by the SADBS-R. In the absence of covariates, a paired samples t-test was determined the appropriate statistical procedure to detect within group change and between group change.

Paired Samples *t*-Tests

Intervention group.

Paired samples *t*-test statistical technique was used to detect change between pre-test and post-test responses. Significance level was set at p = 0.000 to ensure avoidance of Type 1 or Type 2 errors. Items were analyzed on pre and post-test responses, as individual items and summed scores. Secondly, the analysis indicated a statistically significant increase in reported self-efficacy in responding to LV on all 10 instrument items at the $p = 0.000$ level, with a high power of 0.95 and moderate effect size of 0.40 (Cohen, 1988, p. 311).

Paired *t*-tests were used to analyze data collected on completed SABDS-Rs in the three-month follow-up. Pre-test and post-test scores were individually compared to follow-up scores as individual items and summed scores. Results indicated a significantly increased difference between pre-test scores and follow-up scores on all items at the $p = 0.000$ level (Table 17). Follow-up scores did not significantly differ from post-test scores on any item (Table 18). Table 19 displays the results of the paired *t*-tests using summed scores to compare pre-test scores to follow-up scores and post-test scores to follow-up scores.

Table 17

Intervention Group Paired Samples *t*-test

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	pretest 1 - posttest 1	-2.53659	1.55077	.24219	-3.02607	-2.04710	-10.474	40	.000
Pair 2	pretest 2 - posttest 2	-2.86585	1.89415	.29582	-3.46372	-2.26799	-9.688	40	.000
Pair 3	pretest 3 - posttest 3	-2.53659	2.96730	.46341	-3.47318	-1.59999	-5.474	40	.000
Pair 4	pretest 4 - posttest 4	-2.64634	2.15709	.33688	-3.32720	-1.96548	-7.855	40	.000
Pair 5	pretest 5 - posttest 5	-2.39024	2.48876	.38868	-3.17579	-1.60470	-6.150	40	.000
Pair 6	pretest 6 - posttest 6	-3.19512	2.24966	.35134	-3.90520	-2.48504	-9.094	40	.000
Pair 7	pretest 7 - posttest 7	-2.26829	2.32405	.36296	-3.00185	-1.53473	-6.249	40	.000
Pair 8	pretest 8 - posttest 8	-3.28049	2.34000	.36545	-4.01908	-2.54189	-8.977	40	.000
Pair 9	pretest 9 - posttest 9	-2.21951	2.19673	.34307	-2.91288	-1.52614	-6.470	40	.000
Pair 10	pretest 10 - posttest 10	-2.14634	2.40376	.37540	-2.90506	-1.38762	-5.717	40	.000

Table 18

Intervention Group Paired Samples *t*-test Pre-Test/Follow Up

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	pretest 1 - FU1	-2.74286	1.93030	.32628	-3.40594	-2.07978	-8.406	34	.000
Pair 2	pretest 2 - FU2	-2.87143	2.58202	.43644	-3.75838	-1.98448	-6.579	34	.000
Pair 3	pretest 3 - FU3	-2.94286	2.24844	.38005	-3.71522	-2.17049	-7.743	34	.000
Pair 4	pretest 4 - FU4	-2.80000	2.51817	.42565	-3.66502	-1.93498	-6.578	34	.000
Pair 5	pretest 5 - FU5	-2.80000	2.56446	.43347	-3.68092	-1.91908	-6.459	34	.000
Pair 6	pretest 6 - FU6	-2.62857	2.34001	.39553	-3.43239	-1.82475	-6.646	34	.000
Pair 7	pretest 7 - FU7	-2.51429	2.94430	.49768	-3.52569	-1.50288	-5.052	34	.000
Pair 8	pretest 8 - FU8	-3.22857	2.42640	.41014	-4.06207	-2.39508	-7.872	34	.000
Pair 9	pretest 9 - FU9	-2.25714	2.29248	.38750	-3.04464	-1.46965	-5.825	34	.000
Pair 10	pretest 10 - FU10	-2.48571	2.71566	.45903	-3.41857	-1.55285	-5.415	34	.000

Table 19

Intervention Group Post-Test/Follow Up

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	posttest 1 - FU1	-.05714	1.58936	.26865	-.60311	.48882	-.213	34	.833
Pair 2	posttest 2 - FU2	.02857	1.91719	.32406	-.63001	.68715	.088	34	.930
Pair 3	posttest 3 - FU3	-.11429	2.04035	.34488	-.81517	.58660	-.331	34	.742
Pair 4	posttest 4 - FU4	-.30000	1.77482	.30000	-.90967	.30967	-1.000	34	.324
Pair 5	posttest 5 - FU5	-.31429	1.71106	.28922	-.90206	.27348	-1.087	34	.285
Pair 6	posttest 6 - FU6	.57143	1.61401	.27282	.01700	1.12586	2.095	34	.044
Pair 7	posttest 7 - FU7	-.25714	1.83660	.31044	-.88804	.37375	-.828	34	.413
Pair 8	posttest 8 - FU8	.24286	1.88013	.31780	-.40299	.88870	.764	34	.450
Pair 9	posttest 9 - FU9	-.25714	1.86836	.31581	-.89895	.38466	-.814	34	.421
Pair 10	posttest 10 - FU10	-.08571	1.93073	.32635	-.74894	.57752	-.263	34	.794

Table 20
Intervention Group Overall Paired *t*-tests

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PreSum - FOLLOWUPSUM	-27.27143	18.08938	3.05766	-33.48535	-21.05751	-8.919	34	.000
Pair 2	PostSum - FOLLOWUPSUM	-.54286	11.93695	2.01771	-4.64334	3.55763	-.269	34	.790

Attention-control group.

Paired samples *t*-test statistical technique was also used to determine the change between pre and post-test scores among the attention-control group. The analysis revealed no statistically significant changes between pre and post-test data at the $p < 0.001$, $p < 0.01$, or $p < 0.05$ levels except Item 3 which changed significantly at $p = 0.002$. The overall lack of change between the pre and post-tests supports the efficacy of the actual intervention, as opposed to a possible placebo effect.

Paired *t*-tests were also used to analyze data collected on completed SABDS-Rs in the three-month follow-up among the attention-control group. Pre-test and post-test scores were individually compared to follow-up scores as individual items and summed scores. Results indicated no significant difference between pre-test scores and follow-up scores on any item at the $p = 0.000$ level (Table 48). Items 1 ($p = 0.040$), 3 ($p = 0.006$), and 5 ($p = 0.020$) were closest to significantly differing. Follow-up scores did not significantly differ from post-test scores on any item (Table 49). Table 50 displays the results of the paired *t*-tests using summed scores to compare pre-test scores to follow-up scores and post-test scores to follow-up scores.

Table 21

Attention-Control Group Paired Samples T-Test

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Pretest 1 - Posttest 1	-.34043	1.97018	.28738	-.91889	.23804	-1.185	46	.242
Pair 2	Pretest 2 - Posttest 2	-.27660	1.67724	.24465	-.76905	.21586	-1.131	46	.264
Pair 3	Pretest 3 - Posttest 3	-.85106	1.80553	.26336	-1.38119	-.32094	-3.232	46	.002
Pair 4	Pretest 4 - Posttest 4	-.21277	1.84080	.26851	-.75324	.32771	-.792	46	.432
Pair 5	Pretest 5 - Posttest 5	-.68085	1.70812	.24915	-1.18237	-.17933	-2.733	46	.009
Pair 6	Pretest 6 - Posttest 6	-.46809	1.95438	.28508	-1.04191	.10574	-1.642	46	.107
Pair 7	Pretest 7 - Posttest 7	.02128	1.68741	.24613	-.47417	.51672	.086	46	.931
Pair 8	Pretest 8 - Posttest 8	-.55319	1.48629	.21680	-.98958	-.11680	-2.552	46	.014
Pair 9	Pretest 9 - Posttest 9	-.42553	1.42561	.20795	-.84411	-.00696	-2.046	46	.046
Pair 10	Pretest 10 - Posttest 10	-.17021	1.59236	.23227	-.63775	.29732	-.733	46	.467

Table 22

Attention-Control Group Paired Samples T-Test Pre-Test/Follow-Up

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Pretest 1 - Follow up 1	-.86364	2.69876	.40685	-1.68413	-.04314	-2.123	43	.040
Pair 2	Pretest 2 - Follow up 2	-.31818	2.51297	.37884	-1.08219	.44583	-.840	43	.406
Pair 3	Pretest 3 - Follow up 3	-1.02273	2.34757	.35391	-1.73645	-.30900	-2.890	43	.006
Pair 4	Pretest 4 - Follow up 4	-.43182	2.19299	.33061	-1.09855	.23491	-1.306	43	.198
Pair 5	Pretest 5 - FUP5	-.90909	2.49481	.37611	-1.66758	-.15060	-2.417	43	.020
Pair 6	Pretest 6 - FUP6	-.54545	2.58308	.38941	-1.33078	.23987	-1.401	43	.168
Pair 7	Pretest 7 - FUP7	-.36364	2.12505	.32036	-1.00971	.28244	-1.135	43	.263
Pair 8	Pretest 8 - FUP8	-.18182	2.52681	.38093	-.95004	.58640	-.477	43	.636
Pair 9	Pretest 9 - FUP9	-.61364	2.02560	.30537	-1.22948	.00220	-2.009	43	.051
Pair 10	Pretest 10 - FUP10	-.13636	2.37811	.35851	-.85937	.58665	-.380	43	.706

Table 23

Attention Group Paired T-Test Post-Test/Follow-Up

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Posttest 1 - Follow up 1	-.52273	2.27717	.34330	-1.21505	.16960	-1.523	43	.135
Pair 2	Posttest 2 - Follow up 2	-.02273	1.86134	.28061	-.58863	.54317	-.081	43	.936
Pair 3	Posttest 3 - Follow up 3	-.20455	2.07510	.31283	-.83543	.42634	-.654	43	.517
Pair 4	Posttest 4 - Follow up 4	-.22727	1.91522	.28873	-.80955	.35501	-.787	43	.436
Pair 5	Posttest 5 - FUP5	-.18182	2.20225	.33200	-.85136	.48773	-.548	43	.587
Pair 6	Posttest 6 - FUP6	.00000	2.04598	.30844	-.62204	.62204	.000	43	1.000
Pair 7	Posttest 7 - FUP7	-.40909	2.30589	.34763	-1.11015	.29196	-1.177	43	.246
Pair 8	Posttest 8 - FUP8	.43182	2.17168	.32739	-.22843	1.09207	1.319	43	.194
Pair 9	Posttest 9 - FUP9	-.15909	1.71102	.25795	-.67929	.36111	-.617	43	.541
Pair 10	Posttest 10 - FUP10	.04545	2.05680	.31007	-.57987	.67078	.147	43	.884

Table 24
Attention-Control Group Overall Paired-T-Tests

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PRESUM - AFOLLOWUPSUM	-6.36364	15.96230	2.40641	-11.21662	-1.51065	-2.644	43	.011
Pair 2	POSTSUM - AFOLLOWUPSUM	-1.75000	18.12890	2.73303	-7.26169	3.76169	-.640	43	.525

Between group change.

A Paired Samples *t*-test was also used to determine whether there was a significant difference in participants' reported increase in self-efficacy between the intervention and control groups. The results of this test showed statistical significance in the difference between groups at $p < 0.000$ level. Differences in measures of central tendency include an increase in mean change = 21.84. A paired samples correlation between the intervention and attention-control groups also revealed a non-significant correlation between the two groups at $p = 0.296$ (Table 19). Most importantly, the analysis detected a significant difference between the intervention and attention-control groups of $p = 0.000$ comparing pre-test and post-test data. Follow-up data indicated results useful for determining the long-term effects of this intervention on participants' self-efficacy to respond to LV effectively. The intervention group's responses in the follow-up were significantly increased from the pre-test and had not significantly decreased from the post-test, suggesting that the effects of the intervention remain in effect for at least three months. Among the attention-control group, there were no significant differences between the pre-test and post-test, pre-test and follow-up, or post-test and follow up. These results also indicate that the placebo intervention administered to the attention-control group was effectively designed.

Table 25
Between-Group Correlations

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Attention Control Group Change & Intervention Group Change	41	-.167	.296

Table 26
Between-Group Paired Samples T-Test

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Attention Control Group Change - Intervention Group Change	-21.84146	19.32500	3.01806	-27.94118	-15.74174	-7.237	40	.000

Clinical Significance

Intervention Group

While statistically significant increases in reported self-efficacy were detected using a Paired Samples T-Test, clinical significance was determined by quartiling the pre and post-test data. The pre-test quartiles showed the following ranges: Quartile 1 = 10-31 points (*n* = 10); Quartile 2 = 31 - 44 points (*n* = 10); Quartile 3 = 47 - 58 points (*n* = 10); and Quartile 4 = 59 - 100 points (*n* = 11) (Table 27). Post-test quartiling results showed an increase in overall self-efficacy, as follows: Quartile 1 = 37 - 63 points (*n* = 10); Quartile 2 = 65 - 72 points (*n* = 9); Quartile 3 = 74 - 82 points (*n* = 10); and Quartile 4 = 83 - 100 points (*n* = 12) (Table 28). Overall, participants reported an average increase in self-efficacy in responding to LV of 26 points. As evidenced by the shift in point ranges among all quartiles, participants among all quartiles benefitted from this intervention, with regard to self-efficacy in responding to LV. Thus, this intervention is associated with clinical significance, as well as statistical significance.

Quartiling was performed on the three-month post-intervention follow-up data (Table 49). This revealed the following range of points: Quartile 1 = 39 – 65 points (*n* = 8); Quartile 2 = 67 – 71 points (*n* = 67 – 71); Quartile 3 = 72 – 78 points (*n* = 8); and Quartile 4 = 79 – 94 points (*n* = 11) (Table 29). The range of points in the third and fourth percentiles were slightly lower in the follow-up data than in the immediate post-test data. Surprisingly, the range of points in the first and second quartiles remained not only increased as compared to the pre-test but also increased as compared to the post-test. This indicates that those scoring lowest on self-efficacy prior to the intervention may have gained the most longitudinal benefits but it is clear from these results that even three months after the one-hour intervention, all quartiles had maintained increased self-efficacy in responding to LV. Participant attrition from this group (*n* = 7) may have impacted these follow-up data and quartiling but their effects are unknown.

Table 27
Intervention Group Pre-Test Quartiles

Quartile	**Points Range**	***N***
1 (0 - 24%)	10 - 31 points	10
2 (25 - 49%)	34 - 44 points	10
3 (50 - 74%)	47 - 58 points	10
4 (75 - 100%)	59 - 100 points	11

Table 28
Intervention Group Post-Test Quartiles

Quartile	**Points Range**	***N***
1 (0 - 24%)	37 - 63 points	10
2 (25 - 49%)	65 - 72 points	9
3 (50 - 74%)	74 - 82 points	10
4 (75 - 100%)	83 - 100 points	12

Table 29- Intervention Group Follow-Up Quartiles

Quartile	**Points Range**	***N***
1 (0 - 24%)	39 – 65 points	10
2 (25 - 49%)	67 – 71 points	9
3 (50 - 74%)	72 – 78 points	10
4 (75 - 100%)	79 – 94 points	12

Attention-Control Group

Quartiling of the attention-control group data revealed very little increase in perceived self-efficacy by quartile, as expected. Ranges of points for each quartile on the pre-test are as follows: Quartile 1 = 23 - 51 points (*n* = 10); Quartile 2 = 52 - 79 points (*n* = 13); Quartile 3 = 81 - 88 points (*n* = 12); and Quartile 4 = 89 - 100 points (*n* = 12) (Table 30). Ranges of points for each quartile on the post-test data are as follows: Quartile 1 = 21 - 57 points (*n* = 11); Quartile 2 = 58 - 80 points (*n* = 11); Quartile 3 = 81-91 points (*n* = 12); and Quartile 4 = 92-100 points (*n* = 13) (Table 31). The range of points for the first quartile among this group decreased two points from 23 points minimum to 21 points minimum, the second quartile minimum increased six points, the third quartile minimum did not increase at all, and the fourth quartile increased only 3 points. Overall, participants' perceived self-efficacy only increased an average of 5.44 points. This small change was expected, since this group did not receive the actual intervention, and provides support for the effectiveness of the intervention.

Quartiling was also performed on the three-month post-attention-control intervention data collection. Ranges of points for each quartile are as follows: Quartile 1 = 37 – 65 points (*n* = 11); Quartile 2 = 66 – 78 points (*n* = 11); Quartile 3 = 79 – 88 points (*n* = 79 – 88); and

Quartile 4 = 90 – 100 points (*n* = 12) (Table 32). Interestingly, the quartiles among this group also reflected an increase over pre-test scores in all quartiles and over post-test scores in the first quartile and minimum range value of the second quartile. Because this group did not receive an intervention related to LV, response training, or anything related to interpersonal communication, it is unclear why these increases occurred. Possible factors contributing to this phenomenon are history, personal events in the lives of participants, the placebo effect, or participant attrition (*n* = 3)

Table 30
Attention-Control Group Pre-Test Quartiles

Quartile	Points Range	*N*
1 (0 - 24%)	23 - 51 points	10
2 (25 - 49%)	52 - 79 points	13
3 (50 - 74%)	81 - 88 points	12
4 (75 - 100%)	89 - 100 points	12

Table 31
Attention-Control Group Post-Test Quartiles

Quartile	Points Range	*N*
1 (0 - 24%)	21 - 57 points	11
2 (25 - 49%)	58 - 80 points	11
3 (50 - 74%)	81 - 91 points	12
4 (75 - 100%)	92 - 100 points	13

Table 32- Attention-Control Group Follow-Up Quartiles

Quartile	Points Range	*N*
1 (0 - 24%)	37 - 65 points	10
2 (25 - 49%)	66 – 78 points	9
3 (50 - 74%)	79 – 88 points	10
4 (75 - 100%)	90 – 100 points	12

Comparison

All quartiled scores from the intervention group showed a notable increase from pre-test to post-test. In contrast, the quartiled scores from the attention-control group showed very little increase. This was an expected finding, since the attention-control group did not receive the intervention, and provides further evidence of the effectiveness of the intervention on increasing self-efficacy in responding to LV. Comparison of the follow-up quartiling between groups showed that the changes within groups were similar among the third and fourth quartiles, showing only a slight decrease as compared with post-test. The surprising change was among the first and second quartiles in the attention-control group, which showed an increase over both pre and post-test scores.

Factor Analysis

Assumptions

As part of the factor analysis, a Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and a Bartlett's Test of Sphericity were analyzed. The KMO value = 0.857, confirming that an adequate number of items were included on the instrument to predict each factor. The Bartlett's Test of Sphericity value = 0.000, indicating that the instrument items were highly enough correlated for a factor analysis to be performed. Thus, the assumptions were met and factor analysis was subsequently performed.

Principal Components Analysis

Intervention group.

Principal Components Analysis with Varimax rotation was used to determine the factors associated with the SADBS-R. Initially, variance was examined to determine the number of factors and the amount of variance for which they accounted in participant responses (Table 33). Eigenvalue cutoff was set at 1.0. Pre-test analysis revealed two main

factors, accounting for a total of 72.02% of variance. The first factor had an Eigenvalue = 6.053, accounting for 60.53% variance in participant responses on the pre-test. The second factor had an Eigenvalue = 1.149, accounting for 11.49% of variance.

Table 33
Intervention Group Pre-Test Variance

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.053	60.533	60.533	5.720	57.201	57.201	3.437	34.368	34.368
2	1.149	11.488	72.021	.812	8.122	65.323	3.096	30.956	65.323
3	.696	6.959	78.980						
4	.581	5.812	84.792						
5	.439	4.385	89.177						
6	.360	3.600	92.777						
7	.271	2.714	95.491						
8	.175	1.754	97.244						
9	.150	1.501	98.745						
10	.126	1.255	100.000						

Extraction Method: Principal Axis Factoring.

Next, the rotated factor matrices were examined to determine how particular items from the SADBS-R loaded onto each factor (Table 34). Analysis of the pre-test matrix indicated that Items 1, 3, 8, and 10 loaded more heavily onto Factor 1, while Items 5, 6, 7, and 9 loaded more heavily onto Factor 2. Items 2 and 4 loaded onto each factor fairly evenly, suggesting that participants' responses on these items discriminated well between those with high self-efficacy and those without.

Table 34
Intervention Group Pre-Test Rotated Factor Matrix

Rotated Factor Matrix[a]

	Factor	
	1	2
pretest 1	.769	.275
pretest 2	.645	.617
pretest 3	.718	.239
pretest 4	.590	.485
pretest 5	.242	.828
pretest 6	.251	.757
pretest 7	.445	.598
pretest 8	.876	.266
pretest 9	.270	.640
pretest 10	.636	.499

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Principal Components Analysis with Varimax rotation was also used to examine factors on the post-test. Again, Eigenvalue cutoffs were placed at 1.0. First, two main factors emerged in the post-test, accounting for a combined 78.22% of variance in participant responses (Table 35). Factor 1 had an Eigenvalue = 6.481, accounting for 64.8% of variance, and Factor 2 had an Eigenvalue = 1.341, accounting for 13.41% of variance.

Table 35
Intervention Group Post-Test Variance

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.481	64.808	64.808	6.220	62.204	62.204	4.114	41.140	41.140
2	1.341	13.412	78.220	1.114	11.135	73.339	3.220	32.199	73.339
3	.737	7.371	85.591						
4	.547	5.473	91.064						
5	.283	2.827	93.892						
6	.225	2.254	96.146						
7	.149	1.494	97.641						
8	.127	1.265	98.906						
9	.075	.752	99.658						
10	.034	.342	100.000						

Extraction Method: Principal Axis Factoring.

Analysis of the post-test matrix (Table 36) indicated that Items 1, 8, and 10 still loaded more heavily onto Factor 1 but that Item 3 loaded onto Factor 2. Items 5 and 6 still loaded onto Factor 2 more heavily on the post-test, but Items 3, 7, and 9 loaded onto Factor 1. Item 2, which had not loaded more heavily onto either Factor in the pre-test, loaded onto Factor 1 in the post-test.

Table 36

Intervention Group Post-Test Rotated Factor Matrix

Rotated Factor Matrix[a]

	Factor	
	1	2
posttest 1	.721	.218
posttest 2	.683	.523
posttest 3	.320	.810
posttest 4	.717	.408
posttest 5	.272	.830
posttest 6	.247	.907
posttest 7	.664	.335
posttest 8	.877	.120
posttest 9	.836	.336
posttest 10	.682	.571

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The educational intervention included definitions of LV behaviors, as well as presentation of examples and sharing of experiences of these behaviors. This part of the intervention was designed to increase awareness and clarify misconceptions about behaviors constituting LV. Increased awareness and clarity may explain the shift in factor loadings between the pre and post-test. On the post-test, items which loaded onto Factor 1 represent the more subtle behaviors, such as non-verbal innuendo (Item 1), scapegoating (Item 7), and

gossiping and other behind-the-back behaviors (Items 8, 9, and 10). Conversely, items loading onto Factor 2 represent more overt behaviors, such as verbal affronts (Item 2), refusal to help (Item 3), sabotage (Item 5), and picking fights (Item 6). Interestingly, Item 4 asked about an undermining behavior (withholding information) and remained evenly loaded onto each factor on the post-test, even after the intervention. Undermining, as a subtle relation of sabotage, can be more difficult to detect and therefore not as easily addressed. The fact that this item remained evenly loaded onto each factor suggests that participants may have had difficulty deciding how difficult undermining would be to detect.

Attention-control group.

Principal Components Analysis with Varimax rotation was used to determine the factors associated with the SADBS-R among the attention-control group. Initially, variance was examined to determine the number of factors and the amount of variance for which they accounted in participant responses (Table 37). Eigenvalue cutoff was set at 1.0. Pre-test analysis revealed two main factors, accounting for a total of 72.26% of variance. The first factor had an Eigenvalue = 6.016, accounting for 60.15% variance in participant responses on the pre-test. The second factor had an Eigenvalue = 1.210, accounting for 12.10% of variance.

Table 37
Attention-Control Group Pre-Test Variance

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.016	60.157	60.157	5.685	56.852	56.852	3.950	39.495	39.495
2	1.210	12.099	72.256	.889	8.892	65.743	2.625	26.248	65.743
3	.697	6.972	79.228						
4	.581	5.809	85.037						
5	.388	3.876	88.913						
6	.337	3.373	92.285						
7	.254	2.539	94.824						
8	.230	2.295	97.120						
9	.190	1.897	99.017						
10	.098	.983	100.000						

Extraction Method: Principal Axis Factoring.

Next, the factor matrices were examined to determine how each item loaded on the two factors (Table 38). In the pre-test, all items except Item 1, loaded clearly onto Factor 1. Item 1 loaded evenly onto Factors 1 and 2. Item 1 asks about participants' self-efficacy in responding to non-verbal innuendo, such as making faces or other gestures. This suggests that participants in this group had difficulty determining how to identify, classify, and respond to this type of behavior. The post-test variance revealed only one factor, with an Eigenvalue = 6.631, accounting for 66.31% of variance in participant responses. Since only one factor was identified, no rotated solution was possible. All items loaded onto Factor 1 in the unrotated factor matrix. Since this group did not receive an intervention related to LV, the reasons for the factor reduction are unknown.

Table 38

Attention-Control Group Pre-Test Rotated Factor Matrix

Rotated Factor Matrix[a]

	Factor	
	1	2
Pretest 1	.135	.814
Pretest 2	.424	.714
Pretest 3	.258	.634
Pretest 4	.751	.355
Pretest 5	.901	.081
Pretest 6	.631	.338
Pretest 7	.823	.304
Pretest 8	.578	.541
Pretest 9	.702	.484
Pretest 10	.638	.428

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Table 39

Attention-Control Group Post-Test Variance

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.631	66.312	66.312	6.295	62.950	62.950
2	.961	9.608	75.919			
3	.681	6.815	82.734			
4	.532	5.321	88.055			
5	.354	3.540	91.595			
6	.243	2.427	94.021			
7	.210	2.097	96.118			
8	.197	1.966	98.084			
9	.101	1.014	99.098			
10	.090	.902	100.000			

Extraction Method: Principal Axis Factoring.

Comparison.

An evenly loading item was identified in both the intervention and attention-control groups. However, while Item 4 (undermining behaviors) was identified among the intervention group, Item 1 (non-verbal innuendo) was identified among the attention-control

group. This may be due to the increased number of participants in the attention-control who had received prior training about workplace bullying, making it easier for these participants to identify and respond to undermining behaviors. Previous experiences and personal characteristics could have contributed to Item 1 loading evenly between factors on the pre-test, but the exact influences are unclear.

CHAPTER 5

CONCLUSIONS

The deleterious effects of lateral violence (LV) among nurses on individual and organizational outcomes has been liberally studied and published. While most published studies have focused on measuring the effects of LV and a few have provided speculative suggestions aimed at prevention, this is the only known study which has aimed prevention at nursing students, prior to their entry to the nursing workforce. The majority of participants in this study reported no previous exposure to or training to respond to any type of workplace bullying, suggesting that such training is needed among this population.

SCT was utilized in this study, ensuring accurate operationalizing of variables and appropriate intervention methodology. Statistical analyses indicate high efficacy of this intervention on participants' perceived self-efficacy in responding to LV behaviors at the $p = 0.05$ level, with a power of 0.95, and effect size of 0.40. Use of a control group and randomization further added to the scientific rigor of the study and, consequently, the validity of its findings. Equally importantly, clinical significance was present, as indicated by both the increase in overall quartile scores and the overall upward shift in all quartiles. This finding suggests that this intervention has the potential to increase self-efficacy among participants with varying characteristics.

Limitations

The results of this study were limited in their generalizability for the following reasons:

(1) This study was conducted at two private, faith-based institutions within a single, metropolitan setting, limiting the generalizability of results to public institutions and nursing schools in other parts of the country or world.

(2) The study population consisted of nursing students in their final year of a baccalaureate program, limiting the generalizability of these results to other populations such as students in Associate Degree in Nursing (ADN) and Advanced Track (AT) programs, newly licensed nurses, and nurses with more than one year of experience.

(3) All data collected during the course of this research was gathered during participants' regularly scheduled class time. This approach was taken in order to maximize participation and minimize burden to participants. At the intervention group's site, attendance was lower on the day of ore and post-test data collection, as compared with the day of follow-up data collection. Seven participants who participated in the pre and post-test data collection were not present for follow-up collection.

Among the intervention group, attrition accounted for seven missing follow-up instruments. Attendance in class was different on the day of follow-up collection as compared with pre and post-test data collection. Attrition among the attention-control group accounted for three initial participants' not completing follow-up instruments. Of these three, two participants were no longer enrolled in the academic program, accounting for their absence.

Implications for Future Research

Continuation of this research should involve inclusion of public education institutions, different geographical locations, and nursing students enrolled in ADN and AT programs, to determine the generalizability of these results. Furthermore, the first six months

to one year of practice as a professional nurse is the timeframe in which newly licensed nurses are at the highest risk for attrition. A longer time-series design, involving follow-up at six months and one year following graduation would determine the effects of this educational intervention on both self-efficacy in responding and attrition rates from jobs and the profession.

Use of a reliable, valid, and theoretically-based instrument is essential in further contributions to the body of knowledge on this subject. The SADBS-R should be utilized in future studies, measuring perceived self-efficacy in responding to LV, and refined through continued reliability and validity analysis.

LV behaviors among nurses contribute to harmful effects on individuals involved, patients, organizations, and the profession of nursing. Newly licensed nurses are at particular risk for becoming targets of LV, decreased ability to respond effectively, and increased risk for attrition. These risks provide a compelling case to intervene prior to entry to the professional nursing workplace.

APPENDIX A

SELF-EFFICACY TO ADDRESS DISRUPTIVE BEHAVIOR SCALE

Self-Efficacy to Address Disruptive Behavior Scale (SADBS)

Thank you for your interest in the Self-Efficacy to Address Disruptive Behavior Scale (SADBS). The 10 item Likert-type instrument was developed to assess nurse's level of self-efficacy to address disruptive physician behavior. Self-efficacy is measured on a scale of 0-10 with higher scores indicating higher perceived self-efficacy.

Initial psychometric testing of the SADBS with 40 registered nurses was conducted using item analysis, Cronbach's alpha, and factor analysis. Reliability of the instrument was very high, as determined by a Cronbach's $\alpha = 0.904$. Reliability scores when individual items were deleted from the instrument, ranged from 0.882 to 0.917, indicating that the instrument is statistically stable.
Using an Eigenvalue cutoff value of 1.0, exploratory factor analysis revealed two factors, which explained 67.980% of the variance.

You have my permission to use the SADBS in your research. Please cite my dissertation (see below) when reporting any findings using the SADBS.

Rebecca Saxton, PhD, RN
Research College of Nursing
2525 E. Meyer Blvd.
Kansas City, MO 64132
816-995-2847

APPENDIX B

SCALE TO ADDRESS DISRUPTIVE BEHAVIOR SCALE-REVISED

SADBS-R

Participant ID:_____

Self-Efficacy to Address Disruptive Behavior Scale – Revised (SADBS-R)

Ten situations of disruptive behavior are described below. Please rate your degree of confidence in addressing the disruptive behavior in each situation using the scale provided.

If you have not experienced a behavior, respond with how confident you would be *if* you were to experience it.

0 1 2 3 4 5 6 7 8 9 10

not confident moderately confident highly confident

		Confidence (0-10)
1.	If a nurse made faces or other non-verbal gestures about me	_____
2.	If a nurse made snide or rude comments to or about me or raises her/his voice at me	_____
3.	If a nurse refused to help me or answer my questions	_____
4.	If a nurse didn't give me the information I needed to do my job	
5.	If a nurse deliberately set up a situation for me to fail	_____
6.	If a nurse picked fights with me (bickering)	_____
7.	If a nurse blamed things on me that were not my fault	_____
8.	If a nurse complained about me to others instead of talking to me about it	_____

9. If a nurse failed to respect my privacy _____

10. If a nurse broke a confidence, told others my private information _____

11. I have never deliberately said something to hurt someone's feelings _____

Demographic Information

Age: ___ 20-25 ____ 26-30 ____ 31-35 ____36-40 ____41+

Gender: ___Female ____Male

Have you experienced lateral violence or workplace bullying?

____Yes ____No

Have you received training or education about any type of workplace bullying?

____Yes ____No

APPENDIX C

INFORMED CONSENT FOR INTERVENTION SITE

Consent for Participation in a Research Study

Lateral Violence Response Training for Nursing Students

Principal Investigator: Peggy Ward-Smith, PhD, RN
Co-Investigator: Ericka Sanner-Stiehr, RN, BSN, PhD(c)

Request to Participate

You are being asked to take part in a research study. This study is being conducted at Avila University/Research College of Nursing

The researcher in charge of this study is Peggy Ward-Smith. While she is the Principal Investigator (PI) of this study, Ericka Sanner-Stiehr and other qualified persons who are members of this study team may provide assistance. The study team is asking you to take part in this research study because you are a senior nursing student. Research studies only include people who choose, or volunteer, to take part. This document is called a consent form. Please read this consent form carefully and take your time making your decision. The PI or a member of the study team will review this consent form with you. You may ask any of these people to explain anything that you do not understand. Think about it and talk it over with your family and friends before you decide if you want to take part in this research study. This consent form explains what to expect: the risks, discomforts, and benefits, if any, if you consent to be in the study.

Background

Nurses are likely to encounter lateral violence in their workplaces. Senior nursing students are being recruited for this research study because they will soon graduate and enter professional nursing practice where lateral violence occurs.

You will be one of about 110 subjects in the study at X University.

Purpose

The purpose of this study is to gather information on your confidence in responding to lateral violence.

Procedures

If you decide to participate:
You will participate in one educational session. This research study will be completed in approximately one hour, during your normally scheduled class time, and in your regular classroom. You will be asked to listen to a short presentation and participate in groups activities. You will also fill out a questionnaire both before and after the presentation/activities. You will also fill out this questionnaire one time, in three months from the time of your participation in the educational session. When you are done taking part in this study, you will still have access to the study intervention

Your participation in this study is strictly voluntary. If you choose not to participate, it will not affect your standing in the college/university or your grades. You may withdraw at any

time. If you choose to withdraw, you should notify the researcher. If you choose to withdraw, it will not affect your standing in the university or your grades.

Risks and Inconveniences
This research is considered to be minimal risk. That means that the risks of taking part in this research are not expected to be more than the risks in your daily life. However, while participating in the activities and filling out the questionnaires, you may come across material that makes you uncomfortable or creates a negative emotional state for you. If this occurs, notify the researcher immediately and your participation will be discontinued if necessary. If needed, you will be referred to counseling resources available at your university or to your primary care physician for a counseling referral. There are no other known risks to you if you choose to take part in this study.

Benefits
By participating in this research study, you will be exposed to information that may increase your confidence in responding to lateral violence. You will also have the opportunity to contribute to nursing science by participating in this study.

Fees and Expenses
There is no expense to you for participating in this research study.

Compensation
There is no payment to you for participating in this study**.**

Alternatives to Study Participation
The alternative is not to take part in the study.

Confidentiality
While we will do our best to keep the information you share with us confidential, it cannot be absolutely guaranteed. Individuals from the University of Missouri-Kansas City Institutional Review Board (a committee that reviews and approves research studies), Research Protections Program, and Federal regulatory agencies may look at records related to this study to make sure we are doing proper, safe research and protecting human subjects. The results of this research may be published or presented to others. Neither you nor your university will be named in any reports of the results.

Your privacy and confidentiality will be protected in the following ways:
No identifying information about you will be collected. This means that you will not be asked to disclose your name, birthdate, Social Security number, address, telephone number, or any other information which could potentially identify you.
You will create your own Participant Identification number which you will write on your questionnaires. This allows the PI to match your questionnaires but not link them to you. Your responses on the questionnaires will be stored in the researcher's password-protected computer. Only the PI and the co-investigator will have access to these records. If you choose to withdraw before completing the second questionnaire, the responses from your first questionnaire will not be used.

The University of Missouri-Kansas City appreciates people who help it gain knowledge by being in research studies. It is not the University's policy to pay for or provide medical treatment for persons who are in studies. If you think you have been harmed because you were in this study, please contact the PI, Peggy Ward-Smith, at wardsmithp@umkc.edu or Ericka Sanner-Stiehr at ejs8d6@mail.umkc.edu..

Contacts for Questions about the Study

You should contact the Office of UMKC's Social Sciences Institutional Review Board at 816-235-5927 if you have any questions, concerns or complaints about your rights as a research subject. You may contact the PI, Peggy Ward-Smith at wardsmithp@umkc.edu or Ericka Sanner-Stiehr at ejs8d6@mail.umkc.edu if you have any questions about this study or if any problems arise.

Voluntary Participation

Taking part in this research study is voluntary. If you choose to be in the study, you are free to stop participating at any time and for any reason. If you choose not to be in the study or decide to stop participating, your decision will not affect any care or benefits you are entitled to. The researchers, doctors or sponsors may stop the study or take you out of the study at any time if they decide that it is in your best interest to do so. They may do this for administrative reasons or if you no longer meet the study criteria. You will be told of any important findings developed during the course of this research.

You have read this Consent Form or it has been read to you. You have been told why this research is being done and what will happen if you take part in the study, including the risks and benefits. You have had the chance to ask questions, and you may ask questions at any time in the future by contacting Peggy Ward-Smith at wardsmithp@umkc.edu or Ericka Sanner-Stiehr at ejs8d6@mail.umkc.edu. By signing this consent form, you volunteer and consent to take part in this research study. You will receive a copy of this consent form for your personal records.

_____ _____

Signature (Volunteer Subject) **Date**

_____

Printed Name (Volunteer Subject)

_____ _____

Signature of Person Obtaining Consent **Date**

_____

Printed Name of Person Obtaining Consent

APPENDIX D

INFORMED CONSENT FOR ATTENTION-CONTROL SITE

Lateral Violence Response Training for Nursing Students

The School of Nursing at Avila University supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty to your grade in this or any other course or your standing at Avila University.

We are interested in studying the effects of an intervention on your self-efficacy in responding to lateral violence appropriately. You will be participating in one session that will involve filling out some questionnaires, group activities, and talking with the researcher. It is estimated that this will take no more than one hour of your time.

The content of the intervention concerns lateral violence (workplace bullying), and so there is a chance that you might feel slightly uncomfortable with some of the materials and topics addressed in the research.

Participation may benefit you by increasing your self-efficacy in responding effectively to lateral violence. We believe that the information will be useful in developing future interventions to benefit nursing students and will contribute to scholarly research in nursing.

Your participation is solicited although strictly voluntary. We assure you that your name will not be associated in any way with the research findings. The information will be identified

only by a code which you will develop and cannot be connected to you. No identifying information will be collected. Results will be reported in the Primary Investigator's dissertation and to any funding agencies involved in this research.

If you would like additional information concerning this study before or after it is complete, please feel free to contact me by phone or mail. If you have concerns or questions about your rights as a research participant you may contact the XX University Institutional Review Board at 816-501-3759 or XX individual at kingsm@mail.avila.edu.

Sincerely,

Ericka Sanner-Stiehr, RN, BSN, PhD(c)

Principal Investigator

University of Missouri- Kansas City

2464 Charlotte Kansas City, MO 64110

(913) 636-3536

_____

Signature of subject agreeing to participate

With my signature I affirm that I am at least 18 years of age and have received a copy of the consent, form to keep.

APPENDIX E

LATERLA VIOLENCE RESPONSE TRAINING

Lateral Violence Response Training

Objective:

This one-hour two-part intervention was designed to educate participants about lateral violence and provide an opportunity to practice appropriate responses to the 10 most prevalent forms of lateral violence. The objective of this intervention was to increase participants' self-efficacy in responding to lateral violence appropriately through Social Skills Training.

Part 1: A short 10-minute informational educational presentation information specific to the definitions, examples, and negative consequences associated with lateral violence, and behaviors expected of professionals. Participants were invited to engage in this part of the intervention, by sharing experiences and participating in discussion.

Part 2: Social Skills Training, a form of Cognitive Behavioral Therapy, is designed to enhance communication skills between individuals and groups. Three essential steps of Social Skills training include: modeling, behavioral rehearsal, and feedback for responses. Part 2 included a group discussion of the participants' experiences with both previous exposure to workplace bullying and with the intervention, as the crucial step of feedback, within this process.

Modes of Delivery:

Part 1 was delivered by the PI verbally.

Part 2 was delivered through pre-scripted, interactive conversations. First, participants observed the PI and research assistant role-play example scenarios, demonstrating appropriate responses to lateral violence. Second, participants rehearsed interactions in pairs, guided by prepared dialogues. Third, participants received feedback about their responses through the dialogue exchange. Appropriate responses were responded to with positive

responses from their partner. The PI and research assistant also provided individual feedback as necessary.

Following the intervention, a discussion, guided by the PI, provided an opportunity for participants to share their perceptions of the experience and pose any questions they may have.

Scenarios

Scenario #1: Non-verbal innuendo

Bully: (Rolling eyes, sighing about the new nurse)

New Nurse: I'm sensing from your expression that there is something you'd like to say to me. It's ok to speak to me about it.

Bully: No, I don't have anything to say.

New Nurse: Okay. But remember if you want to tell me something, you can.

Scenario #2: Verbal affronts

Bully: I don't know why you never get this right. We've gone over this a million times!!

New Nurse: I'm sensing that you are frustrated. I am frustrated too because I want to learn this. I feel like I learn best from people who give me really clear feedback. Can you explain it differently?

Scenario #3: Undermining

New Nurse: Can you please help me with this new procedure with my patient?

Bully: I'm busy right now (playing on cell phone, clearly not busy). You'll need to find someone else.

New Nurse: I want to make sure I deliver my patient care safely. When do you think you will be available to help?

Scenario #4: Backstabbing/Gossiping

Bully: Did you hear that Mary might get fired? I hear it was because of…

New Nurse: (Interrupts) I don't feel comfortable talking about Mary when she is not here. It feels disrespectful. Have you talked to Mary about this?

Scenario # 5: Withholding Information

(The lab calls to your unit to report a critical lab value on your patient. This lab value will determine the medications you give and how safe your care is. The bully on the unit takes the call and records the value but does not tell you about it. This delays your care and potentially causes you to make errors, since you don't have the information you need. You find out about this when you call the lab to check on the results and they tell you they have reported the value to the bully over an hour ago)

New Nurse: It is my understanding that there was information available about this situation. What can you tell me about this?

Scenario #6: Sabotage (deliberate set up for failure)

(You see that you have five patients assigned to you, while the other nurses on the unit have only two patients. In this case, the bully is the charge nurse who has made the unfair patient assignments)

New Nurse: I noticed that the patient assignments didn't seem equal today. I think there may be more to this situation. Can we meet privately to discuss this?

Scenario #7: Infighting/Bickering

(The bully comes to you, picking an argument about something, in the middle of the nurses' station. There are patient's family members nearby in the hallway.)

Bully: (may ad lib any argument he/she wishes- just start picking a fight and bickering at the other person)

New Nurse: (Puts hand up) This is not an appropriate time or place to discuss this. Let's move to someplace private to continue this conversation. (Walks away)

Scenario #8: Failure to Respect Privacy

Bully: Did you hear?!?! I heard Jim on the phone the other day and I think his wife is filing for divorce and custody of their kids. It sounded like he was talking to his attorney! Can you believe that? It's probably because he's having an affair…

New Nurse: I don't think that sounds like any of our business. It bothers me to talk about that without his permission.

Scenario #9: Broken Confidences

(The bully found your co-worker vomiting in the bathroom the other day and she confided to you that she recently found out she was pregnant. She has asked you not to tell anyone.)

Bully: Hey did you hear that Jane is pregnant? She was throwing up in the bathroom the other day and she ended up telling me… but don't tell anyone because I don't think she wants anyone to know.

New Nurse: I don't feel comfortable discussing her personal situation. Wasn't that told to you in confidence?

Scenario #10: Scapegoating

(One of your patients recently had a poor outcome. The bully tells people that it was because of your care. In reality, it is because the blood work got contaminated in the lab, the CT scanner was down, the physician didn't return the phone call, etc. In short, it wasn't your fault but the bully is making you the scapegoat for it.)

New Nurse: I don't think that's the right connection.

APPENDIX F

TIME MANAGEMENT TECHNIQUES FOR NURSING STUDENTS

Time Management Techniques for Nursing Students

Objective: The objective of this intervention was to educate participants about effective time management and planning, as a stress-reduction strategy.

Content Description: This one-hour, three-part intervention will provide participants in the attention-control group with practice in planning weekly activities.

Part 1: Participants engaged in a guided discussion about stress and time management for nursing students.

Part 2: Participants practiced organizing weekly activities by arranging them on a weekly calendar, provided by the PI.

Part 3: Participants engaged in a short discussion about challenges they faced in including time for all necessary weekly activities.

Modes of Delivery:

Part 1: Discussion was lead verbally.

Part 2: Scheduling practice was performed on paper, individually.

Part 3: Discussion was led verbally.

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