RELATIONSHIPS OF PERCEIVED DIRECT SUPERVISOR AFFILIATION,

DIRECT SUPERVISOR LEADERSHIP STYLE,

AND NURSES' VOICE BEHAVIOR

A DISSERTATION

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COLLEGE OF NURSING

BY

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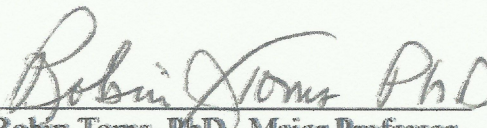
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DECEMBER, 2014

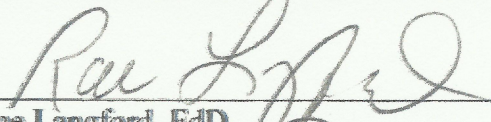# TEXAS WOMAN'S UNIVERSITY

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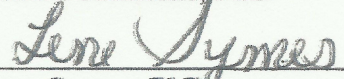
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To the Dean of the Graduate School:

I am submitting herewith a dissertation written by Gina Aranzamendez entitled "Relationships of the Perceived Direct Supervisor Affiliation, Direct Supervisor Leadership Style, and Nurses' Voice Behavior." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Nursing Science.

_____
Robin Toms, PhD, Major Professor

We have read this dissertation and recommend its acceptance:

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ABSTRACT

GINA ARANZAMENDEZ

RELATIONSHIPS OF PERCEIVED DIRECT SUPERVISOR AFFILIATION, DIRECT
SUPERVISOR LEADERSHIP STYLE, AND THE NURSES' VOICE BEHAVIOR

DECEMBER 2014

Patient safety and quality improvement in healthcare have been underscored since

the Institute of Medicine (IOM) published its landmark report To Err is Human: Building

a Safer Health System (Kohn, Corrigan, & Donaldson, 2000). One of the central tenets

of quality improvement is the belief that people are forthcoming about quality issues. The

reluctance of nurses to speak up about their issues and concerns has a negative impact on

patient safety and on the organization's ability to learn from error. The purpose of this

study is to explore the relationship of perceived direct supervisor leadership style, the

quality of leadership affiliation, and the voice behavior of clinical nurses.

A cross-sectional survey study was conducted during the summer of 2014.

Members of the Houston Chapter Oncology Nursing Society were invited to participate

and encouraged to forward the invitation to nurse colleagues currently working in

oncology care settings in the greater Houston area. 154 nurses responded to the survey

but due to inclusion criteria and completeness of the survey, only 146 were used in the

analysis.

Hierarchical regression analysis was used to answer the research questions. After controlling for age, tenure, gender, and work shift, the contextual leadership characteristics showed a significant influence in the clinical nurses' voice behavior explaining 25.4% of the variance. After entry of the perceived psychological safety, the overall variance explained by the model as a whole was 26.4%. However, perceived psychological safety did not show mediating influence between leadership characteristics and voice behavior of clinical nurses. In the final model, leadership affiliation made a significant unique contribution to the variance, $\beta = .262$, $p = 0.054$.

Result of this study affirmed the importance of the direct supervisors' contextual characteristics in promoting voice behavior among clinical nurses. It also illustrated the significant impact of the clinical nurses' perception on their direct supervisor's affiliation and their decision to engage in speaking up about their work-related improvement areas.

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CHAPTER I

INTRODUCTION

The increasing demands for higher quality care underscore the importance of

continuous quality improvement in healthcare. The Institute of Medicine (IOM) report,

To Err is Human (IOM, 2000) started a wave of increased vigilance and discriminating

examinations at how healthcare systems work. Since its release in 2000, a host of studies

were conducted to better understand quality management, methods for process

improvements, and tools and techniques for quality improvement. Although the

importance of quality improvement is acknowledged almost universally, the

implementation, measures, and sustainability of effective improvement are still not well

understood. Three decades after the initial release of the IOM report, a study conducted

by (James, 2013) shows that the patient harm epidemic is unrelenting. This is congruent

with the report given by the Agency for Healthcare Research and Quality (AHRQ, 2011),

that while the healthcare quality is improving, the pace of that improvement is less than

desirable. Berwick (2011) challenges healthcare professionals to rescue healthcare. To

rescue healthcare is to improve value and increase quality of healthcare through

continuous quality improvement efforts.

In many studies done on the topic of quality and performance improvement, the

organization's culture of safety was found to be a consequential catalyst for the

improvement process (Shortell et al., 1995; Wakefield et al., 2001). In addition, work environments that support Continuous Quality Improvement (CQI) efforts are seen to be more important than simply having a CQI processes in place (Rathert & Fleming, 2008). A work environment that supports CQI focuses on learning from the frontline staff. Staff at the frontline continuously question and look for better processes as they feel that their voices are heard (Laschinger & Leiter, 2006; Purdy, Laschinger, Finegan, Kerr, & Olivera, 2010).

Problem of Study

Quality improvement is at the heart of patient safety. Nurses, who act as front line staff, are in the best position to identify issues and concerns that affect the care of their patients. They have firsthand knowledge of what works and what does not work. Their reluctance to voice concerns and issues has grave implications with regard to patient safety and an organization's ability to learn from error. Voice behavior is defined by Van Dyne and LePine (1998) as a "promotive behavior that emphasizes expression of constructive challenge intended to improve rather than merely criticize. Voice behavior involves the use of one's voice to make innovative suggestions for change and recommendations for modifications to standard procedures even when others disagree." (p. 109).

Many healthcare workers choose not to speak up about their concerns (Tangirala & Ramanujam, 2008). Failure to speak up leads to missed opportunities for organizational leaders to act upon and to improve work systems. Further investigation of

the frontline staff's concerns can lead to resolution and preventive measures that can create safer, more efficient operational processes. Therefore, it is paramount for healthcare organizations to empirically test and measure mechanisms that promote speaking up behavior among registered nurses in an acute/oncology care setting.

Purpose of Study

The purpose of this study is to explore the relationships of the direct supervisor leadership style and the quality of leadership affiliation to the voice behavior of clinical nurses. The outcomes from this study may help guide healthcare organization in promoting voice behavior to staff.

Rationale for the Study

Healthcare workers are frequently faced deciding whether to speak up or be silent regarding safety issues. The importance of speaking up, that is voicing their issues and concerns, is paramount to the success of reshaping healthcare. The growing body of literature regarding voice behavior is a sign of its importance, but it is still in its early development (Morrison, 2011).

Leadership has been identified as one of the contextual factors that promote voice behavior (Detert & Burris, 2007; Milliken et al., 2003; Morrison, 2011; Vogelsmeier & Scott-Cawiezell, 2011; Walumbwa & Schaubroeck, 2009). The direct supervisor, in particular, holds a key role in setting up work environment climate perception among staff. Direct supervisors are identified as a salient attribute of the work environment as

they are the first contact to represent the organization (Detert & Burris, 2007) and a source of social information for the organization (Zohar & Luria, 2005). Their position puts them as a recipient of employee's voiced concerns, at the same time, they hold the power to act upon the voice concern or not (Detert & Burris, 2007). In the most recent literature review, leaders who are identified as inclusive, transformative, trustworthy, change-oriented, and ethical are linked to fostering a psychological safe environment (Aranzamendez, James & Toms, 2014). Psychological safety is described as a "tacit calculus at micro-behavioral decision point (p.4)" of the consequences of taking interpersonal risk at a work place (Edmondson, 2004). If the staff members perceive that the work environment is safe, free from ridicule, retaliation, and negative feedback, they are more likely to offer their suggestions, bring forth their concerns and issues. Leaders who display inclusiveness (Nembhard & Edmondson, 2006) and responsiveness (Probst & Estrada, 2010; Wang & Hong, 2010) to the issues and concerns brought forth by employees create the perception that it is worthy to speak up and that employee opinions are welcome, sought after, and possibly catalysts for improvement.

The relationship of leadership style and the quality of leadership affiliation to the voice behavior of clinical nurses has not been fully examined. The integrative review of literature by Milliken (2011) calls for further examination of leadership's behavior as a factor that influences an employee's decision to speak up. The increasing demand in quality improvement necessitates the need for open communication, breaking the hierarchical boundaries that may exist between the frontline staff and their direct

supervisor. Although there are many factors to consider, the leadership behaviors that influence social construct cannot be ignored. Leadership behavior should be further explored to determine the level of influence leaders can exert upon the voice behavior of clinical nurses.

Theoretical Framework

Leadership is one of the contextual factors that is identified to promote voice behavior (Aryee, Budhwar, & Chen, 2002; Milliken et al., 2003). Two different theoretical perspectives on leadership will be used to provide a framework for this study. The Full –Range Leadership Theory by Bass (1985) and the Leader-Member Exchange (LMX) theory by Graen and Uhl-Bien (1995).

Full-range leadership theory incorporates three leadership styles – transformational, transactional, and passive/avoidant. Each leadership style is further described by different leadership behaviors. Bass posited that a leader can assume different leadership styles as the situation warrants. Each leadership style is further defined by different leadership behaviors. The least effective leadership style is passive/avoidant Avolio, Bass, and Zhu (2004). Passive avoidant leaders do not provide clear expectations and goals. Transformational leadership, on the other hand, is the most effective style. Bass posits that transformational leaders supersede transactional leaders who lead by social exchange (Bass & Riggio, 2006). A transformational leader is described as a person with a strong sense of mission, and one who is able to motivate members through individualized attention, charismatic personality, and shared vision

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(Bass & Avolio, 2004). As leadership style moves from transformational to passive avoidant on a continuum, the associated behavior becomes less active and more passive. Literature has shown that the more active the leader is in his/her interaction with staff the more effective she or he is as a leader (Bass & Avolio, 1995; Schermerhorn, 1996).

The Leader-Member Exchange (LMX) theory by Graen and Uhl-Bien (1995) theory focuses on the relationship between the leader and the subordinate. High quality relationship is characterized by a high level of mutual trust, respect, and obligation. Based on the leadership life cycle, the relationship between the leader and member undergoes different life cycles, and each cycle progresses in different scale. The first stage or cycle is the stranger phase characterized by pure contractual exchange. The member does the required job with minimal leadership insight. The second phase is the acquaintance phase, which involves sharing of more information and resources. In the acquaintance phase the relationship building and testing happens. Structured or unstructured negotiations are created as both member and leader seek the benefits of dedication and loyalty. The exchange of benefits and rewards between the member and the leader can create or break the line of trust and respect for one another. Once they pass the testing phase, they move to the next and final stage which is the maturity phase. In this phase, the dyadic relationship is stronger, bonded with mutual trust, respect, and obligation. The leader and the member both rely on each other's support and assistance when needed (Graen & Uhl-Bien, 1995).

Based on the dyadic social exchange, the quality of the working relationship between a leader and a member is predictive of the performance outcome (Graen & Uhl-Bien, 1995), turnover, and organizational commitment (Gerstner & Day, 1997). A metanalysis, done by Ilies, Nahrgang, & Morgeson (2007), reveals a positive relationship between high quality leader-member relationship and citizenship behavior, a discretionary behavior well beyond the job requirements. In other words, members engage in activities beyond their expected role when there is high quality leader-member relationship. This high-quality leader-member relationship may also be referred to as high leadership affiliation.

Voice behavior, is a voluntary communication of work related ideas and concerns with the main intention of promoting positive change. These expressions of ideas and concerns are usually addressed by employees to their direct supervisor and can be perceived as a challenge to the status quo (Liu, Zhu, & Yang, 2010). For this reason voice behavior is noted to have an inherent risk (Detert & Burris, 2007; Morrison & Milliken, 2000). Before an employee engages in a specific action, they mentally examine their work environment and evaluate possible consequence of that action. An immediate supervisor's behavior plays a significant role in the employee's decision to speak up or remain silent when they have potentially important information to share (Morrison, 2011; Detert & Burris, 2007). Psychological safety refers to one's perception of consequences for taking interpersonal risk in the work environment. An employee who perceives their direct supervisor to be supportive, open, respectable, and trustworthy will feel their work

environment to be psychologically safe hence more likely to engage in speaking up behavior.

Clinical nurses who perceived their direct supervisor to be a transformational leader are encouraged and supported to evaluate their environment, identify problems, and offer possible solutions. The behavioral characteristics of a transformational leader, such as inspirational motivation and intellectual stimulation, afford clinical staff to think outside the box. A well communicated goal and vision, instilled with autonomy and empowerment, is an open invitation for clinical nurses to speak up about their work related issues and concerns and offer constructive observation and suggestions. Leader's individualized consideration, through sharing and mentoring, creates an open communication and feedback loop. Consequently, clinical nurses will be inspired to speak up as they identify work related opportunities for improvements.

Leaders described as transactional are those who set and clarify their expectation and provide rewards to achieve these expectations. Clinical nurses who perceived their direct supervisor to be a transactional leader may or may not feel comfortable speaking up about their identified issues. Clinical nurses may choose to speak up about their idea or suggestion only if they think that it will positively impact their supervisor's goal. For example, if a supervisor communicates that hand washing compliance will be monitored across the institution, ideas that can enhance the hand washing compliance within the unit will be welcomed and rewarded, and nurses will freely speak up about their ideas. Whereas a weakness identified in a policy developed and approved by a transactional

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leader may not be readily communicated as this may translate into a negative feedback which could pose a risk for the nurse.

On the other hand, leaders perceived as passive in their dealings with their staff and frequently avoiding making decisions and giving guidance will have a negative impact on the staff's performance outcome. Clinical nurses may not communicate their issues and concerns because this can be seen a waste of time.

Clinical nurses that developed a high quality relationship with their direct supervisor would feel more open in speaking up about their work related issues and concerns. A well-developed trust and respect between the staff and the direct supervisor will allow the clinical nurse to voice even the uncomfortable topics without intimidation. The dyadic sense of obligation present in high leadership affiliation will further motivate staff to bring forth issues and comments that can potentially improve their work environment.

Psychological safety refers to one's perception of consequences for taking interpersonal risk in their work environment. An employee who perceives their direct supervisor to be supportive, open, respectable, and trustworthy will feel their work environment to be psychologically safe hence more likely to engage in speaking up behavior.
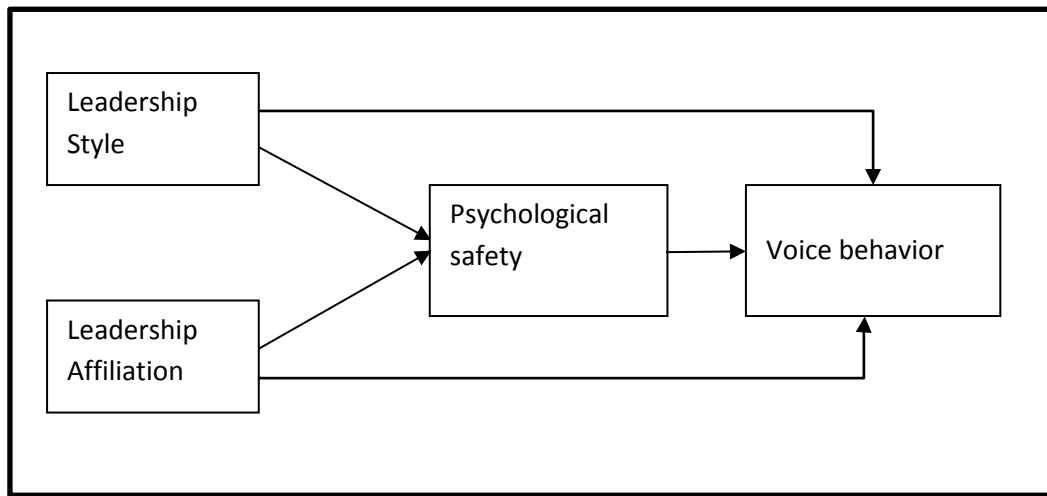
Figure 1: Conceptual model

Assumptions

1.   Direct supervisor vision and goals are aligned with the institutional vision and goals.

2.   Healthcare institutional goals are congruent with the national health and safety goals

3.   Clinical nurses are capable of identifying issues and concerns that can contribute to the overall patient care quality.

4.   Clinical nurses want to make innovative suggestions for change and recommendations for modifications to standard procedures.

Research Questions

The following research questions were developed to guide the study:

1. What is the relationship between the perceived direct supervisor affiliation, the direct supervisor leadership style, and the voice behavior of clinical nurses working in oncology care setting?

2. Does clinical nurses' perceived psychological safety mediate the relationship between the perceived direct leadership affiliation, perceived leadership style, and the clinical nurses' voice behavior?

Definition of Terms

Conceptual and operational definitions for the study's dependent and independent variables are as follows:

1. *Voice behavior:* Voice behavior is a voluntary communication of work related ideas, issues, concerns, or opinion with the main purpose of improving, changing or terminating current work process. It is a "promotive behavior that emphasizes expression of constructive challenge intended to improve rather than merely criticize (Van Dyne & LePine, 1998). Voice behavior involves the use of one's voice to make innovative suggestions for change and recommendations for modifications to standard procedures even when others disagree." (p. 109). The operational definition of voice behavior

will be defined by the voice measure by Graen, G. B., & Uhl-Bien, M. (1995).

2. *Leadership affiliation*: the association, connection, or the relationship of the leader to a member or staff. A high-quality leader-member association is signified by a high leadership affiliation. The operation definition of leadership affiliation will be measured by the Leader-Member Exchange (LMX-7) tool.

3. *Leadership style*: one's behaviors, skills, and traits used to lead others. This can be operationally defined using three style of leadership: transformational, transactional, and passive avoidant.

   a. Transformational leadership: Characterized by the leader's ability to inspire and make a change through example, articulation of vision, and commitment to achieving goals. The operational definition of transformational leadership is identified by the following attributes, "Idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Avolio and Bass, 2004).

   b. Transactional leadership: transactional leadership is a style of leadership in which the leader promotes compliance of his or her followers through both rewards and punishments. Transactional leaders recognize members when goals are achieved. They look for errors or mistakes and implement corrective action as needed. The operational

definition of transactional leadership is identified by the following

attributes: active and passive management-by-exception and contingent

reward.

c. Passive-avoidant: is an extreme form of permissive, non-directive,

passive leadership. Leaders that fall into this category fail to set

expectations among subordinates and do not give rewards to deserving

members. The operational definition of passive avoidant leadership

may be measured by the following attributes: laissez-faire and passive

management-by-exception (Bass & Avolio, 1998).

4. *Psychological safety*: is one's perception of the interpersonal risk of engaging

in a work related behavior such as speaking up.

Limitations

Limitations of the proposed study include the following:

1. A convenience sampling technique will be used in this study and the study

will target nurses working in an oncology setting in a large urban area.

Generalization of the study results will be limited to these populations.

2. The non-experimental study design excludes inferences of causation among

the variables.

3. Voice behavior is a complex construct that can be influenced by multiple

variables. This study will focus on two leadership attributes, direct supervisor

affiliation and direct supervisor leadership style as they impact the clinical nurses' voice behavior.

Summary / Short Overview

Quality improvement efforts are increasing in the healthcare arena because of the demand for high-quality care. Organizations have to adapt to the continuous and dynamic changes in health care including the quest for higher quality. Quality improvement is at the heart of patient safety. Nurses, who act as front line staff, are in the best position to identify issues and concerns that affect the care of their patients. They have firsthand knowledge of what works and what does not work. Their reluctance to voice concerns and issues has grave implications with regard to patient safety and on the organization's ability to learn from error.

There is evidence to suggest that most healthcare workers choose not to speak up about their concerns (Tangirala & Ramanujam, 2008). This poses a major handicap in the quest for higher quality and safer patient care. The consequence of not speaking up when a problem is recognized presents a missed opportunity for improvement. Speaking up is vital to ensuring a positive outcome. It is paramount for organizations to gain a better understanding of what impacts employees' decisions to speak up or be silent with their suggestions, issues, and concerns. More specifically, this study is set to explore direct supervisor behavior in shaping the clinical nurses' perception of their working environment and that it is safe to speak up.

CHAPTER II

FINDING ANTECEDENTS OF PSYCHOLOGICAL SAFETY:

A STEP TOWARD QUALITY IMPROVEMENT

A Paper Submitted and Accepted for Publication in the

Nursing Forum

Background

Quality improvement in health care has been underscored since the Institute of

Medicine (IOM) published its landmark report, To Err is Human (IOM, 2000), followed

by Crossing the Quality Chasm: A New Health System for the 21st Century (IOM, 2001).

The focus on quality improvement necessitates the need for an organization to adapt and

learn from the continuous and dynamic changes. The study conducted by Tucker and

Edmondson (2003) illustrates that operational failures are common occurrences in the

everyday work process. Edmondson (2004) reported that interpersonal climate in the

workplace has a direct effect on the employees' behavior to report or to discuss and

analyze problems or failures in the workplace. Also noted is the high prevalence of

healthcare workers choosing not to speak up about their concerns (Maxfield, Grenny,

Lavandero, & Groah, 2011). To create an improvement is to understand the processes

that need to be improved. One of the central tenets of quality improvement is the belief

that people are forthcoming and honest about quality issues. Interpersonal climates that elicit a belief about the social consequences of speaking up about sensitive topics like errors are silent but potent barriers of any improvement initiative.

There is evidence to suggest that psychological safety leads to organizational learning and team effectiveness which leads to positive outcome. The purpose of this review is to summarize current research literature illustrating environmental climates that promote and support psychological safety in the healthcare organizations. It will attempt to answer "What are the interpersonal contextual factors that foster psychological safety?"

Psychological Safety

Psychological safety is described as one's perception of consequences for taking interpersonal risk in their work environment. Edmondson (2004) described it as a "tacit calculus at micro-behavioral decision point, in which they assess the interpersonal risk associated with a given behavior" (p 4). Based on this tacit assessment, and the degree of perceived consequences, an individual can proceed or retract from a given situation (Edmondson, 2004).

In their study on organizational change, Schein, Bennis, and Blake (1965) describe psychological safety as "an atmosphere where one can take chances . . . (p 44)" which is needed for an individual to feel secure and be capable of change. In a study that examined the general psychological conditions at work, Kahn (1990) found

psychological safety as one of the contributing factors that affect the personal

engagement and disengagement at work. He observed that the association between

feeling safe and showing one's self reflects a tenet of clinical therapeutic work involving

individuals, relationships, families, groups, and organizations. Psychological safety was

described as "feeling able to show and employ one's self without fear of negative

consequences to self-image, status, or career" (Kahn, 1990, p. 708).

Psychological safety has been found to promote team learning behavior and

consequently enhancing team performance (Edmondson, 2004). Perceived psychological

safety in a group encourages giving and seeking feedback (Wang & Hong, 2010; Wilkens

& London, 2006), which in turn advances creativity and improves decision-making and

the group's outcome without damaging team interaction (Bradley, Postlethwaite, Klotz,

Hamdani, & Brown, 2012; Wilkens & London, 2006). Drawing from Dewey's learning

theory, Edmondson conceptualized learning as an ongoing process of reflection and

action characterized by seeking feedback, reflecting, asking questions and discussing

problems, issues, and/or concerns. Team members who perceive they are psychologically

safe are more confident to engage in learning behavior that leads toward goal

achievement and overall improved outcomes.

Psychological safety enables team members to bring forth concerns and issues

that in turn afford the team a valuable source of information. It facilitates the climate of

productive discussion, creating opportunities for improvement that can lead to overall

organizational improvement. Edmondson (1996) found that team self-correcting

behaviors were more prevalent in units in which members were less concerned about being caught making a mistake. She noted that high performing groups had higher error rates than lower performing groups. Looking more deeply into this puzzling result, Edmondson found that the difference was in the perceptions of the risk of reporting medication errors. Units with high error rates had members who openly acknowledged medication errors and discussed ways to avoid their recurrence; units with the lower error rates had members who kept their knowledge of a drug error to themselves. This is congruent with other studies that reported a significant relationship between psychological safety and the teams' willingness to learn from failure (Carmeli & Gittell, 2008). In addition, psychological safety has also been found to have a positive impact on employees' organizational commitment.

In the healthcare arena, where the stakes in delivering high-quality care are higher, the consequences of a psychologically safe environment become vital in ensuring a positive performance outcome. Staff should be comfortable speaking up, which in turn can lead to improved patient safety. With the increasing and ever changing demands in health care, it is imperative to gain a better understanding of the factors which foster psychological safety. This can better equip organizations and their leaders in the promotion of psychological safety.

Literature Search Strategies and Methods

An integrative literature review process outlined by Whittemore and Knafl (2005) was followed. A search was performed on Medline, CINAHL, Scopus, and PsycINFO databases for English research articles on quality improvement in the period from January 2000 to present. Initially, the search was done on Medline using free text terms describing "psychological safety" or "performance improvement" or "quality improvement"; these were combined with the keywords "work environment" or "organizational culture" or "leadership" or "acute care" or "organizational structure." These steps were repeated for the other databases. In addition, ancestry approach (Cooper, 1998) was utilized to examine citations from relevant research reports.

In an effort to have an extensive literature review of the subject, help from a librarian from a large medical center was solicited. She performed the search on Scopus, Web of Science, Business Source Complete, and Psychology and Behavioral Sciences Collection using the keywords "climate" and "psychological safety" or "psychosocial safety."

Selection of Articles

Research articles were selected based on the following criteria: (a) primary studies of how an individual or team member develops psychological safety; and (b) studies illustrating environments supportive of psychological safety. Schematics were created (Table S1) emphasizing the research question, research design, sample size, and

result. These articles were reviewed to determine the factors in the work environment which contributed to psychological safety. Identified factors were then sorted and grouped based on common characteristics. They were reviewed to identify gaps and areas that need further study. Study articles that focused on tool review and testing were not included in the study, nor were articles on psychosocial studies.

Findings

Themes identified were grounded in the interpersonal contextual factors. Two major themes identified were leadership behavior and network ties. Leadership behaviors were further divided into subcategories: leadership inclusiveness, change-oriented behavior, trustworthiness, and ethical leadership. The behaviors of leaders played a critical role in promoting psychological safety. Leaders are pivotal for removing the constraints that often discourage followers from expressing their concerns and other ideas. Multiple studies have identified different leadership behavior as key antecedents of psychological safety (Bienefeld & Grote, 2012; Carmeli & Gittell, 2008; Detert & Burris, 2007; Edmondson, 1996, 1999; Halbesleben & Rathert, 2008; Hirak, Peng, Carmeli, & Schaubroeck, 2012; Li & Yan, 2009; Milliken, Morrison, & Hewlin, 2003; Nembhard & Edmondson, 2006; Probst & Estrada, 2010; Rathert, Ishqaidef, & May, 2009; Schaubroeck, Lam, & Peng, 2011; Schulte, Cohen, & Klein, 2012; Walumbwa & Schaubroeck, 2009; Wang & Hong, 2010). Network ties, the second theme identified, highlights the significance of a positive relationship between the leader and the team member(s) in the development of psychological safety.

Leader Inclusiveness

Leader inclusiveness, defined as "words and deeds by a leader or leaders that indicate an invitation and appreciation for others' contributions" (Nembhard & Edmondson, 2006, p. 947), has been found as one of the leadership behaviors that promote psychological safety. Nembhard and Edmondson (2006) suggested leaders that indicate an invitation and appreciation for team members' participation can be perceived by members as accepted and valued, therefore increasing psychological safety. Nembhard and Edmondson (2006) investigated factors which promote engagement in quality improvement work in the interprofessional healthcare setting; they found leader inclusiveness predicts psychological safety.

Hirak et al. (2012) conducted a study with 277 unit members from 67 work units in a large hospital in Israel and examined the relationship between leadership inclusiveness and unit performance. The authors reported that leader inclusiveness plays a significant role in facilitating psychological safety, thereby potentially enabling the unit to better learn from its failures and, in turn, enhance its performance. This is congruent with other studies that found leaders who exhibit openness, accessibility, availability, fallibility (Edmondson, 1996, 2004; Nembhard & Edmondson, 2006), and approachability (Milliken et al., 2003) lower the threshold for fear of interpersonal risk which aids team members in work engagement and innovation, thereby potentially increasing group performance. In a time-lag study (10 months) by Detert and Burris (2007), they reported leadership openness consistently showed to be a significant

predictor of employee's decision to speak up on phase I and phase II study of a time-lag

study. Baer and Frese (2003) linked managers' openness to creating a climate of

initiative. They reported a significant correlation between climate for initiative and

climate for psychological safety. Employees that felt supported and encouraged to bring

forth issues and concerns were more likely to feel safe showing initiative without fear of

reprisal.

Team leaders must assure that issues and concerns brought forth by team

members are given a fair consideration (Edmondson, 2003; Tucker, 2007) and

appropriate action (Detert & Burris, 2007; D. Wang & Y. Hong, 2010). This is congruent

with findings in which Probst and Estrada (2010) reported the perceived supervisor's

responsiveness and degree of policies enforcement is a predictor of accident

underreporting in five industrial facilities.

Change Oriented/Empowering

Improvement is one of the desired consequences of psychological safety.

Improvement implies change. Rathert and Fleming (2008) described continuous quality

improvement (CQI) leadership behaviors as making team members feel valued for their

contributions, motivating team members to embrace shared goals, getting facts before

making decisions, and facilitating communication across professional boundaries. Such

behaviors will enhance the interpersonal dynamics and effective teamwork across

disciplines, thereby increasing the perception of psychological safety. Nembhard and

Edmondson (2006) found that team leaders who facilitated collaboration across professional boundaries increased psychological safety among lower status team members. Such teams were characterized by interpersonal trust and respect, and were more likely to participate in quality improvement efforts.

Several studies examined the employee's perception of attributes of the work environment to better understand the variables that can facilitate success on quality improvement implementation (Halbesleben & Rathert, 2008; Rathert, Ishqaidef, & May, 2009; Rathert & May, 2008). The authors reported management style, characterized by encouraging employee's vigilance to their work processes and empowering them to influence change without fear of reprisal, creates the climate of psychological safety that in turn facilitates learning from failure. This is congruent with a related study done by Rathert et al. (2009). Rathert and colleagues described management style which supported CQI influenced outcome variables including psychological safety. Wang and Hong (2010) found that supervisory support can increase team psychological safety which can lead to team creativity.

Leadership styles that support quality improvement efforts most likely foster an environment with high-quality relationships. High-quality relationships (Carmeli & Gittell, 2008), as manifested by shared goals, shared knowledge, and mutual respect, create a positive social context in which people feel safe to perform and to engage in work processes and tasks that lead to increased perception of psychological safety.

Trustworthy

Edmondson (2004) noted that team members' trust toward the leader is needed to develop psychological safety. Further, such trust is not related to rational expectations, but rather is conceived in a relational way in which "choices are more affective and intuitive rather than calculative" (p. 243). When members have a strong and favorable emotional connection with the leader, this positively influences the team members to be open in sharing information with the team (team members and leader) in a way that promotes team performance (Schaubroeck et al., 2011). Such trust is associated with

the expectation that the leader supports a team context of respect which allows members to speak up without fear of recriminations from each other or the leader.

Schaubroeck et al. (2011), in their study, suggested that the leader's behavior, transformational leaders and servant leadership, can foster cognitive and affective base trust that can in turn promote psychological safety. Transformational leadership refers to leader behaviors and communications that elevate followers' interest in furthering the collective purposes of groups and organizations (Bass, 1985). Servant leadership is conceptualized as a leadership approach that emphasizes serving others, building a sense of community, emphasizing teamwork, and sharing power (Walumbwa, Hartnell, & Oke, 2010). The authors argued that transformational leadership can elicit cognitive-based trust while servant leadership corresponds to affective base trust. Drawing from

McAllister's (1995) framework, the authors suggested that once employees reach a cognitive level of trust, they are more ready to develop affective-based trust.

Along the same line, Li and Yan (2009), also drawing from the McAllister (1995) assumption, examined the relationship of trust climate in developing the level of psychological safety and how it impacts task performance. The authors argue that cognitive trust lays the foundation ensuring the feeling of safety to express ideas and concerns. In addition, affective trust helps reduce the fear for the potential loss, as a result of taking interpersonal risks, fortifying individual psychological safety. The results of their study showed a mediating effect of psychological safety between climate of trust and task performance. Perceived trust among team members creates a safe environment which promotes positive psychological conditions that lead to increase task performance.

Team leaders must assure that reflection follows action (Edmondson, 2003; Tucker, 2007) and must be given fair considerations (Detert & Burris, 2007; Wang & Hong, 2010). This is congruent with the findings reported by Probst and Estrada (2010) that the perceived supervisors' responsiveness and degree of policy enforcement is a predictor of accident underreporting in five industrial facilities.

Ethical Leadership

Conscientiousness, agreeableness, and neuroticism, derived from Brown and Treviño (2006), are the three individual traits that Walumbwa and Schaubroeck (2009) included in their study, linking ethical leadership to psychological safety. Ethical leaders

are described to value honest and truthful relations with their subordinates. They act according to their "fundamental values and beliefs, rather than to respond to external pressures and transitory interests" (Walumbwa & Schaubroeck, 2009, p. 1276). As cited previously from other studies, the authors agree that leaders' openness and truthfulness can promote interpersonal trust and mutual respect within the team. In addition, leaders that demonstrate high personal moral standards create a work environment that hinders social undermining, blaming, and unfair punishments (Rathert & Fleming, 2008; Walumbwa & Schaubroeck, 2009). Employees that perceive their leaders to have sufficient ability, benevolence, and integrity will engage in interpersonal risk taking. The result of Walumbwa and Schaubroeck's (2009) study found that ethical leadership predicted psychological safety.

Network Ties

Drawing from social learning theory, in which learning is described as a relational activity involving human interactions, Carmeli (2007) posits that social capital is an important factor that builds psychological safety. Through the interactions among and between participants, better understanding and knowledge are created. At the same time, the quality of interpersonal relationships that arise from this interaction creates a shared perception of safe interpersonal risk taking (Carmeli, 2007). Schulte et al. (2012) argued that emergent team states and team social network ties are each key antecedents of the other; that two are mutually influential and coevolve over time. In other words, the team member's perception of the team and the team member's social network are likely to

coevolve. In a dyad or group interaction, each individual brings his/her own beliefs and perceptions based on their previous experiences. Each team member reacts to a situation based on his/her previous knowledge and beliefs, which in turn can influence other beliefs and perceptions and, consequently, their actions/reaction. Schulte et al.'s (2012) framework and findings illustrate the varied, complex, and intertwining mechanisms by which team members' perceptions of their team's psychological safety and team members' ties, of advice, friendship, and difficulty, may coevolve. Implications from this study support several studies previously mentioned. Leader inclusiveness that can be characterized by seeking opinions and suggestions from team members can increase perceived psychological safety. This is related to the "reaction mechanism" which refers to an individual perception, based on the network ties they receive, and may influence the individual's subsequent perceptions of the team. Other mechanisms that are found to support the relationship between network ties and psychological safety give confirmation to the importance of leadership involvement in fostering and increasing psychological safety of the team. Prospective action refers to the mechanism in which one's perceptions of the team influence the ties he/she "sends" and assimilation refers to the mechanism where one's perception of the team becomes similar to those to whom they send ties.

Discussion

This review set out to examine the current literature regarding the contextual factors that foster psychological safety. The findings show the complex dyadic interplay between leaders and team members. The current literature supports the significant role of

leaders as one of the major contextual influences in promoting a psychologically safe environment. The important consequences of psychological safety are profound. Employees or team members who feel psychologically safe tend to engage in more quality improvement efforts (Nembhard & Edmondson, 2006), they are more open to learning from failure (Carmeli & Gittell, 2008), and have less workarounds (Halbesleben & Rathert, 2008). Furthermore, psychologically safe staff also tend to be more engaged in their work (May, Gilson, & Harter, 2004; May et al., 2004), thereby increasing job performance (Detert & Burris, 2007; Edmondson, 1999; Hirak et al., 2012; Li & Yan, 2009; Schaubroeck et al., 2011). In the healthcare arena, where stakes in delivering high-quality care are higher, the consequences of a psychologically safe environment become vital in ensuring a positive performance outcome. Improvement in patient safety could stem from identifying concerns and issues and correcting imperfect processes. With the increasing and ever-changing demands in health care, it is imperative to gain a better understanding of the factors that foster psychological safety. This can better equip organizations and their leaders to promote a climate of psychological safety.

The findings of this integrative review suggest that there are specific leadership behaviors, rather than generically positive or personalized behaviors, which may be needed to offset the perceived interpersonal risk of employees in voicing concerns and issues that can further open the door for improvement efforts, elimination of workarounds, and increasing employee work engagement. These leadership behaviors—leadership inclusiveness, trustworthiness, change oriented leaders, and ethical

leadership—can elicit psychological safety among employees to overcome employee restraint. Specific leadership behaviors identified in this review are not conflicting, but complementary. Leadership behaviors and network ties are attributes an organization can modify and develop by training or other types of interventions. The challenge lies in how to cultivate a leader's ability to identify and implement specific leadership behaviors warranted for a specific situation. Edmondson (2004) suggested that "practice fields," referred to as "dry-runs" or simulations, may enable leaders to practice and learn from failure without the real consequences. However, there is much more to be learned. Studies still report employees' reluctance to voice their concerns and issues (Detert & Edmondson, 2011; Milliken et al., 2003). The airline industry has a long-established "just culture" practice (Dekker, 2007), which means that their crew members feel safe and supported when voicing issues and concerns. In the most recent study on Airline Company, Bienefeld and Grote (2012) revealed that crew members are still reluctant to speak up even though they are aware they should for safety. The question regarding why and what makes someone decide it is safe to speak up about their concerns and issues continues. Edmondson (2004) described psychological safety as interpersonal beliefs that can vary from team to team, even to the organization with strong context and culture.

The literature shows that there is room to explore psychological safety in healthcare settings. Organizations in high-reliability industries like health care are under tremendous pressure to improve the patient experience and increase the overall value of health care, to include achieving basic day-to-day operational effectiveness. Further

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research is warranted to examine specific factors employees and healthcare clinicians should consider when making a choice of speaking up or not.

Conclusion

Psychological safety is grounded in elusive interpersonal beliefs and predictions. Although studies in a variety of work settings make explicit that there are actions leaders can take to build psychological safety, it cannot be mandated or altered directly. In this sense, theory and practice related to psychological safety must be advanced by research. Specific leadership behaviors found in this review, leadership inclusiveness, trustworthiness, change-oriented leaders, and ethical leadership, can foster a psychologically safe environment. The development of such leadership behaviors must incorporate cultivation of the different domains of leadership. Leadership development programs must be designed to cultivate the ability of a leader to identify when to implement a specific leadership domain, being sensitive to the individual needs and context, in order to develop and sustain a psychologically safe environment. The complexity and ever changing environment in health care and the demand for safety, efficiency, and effectiveness require a leader that can adapt and engage in behaviors as the situation warrants. An examination of specific leaders' behaviors that establish psychological safety highlights the importance of understanding the development of each behavior, in addition to its application synchronous with the need of team members.

Supplemental Literature Review

The increasing demands from regulatory agencies, intensive competition, and impact of technological advances have put a strain on an already complex healthcare environment. Organizations must learn to adapt to the ever changing healthcare terrain. Many studies have illustrated the need for organizational learning (Edmondson, 2004; Tucker, 2004; Tucker & Edmondson, 2003). Healthcare organizations and their leaders need the information and feedback from their staff in order to make sound decisions. A study by Milliken, Morrison, and Hewlin (2003) showed that 85 % of their sample (34 of 40 industrial employees) chose to be silent regarding the issues that they felt were important. Bienefeld and Grote (2012), in their study on airline crew members, reported that even with an airline industry, renowned for their training and adherence to "just culture" (Dekker, 2007), crew members commonly chose to refrain from speaking up about their issues and concerns. The same trend is noted in the healthcare arena. Many healthcare workers choose not to speak up about their concerns (Maxfield, Grenny, McMillan, Patterson, & Switzler, 2005; Tangirala & Ramanujam, 2008). Every time an employee chooses to be silent, it is a lost opportunity to learn, to improve and to create a safe and high quality patient care.

Swiss Cheese Model

Healthcare personnel are in business with the main objective of serving their clients. Yet despite their efforts and vigilance to provide the best possible care, mistakes

happen. Reason's Swiss cheese model (2000) provides a good illustration of the how

failures happen in complex organizations such as healthcare institutions. Based on his

analogy, the layers of cheese are the protective barriers put in place by the institutions;

institutional policies and procedures are good examples. The holes in the Swiss cheese

represent the unintended weaknesses of the system or the human limitations. These holes

or unintended weaknesses can happen anytime, anywhere, and at varying degrees

creating big and small holes.

Human limitation can lead to unintended mistakes but these mistakes do not

always reach the patient or cause harm. Different layers of protection, in this illustration,

the Swiss cheese, may catch the mistake allowing for corrective action before harm

results. Nevertheless, there are times that, within the layers of Swiss cheese, the holes or

the weakness will align perfectly. When aligned perfectly, a mistake may pass through

and an untoward or sentinel event may happen. This perfect alignment of holes illustrates

system failure, caused by complex, small and large, intertwined networks of events. This

also illustrates the need to patch the holes or weaknesses in the system as soon as they are

identified. Small holes or weaknesses that might seem insignificant at the time, when left

uncorrected, can one day align with other holes, causing perfect alignment leading to

sentinel events. Nursing staff must be encouraged to speak up regarding issues or small

holes in the system and to express their concerns to leaders. This speaking up or voicing

behavior will allow leaders to further analyzed the problem and develop appropriate

courses of action to prevent events leading to patient harm. The more holes we can patch up, the stronger the barrier.

Failure to speak up leads to missed opportunities for organizational leaders to act upon and improve work systems. Further investigation of the issues and concerns of frontline staff can lead to resolution and preventive measures that can create safer, more efficient operational processes. Therefore, it is paramount for healthcare organizations to empirically test and measure mechanisms that promote voice or speaking up behaviors among registered nurses.

Speaking up Behavior

The increasing demand for high quality care necessitates healthcare teams and organizational leaders to make informed decisions, design effective strategic plans, and to engage in continuous quality improvement initiatives. Frontline staff has the knowledge of what works and what does not, what can be eliminated, and what can be done better. Work related issues, concerns, and ideas voiced by the employees are information that can be further analyzed, worked on, and corrected.

Hirschman (1970), in his model of exit, voice, and loyalty, first suggested that workers' voice was a response to organizational dissatisfaction. Dissatisfied workers can either leave the company or voice their issues and concerns. Freeman and Medoff (1984) expanded the concept of voice with the assertion that voice can be beneficial to both the employees and employers. The awareness that employees have the firsthand knowledge

of the source of dissatisfaction, issue, and opportunity to improve the overall organizational well-being spark the importance of employee's voice behavior. The literature on voice behavior has grown in recent years, but its development is still in the early stages (Fuller, Barnett, Hester, Relyea, & Frey, 2007; Morrison, 2011).

A key question concerns which factors influence the employee's decision to speak up or remain silent when she or he identifies an area of concern regarding their work. Voice behavior implies constructive change (Detert & Burris, 2007; Van Dyne & LePine, 1998). Employees who speak up regarding their work related concerns anticipate that a corrective action or a positive change needs to occur. Since the immediate supervisor or a person with authority is often the recipient of this communication, speaking up behavior is often risky (Detert & Burris, 2007; Morrison & Milliken, 2000). Even with good intention, employees voicing their ideas and concerns to their supervisor, can be seen as a challenge to the status quo (Liu, Zhu, & Yang, 2010).

Several studies have focused on identifying factors that influence the speaking up behavior in organizations. Contextual factors such as organizational structure and climate (Morrison & Milliken, 2000; Pinder & Harlos, 2001) as well as individual factors such as experience and tenure (Detert & Burris, 2007; Tangirala & Ramanujam, 2008) are linked to organizational voice behavior. Implied in the definition of voice behavior is the fact that it is a voluntary communication regarding concerns regarding operational activities, policy related issues, or dissatisfying work-related observations. Before an employee

engages in speaking up behavior, a mental analysis of the work environment happens to ascertain the cost-benefit of this action.

Immediate supervisor's behavior plays a significant role in the employee's decision to speak up or remain silent when they have potentially important information to share (Morrison, 2011; Detert & Burris, 2007). Their role in creating a psychologically safe environment has been a salient factor in voice behavior (Detert & Burris, 2007; Wong & Cummings, 2007). Psychological safety refers to one's perception of consequences for taking interpersonal risk in their work environment. An employee who perceives their work environment to be psychologically safe will be more likely to engage in speaking up behavior.

In a study with general managers and employees of a restaurant chain, Detert and Burris (2007), reported a significant relationship between leadership openness and employee's voice behavior. Leaders who are willing to listen and show readiness to take action create an environment that is less risky for employees to speak up. In the same study, transformational leadership showed a correlation with the employee's voice, but not as consistent as the leadership openness. This is congruent with the study done by Gao et al., (2011) when they explored trust in leadership in promoting employee voice with telecommunication employees in China. They found a positive correlation between trust in leadership and employee voice. However, further analysis showed that this relationship only emerges when employees perceive that leaders are open and inviting

regarding their opinion and concerns. As pointed out by Detert and Burris (2007), leadership openness sends a clearer indication that voice is welcome.

Wong and Cummings (2007) reported that authentic leaders who display optimism, commitment to others, open and transparent communication, and who practice with ethical standards, have an indirect effect on voice behavior. Authentic leaders foster a trusting relationship with the staff that leads to increased work engagement and promotes comfort for the staff to voice their ideas and concerns.

Several studies have looked at the factors that affect the voice behavior. However, there is limited empirical research in nursing linking leadership and voice behavior. The importance of fostering/promotive voice behavior in the clinical setting warrants further investigation. Do clinical nurses perceive psychological safety in their workplace? Does the clinical nurses' perception of psychological safety translate to a perception of voice behavior? Does leadership style, defined by the leader's behavior, promote voice behavior among clinical nurses?

There is a call for nurses to be full partners in redefining healthcare. Nurses are the largest section of the healthcare workforce (IOM, 2010). A work environment perceived to be psychologically safe can increase the voicing of work-related ideas and issues among nurses. This confident voicing will advance nursing as a profession and as a full partner in creating high quality care and improved healthcare outcomes.

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CHAPTER III

EFFECT OF LEADERSHIP BEHAVIORS ON CLINICAL NURSES' VOICE

BEHAVIOR

A Paper Submitted For Publication in the

Journal of Nursing Management

Background

The increasing demands for higher quality care underscore the importance of continuous quality improvement in healthcare. Inherent in any improvement initiatives is the knowledge of what needs to be improved. Nurses, who act as front line staff, are in the best position to identify issues and concerns that affect the care of their patients. They have firsthand knowledge of what works and what does not work. Their reluctance to voice concerns and issues has grave implications with regard to patient safety and an organization's ability to learn from error. Voice behavior is defined by Van Dyne and LePine (1998) as a "promotive behavior that emphasizes expression of constructive challenge intended to improve rather than merely criticize. Voice behavior involves the use of one's voice to make innovative suggestions for change and recommendations for modifications to standard procedures even when others disagree." (p. 109).

Many healthcare workers choose not to speak up about their concerns (Tangirala & Ramanujam, 2008). Employees reluctance to speak up were associated with fear of retaliation or punishment, lack of remedial action, and other organizational characteristics (Milliken, Morrison, & Hewlin, 2003). Failure to speak up leads to missed opportunities for organizational leaders to act upon and improve work systems. Further investigation of the frontline staff concerns can lead to resolution and preventive measures that can create safer, more efficient operational processes. Therefore, it is paramount for healthcare organizations to empirically test and measure mechanisms that promote speaking up behavior among registered nurses in an oncology care setting.

Purpose/Research Questions

The purpose of this study was to explore the relationship of the direct supervisor leadership style and the quality of leadership affiliation to the voice behavior of clinical nurses. The following research questions were posed:

1. What is the relationship between the perceived direct supervisor affiliation, the direct supervisor leadership style, and the voice behavior of clinical nurses working in an oncology care setting?

2. Does clinical nurses' perceived psychological safety (PS) mediate the relationship between the perceived direct supervisor leadership affiliation, perceived leadership style, and the clinical nurses' voice behavior?

Theoretical Framework

Leadership is one of the contextual factors that is identified to promote voice

behavior (Aryee, Budhwar, & Chen, 2002; Milliken et al., 2003). Two different

theoretical perspectives on leadership were used to provide a framework for this study:

The Full-Range Leadership Theory by Bass (1985) and the Leader-Member Exchange

(LMX) theory by Graen and Uhl-Bien (1995). Full range leadership theory incorporates

three leadership styles: transformational, transactional, and passive avoidant, which are

further described by different leadership behaviors. Bass posited that a leader can assume

different leadership style as the situation warrants. Passive/avoidant leadership is the least

effective style, described by Avolio and Bass (2004) as leaders who shun from clear

expectation and goal settings. Transformational leadership, on the other hand, is the most

effective style. Bass posits that transformational leaders supersede transactional leaders

who lead by social exchange. As leadership style moves from transformational to passive

avoidant, the behavior becomes less active and more passive. Literature has shown that

the more active the leader is in his/her dealings, the more effective they are as a leader

(Bass & Avolio, 1995; Schermerhorn, 1996).

The second theory, Leader-Member Exchange (LMX) theory by Graen and Uhl-

Bien (1995) focuses on the relationship between the leader and the subordinate. Based on

the dyadic social exchange, the quality of the working relationship between a leader and a

member is predictive of the outcome in different levels of analysis (Graen & Uhl-Bien,

1995).

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Voice behavior is a voluntary communication of work related ideas and concerns with the main intention of promoting positive change. These expressions of ideas and concerns are usually addressed by employees to their direct supervisor and can be perceived as a challenge to the status quo (Liu, Zhu, & Yang, 2010). For this reason voice behavior is noted to have an inherent risk (Detert & Burris, 2007; Milliken, Morrison, & Hewlin, 2003). Before an employee engages in a specific action, they mentally examine their work environment and evaluate possible consequences of that action. An immediate supervisor's behavior plays a significant role in the employee's decision to speak up or remain silent when they have potentially important information to share (Morrison, 2011; Detert & Burris, 2007). Psychological safety refers to one's perception of consequences for taking interpersonal risk in the work environment. An employee who perceives their direct supervisor to be supportive, open, respectful, and trustworthy will feel their work environment to be psychologically safe hence more likely to engage in speaking up behavior.

Clinical nurses who perceived their direct supervisor to be a transformational leader are encouraged and supported to evaluate their environment, identify problems, and offer possible solutions. The behavioral characteristics of a transformational leader, such as inspirational motivation and intellectual stimulation, encourage clinical staff to think outside the box. A well communicated goal and vision, instilled with autonomy and empowerment, is an open invitation for clinical nurses to speak up about their work related issues and concerns and offer constructive observation and suggestions.

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Consequently, clinical nurses will be inspired to speak up as they identify work related opportunities for improvements.

Leaders described as transactional are those who set and clarify their expectations and provide rewards to achieve these expectations. Clinical nurses may choose to speak up about their idea or suggestion only if they think that it will positively impact their supervisor's communicated goal. On the other hand, leaders perceived as passive in their dealings with their staff and frequently avoiding making decisions and giving guidance will have a negative impact on the staff's performance outcome. Clinical nurses may not communicate their issues and concerns because this can be seen a waste of time.

Clinical nurses who develop a high quality relationship with their direct supervisor feel more open to speaking up regarding their work related issues and concerns. A well-developed trust and respect between the staff and the direct supervisor allows the clinical nurse to voice even uncomfortable topics without intimidation. Nurses with high quality affiliation with their leaders may also feel a high sense of obligation to bring forth issues of quality and safety. Several studies have looked at the factors that affect voice behavior. However, there is limited empirical research in nursing linking leadership and voice behavior. The importance of fostering/promotive voice behavior in the clinical setting warrants further investigation. Do clinical nurses perceive psychological safety in their workplace? Does the clinical nurses' perception of psychological safety translate to a promotion of voice behavior? Does leadership style, defined by the leader's behavior, promote voice behavior among clinical nurses?

Methods

Sample and Design

This study used a non-experimental, cross-sectional research design to examine the relationship between the clinical nurses' perception of direct supervisor's leadership style, leadership affiliation, and clinical nurse's voice behavior. In compliance with the current rules and regulations of the Institutional Review Board, approval for the utilization and protection of human subjects was obtained from Texas Woman's University, protocol #: 17428. The target population was clinical nurses, currently working in oncology care settings in the greater Houston, Texas area. A convenience sampling technique was used. Clinical nurses who are members of Houston Chapter Oncology Nursing Society (HCONS) were invited to participate in the study. In order to reach eligible clinical nurses who were not HCONS members or had opted not to publish their email, a snowball sampling technique was employed. Participants were encouraged to forward the email invitation to a registered nurse colleague who might be interested in participating.

Variables and Instruments

Four instruments were used to collect data. The psychometric properties of the four tools for this sample are illustrated in Table 1.

Leadership style, defined by leadership behaviors, was measured using the Multifactor Leadership Questionnaire (MLQ). The MLQ is composed of a 36-items point

Likert scale. MLQ is closely linked to the full range leadership styles and has been examined on numerous occasions for validity using Confirmatory Factor Analysis (CFA), and reliability with reported Cronbach alpha of >.90 (Bass & Avolio, 2004). It produces a subscale score for three leadership styles (transformational, transactional and passive-avoidant) which have also reported acceptable alpha level ranging from .70 to .92.

Leadership affiliation was measured using the Leader-Member Exchange (LMX-7) tool. LMX-7, a 7-item Likert scale is based on Leader-Member Exchange theory that addresses the interpersonal relationship between a leader and a member. Predictive validity was asserted based on studies that used multiple domains: leader, follower, and the dyadic relationship; that generated predictable variation in the leadership outcome. Internal consistency for the instrument has been examined using Cronbach alphas which fall consistently in the .80-.90 range (Graen & Uhl-Bien, 1995).

Psychological safety, a 7-item, Likert scale tool, developed by Edmondson was used to measure psychological safety of the clinical nurses. Using independent observers, Edmondson examined discriminant validity of the tool. And Cronbach alphas have been reported to range from 0.78 (Carmeli, Brueller, & Dutton, 2009) to 0.82 (Edmondson, 1999).

Voice measure, a 6-item Likert scale tool, was used to measure the perceived voice behavior of the clinical nurses. The tool was used by Garon (2012) in a longitudinal field study to measure individual voice in different roles (self, peer, and supervisor) at

two time points separated by six months. Cronbach's alphas ranged from 88-.94. Factor analyses were employed to examine convergent and discriminant validity, and hierarchical regression analysis to assess for predictive validity (Van Dyne & LePine, 1998).

Data Analysis

A total of 154 nurses participated in the study. Four participants were dropped because they did not meet the inclusion criteria. Data from four other cases was excluded due to grossly incomplete surveys (>50%). Descriptive statistics were used to examine sample demographics. Hierarchical multiple regression techniques were used to answer the research questions.

Sample Description

Demographics of the sample are described in Table 2. Respondents from this study were mostly women. The mean age for all the respondents was 45 years with the standard deviation of 9.34. The majority of the participants were in the age range of 26-49, and the rest were in the age range of 50-64. A large portion of the study population identified them self as either Asian or White.

More than half of the study participants held a Baccalaureate degree in nursing. There was almost an even spread between inpatient and outpatient, with the majority of them working day shift. Nurse participants' tenure in their current position ranged from less than a year to 27 years, with the mean of 7.7 years and a standard deviation of 5.672.

The majority of participants were in the range of 5-10 years of tenure, with few participants on their 16-20 years of tenure. Participant's age, gender, work shift, and tenure in the current position were four demographic variables included as control variables.

Results

A hierarchical regression analysis was used to examine the two research questions. Preliminary analysis was conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity or homoscedasticity. Table 3 represents the inter correlation matrix of the study variables. The independent variables, transformational, transactional, passive-avoidant leadership, psychological safety and leadership affiliation all showed significant correlation with the dependent variable, voice behavior. The correlations among variables are in the expected direction. That is, perceived passive-avoidant leaders were significantly and negatively correlated to employee voice. Some correlations among the independent variables were also noted, with the highest bivariate covariate (0.79) between transformational leadership and leadership affiliation. Although correlations were present among the independent variables, none exceeded accepted variance inflation factor (VIF) or tolerance limits. The strong shared variance (79%) between transformational leadership and leadership affiliation scores does suggest that these two variables were measuring very similar concepts. **(Insert Table 3 about here)**

The regression analysis used three steps. First, respondents' age, gender, work shift, and tenure in current position were entered as control variables. Transformational,

transactional, passive-avoidant leadership scores and leadership affiliation were entered

on the second step. Psychological safety, PS, was then added in as a third step to

determine whether PS had any mediating effect on voice behavior. The results of this

model analysis are presented in Table 4.

The full model accounted for 26.4% (p<.0001) of the total variance in voice

behavior. Step 1, containing the control variables explained 1% of the variance (F=.339,

p =.851)   indicating that the selected socio-demographic variables had no effect on voice

behavior. Step 2, explained 24.4% of the variance (F= 5.664, p <.0001) and indicates that

leadership behaviors do affect voice behaviors. Leadership affiliation (beta = .319, p =

.014) was the only significantly contributing factor in this step of the regression model

while Transformational leadership (beta=.275, p=.061) made a strong showing.

After entry of the PS at step 3, the variance explained by the model as a whole

was 26.4%, (F= 5.258, p <.0001). However, the R square change was .010 (F=1.754,

p=.188) indicating that perceived psychological safety was not a significant mediator

between leadership behaviors and the voice behavior of the nurse respondents. In the

final model, only leadership affiliation, (beta = .262) and transformational leadership

(beta=.229) showed any strength of contribution. **(Insert Table 4   about here)**

Discussion

This study affirms that contextual leadership characteristics are a significant

contributing factor in the clinical nurses' decision to engage in speaking up regarding

their issues and concerns. Among the three leadership styles that were studied, transformational leaders, perceived as attentive, empathetic, stimulating, inspirational and respectful of their staff were more effective in promoting speaking up behavior among the clinical nurses. Clinical nurses, who perceived their direct supervisor to be engaging, trustworthy, and transformational, tended to be more open in communicating identified improvement opportunities than those who perceived their leaders to be more transactional and /or passive in their leadership skills. This is consistent with the findings reported by Kanste, Kääriäinen, and Kyngäs (2009) that transformational leaders improve nurses' willingness to exert effort while passive laissez-faire reduced positive leadership outcomes.

It was interesting to note that the perceived quality of the leadership affiliation revealed to have more significant impact on promoting voice behavior among clinical nurses. This indicates that the relationship between leaders and employees is an essential factor in the employees' decision to speak up or be silent. High quality affiliation between the direct supervisor and the staff creates a more conducive environment for open communication. Clinical nurses who perceived a high level of mutual trust, respect, and obligation with their direct supervisor were more comfortable in communicating areas of weakness in their work environment. This was an important finding, highlighting a distinction between the effect of leadership in two different perspectives, the leader-specific attributes and the dyadic relationship between the leader and the member.

One's decision to engage in speaking up behavior is based on their mental calculation of the possible consequence of the action. Leader–specific behaviors are subject to the staff's interpretation based on previous experiences. As Detert and Burris (2007) pointed out, employees can perceive their supervisors' assertiveness as being aggressive. Leaders who inspire, motivate, influence, and stimulate their staff can be perceived as being too pushy or too controlling. These perceptions can then lead to the feeling of indifference and detachment. Staff may then choose to be silent rather than share their ideas and concerns. This leads to a potential future research initiative, to explore and identify specific behavioral cues that can elicit high quality leader-member affiliation.

This study did not find evidence that psychological safety mediates the relationship between the contextual leadership variables and the voice behavior of clinical nurses. This may be attributed to the high correlations between psychological safety, leader affiliation and transformational leadership attributes.   In addition, there might be other behavioral cues that a leader might be unconsciously sending out to their subordinates (Morrison, 2011). Leaders might be openly asking staff for their ideas and suggestions but neglecting to provide feedback and close the communication loop. Clinical nurses will choose to be silent rather than take the risk of speaking up if they think that no action will be taken anyway. Exploration and identification of other behavioral cues empirically is likely to provide fruitful avenues for future research.

Practice Implications

The results of this study suggest that leadership behaviors, both discretionary and required, are vital elements in leadership training. It is important for supervisors to ensure that staff will speak up when confronted with information about potential problems or issues of significance to the organization. Direct supervisors relational behaviors are more likely to elicit speaking up behavior among clinical nurses than most of the task and change-oriented behaviors. Clinical nurses respond positively to leaders who offer support and interest in their professional as well as personal lives (Ribelin, 2003). Training that addresses the development of relational behavior would be advantageous to the organization. Cunliffe and Eriksen (2011) pointed out that a relational leader is not a theory or a model. It is a leader who practices creating open dialogue, accepting responsibility, creating an environment with shared meaning, understanding relational integrity, and becoming attuned and responsive to the present moment. Incorporating these elements in developing orientation programs and leadership curriculum will add additional dimension to any fundamental leadership training.

This study extends voice behavior research by exploring the leadership contextual characteristics as a contributing factor in the clinical nurses' decision to take risk and engage in voice behavior. This study highlighted the importance of the dyadic relationship between the leader and the staff; and not solely on the leader's attributes. At the same time, the study result emphasized the relational aspect of leadership which adds to the current leadership literature. Leadership is not merely about personal dominance or

interpersonal influence but rather a process by which members (leader and members) interact to increase work capacity of the work system that leads to overall organizational effectiveness (Uhl-Bien, 2006). Future research on the social and relational dynamics in the work place is warranted.

Conclusion

The increasing demand for high quality care necessitates that healthcare teams and organizational leaders make informed decisions, design effective strategic plans, and engage in continuous quality improvement initiatives. Nurses, to be a full partner in healthcare reform, need to be vigilant and willing to speak up about safety issues and opportunities for improvement in their daily practice. This study affirmed that perceived direct supervisor's leadership behavior and perceived leadership affiliation are contributing factors in the clinical nurse's decision to voice work-related ideas, issues and concerns.

For any reform initiative, knowledge of what to fix is the first step. Understanding the mechanism and the factors that influence frontline staff to bring up important improvement areas is a major-step forward. Leaders play an important role in employees' decisions to voice work related ideas and concerns. Creating an environment where ideas for improvement are respected and supported is a step towards higher quality care. Increasing the nurses' confidence to speak up regarding work-related ideas and concerns will advance nursing as a profession and full partner in improving healthcare outcomes.

Tables

Table 1

Psychometric properties for Key Study Variables

Variable	Alpha	# of items	N	Range	Mean	SD
VB	.926	6	139	.147	.677	4.067
PS	.821	7	139	.384	.404	4.897
LMX	.881	7	133	.605	25.34	5.493
PA	.863	8	135	.588	.441	6.514
TrS	.641	8	138	.778	.189	4.702
TrF	.949	20	128	.580	.486	14.790

Note: All variables used a 5-point likert scale. VB- Voice Behavior, PS- Psychological Safety, LMX – Leadership Affiliation, PA- Passive Avoidant, TrS Transactional leadership, TrF – Transformational leadership

Table 2

Frequencies for Demographics of Nurse Respondents   (N=146)

Variable	Frequency	Percentage
Gender		
Female	121	82.9
Male	25	17.1
Ethnicity		
Asian	59	40.4
White	54	37.0
Black	24	16.4
Hispanic	9	6.2
Age		
24 – 35	25	17.1
36 – 49	75	51.4
50 – 64	42	28.8
65+	4	2.7
Educational Level		
ADN	15	10.3
BSN	102	69.9
Masters	28	19.2
Masters+	1	0.7
Work Setting		
Inpatient	86	58.9
Outpatient	60	41.1
Work Status		
Full time	145	99.3
Part time	1	0.7
Work Shift		
Day Shift	111	76
Night Shift	22	15.1
Evening Shift	13	8.9
Tenure in current position		
<5 years	48	32.9
5 – 10	59	40.4
11 – 15	27	18.5
16 – 20	6	4.1
21 – 25	4	2.7
>25	2	1.4

Table 3

Descriptive Statistics and Correlations Among Key Study Variables

	M (SD)	VB	Age	Tenure	Gender	Shift	TrF	TrS	PA	LMX	PS
VB	4.02 (.67)	1									
Age	44.79 (9.34)	.006	1								
Tenure	7.70 (5.67)	-.005	.417*	1							
Gender	1.83 (.38)	-.085	.064	.050	1						
Shift	.76 (.43)	.038	-.028	-.119	.128	1					
TrF	2.65 (.73)	.459**	-.028	-.007	-.055	.063	1				
TrS	2.44 (.59)	.245*	-.033	-.076	-.099	-.080	.638**	1			
PA	1.14 (.81)	-.230*	.073	-.116	-.112	-.018	-.517**	-.273**	1		
LMX	24.83 (5.61)	.478**	.009	.105	-.090	.091	.789**	.464**	-.511**	1	
PS	3.62 (.69)	.407**	-.075	.141*	-.134	.026	.616**	.319**	-.402**	.664**	1

Note. N's range from 142 to 146 due to occasional missing data.
*p= .05; **p <.001

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Table 4

Hierarchical Regression Analysis Summary

	R^2	R^2Change	F change	β
Step 1	.010	.010	.339	
Age				.046
Tenure				-.069
Gender				-.029
W Shift				-.011
Step 2	.254	.244	10.891**	
TrF				.229
TrS				-.061
PA				.046
LMX				.262*
Step 3	.264	.010	1.754	
PS				.140

*Note: N= 142. *p =.05 **p =.0001*

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CHAPTER IV

SUMMARY OF THE STUDY

Patient safety and quality improvement in healthcare have been underscored since the Institute of Medicine (IOM) published its landmark report To Err is Human: Building a Safer Health System. The increasing demand for high quality care necessitates healthcare teams and organizational leaders to make informed decisions, design effective strategic plans, and to engage in continuous quality improvement initiatives. Clinical nurses, who act as front line staff, have the knowledge of what works and what does not, what can be eliminated and what can be done better. Work related issues, concerns, and ideas voiced by the employees are information that can be further analyzed, worked on, and corrected.

This study was undertaken to explore the influence of direct supervisor behavior in shaping the clinical nurses' decision to speak up when faced with work-related issues and concerns in their daily practice. Two leadership theories, Full Range leadership theory and Leader-Member Exchange theory, were used to guide the study. It was conceptualized that leadership style defined by specific leadership behaviors and the high quality of leadership affiliation has impact on clinical nurses' voice behavior. In addition, clinical nurses' perceived psychological safety mediates the relationship between leadership characteristics and the nurses' voice behavior.

Discussion of Findings

The study findings indicate that contextual leadership characteristics are a significant contributing factor in the clinical nurses' decision to engage in speaking up regarding their issues and concerns. Among the three leadership styles that were studied, transformational leaders, perceived as attentive, empathetic, stimulating, inspirational and respectful of their staff were more effective in promoting speaking up behavior among the clinical nurses. Clinical nurses, who perceived their direct supervisor to be engaging, trustworthy, and transformational, tended to be more open in communicating identified improvement opportunities than those who perceived their leaders to be more transactional and /or passive in their leadership skills. This is consistent with the findings reported by Kanste, Kääriäinen, and Kyngäs (2009) that transformational leaders improve nurses' willingness to exert effort while passive laissez-faire reduced positive leadership outcomes.

It was interesting to note that the perceived quality of the leadership affiliation revealed to have more significant impact on promoting voice behavior among clinical nurses. This indicates that the relationship between leaders and employees is an essential factor in the employees' decision to speak up or be silent. High quality affiliation between the direct supervisor and the staff creates a more conducive environment for open communication. Clinical nurses who perceived to have a high level of mutual trust, respect, and obligation with their direct supervisor were more comfortable in communicating areas of weakness in their work environment. This was an important

finding, highlighting a distinction between the effect of leadership in two different perspectives, the leader-specific attributes and the dyadic relationship between the leader and the member.

One's decision to engage in speaking up behavior is based on their mental calculation of the possible consequence of the action. Leader–specific behaviors are subject to the staff's interpretation based on previous experiences. As Detert and Burris (2007) pointed out, employees can perceive their supervisors' assertiveness as being aggressive. Leaders who inspire, motivate, influence, and stimulate their staff can be perceived as being too pushy or too controlling. These perceptions can then lead to the feeling of indifference and detachment. Staff may then choose to be silent rather than share their ideas and problems. This leads to a potential future research initiative, to explore and identify specific behavioral cues that can elicit high quality leader-member affiliation.

This study did not find evidence that psychological safety mediates the relationship between the contextual leadership variables and the voice behavior of clinical nurses. This may be attributed to the high correlations between psychological safety, leader affiliation and transformational leadership attributes. In addition, there might be other behavioral cues that a leader might be unconsciously sending out to their subordinates (Morrison, 2011). Leaders might be openly asking for their staff's ideas and suggestions but neglecting to provide feedback and close the communication loop. Clinical nurses will choose to be silent rather than take the risk of speaking up if they

think that no action will be taken anyway. Does the direct supervisor's relationship with the senior leaders a factor in the lack of follow up action? Does senior leaders' behavior affect the clinical nurses' perceived psychological safety? Empirical exploration and identification of other variables such as hierarchical structure is likely to provide fruitful avenues for future research.

Conclusion and Implications

Effective strategies to ensure safe and high quality care are needed in the ever changing healthcare terrain. Organizational leaders need to be equipped with information in order to design effective strategic plans and form sound decisions. Nurses, to be full partners in healthcare reform, need to be vigilant and willing to speak up about safety issues and opportunities for improvement in their daily practice. This study looked into the direct supervisor's contextual characteristics and attributes as a predictor of voice behavior of clinical nurses in the oncology care setting.

The outcomes of this study can be applied practically in different areas of nursing leadership development and for further advancement of leadership theories. First, the results of this study provide support for the assertion that transformational characteristics of the direct supervisor, such as inspirational motivation and intellectual stimulation, are an effective outcome measure of a leader. It is essential for leaders to generate staff awareness and acceptance of the organization's mission, while providing encouragement to go beyond their own self-interest for the good of the overall organization as a whole

(Bass, 1990). The results of this study support the recommendations of Bass and Avolio (1994) for leadership evaluation and training. Second, the data suggest that leadership behaviors, both discretionary and required, are vital elements in leadership training. It is important for supervisors to ensure that staff will speak up when confronted with information about potential problems or issues of significance to the organization. High quality affiliation with their direct supervisor is more likely to elicit speaking up behavior among clinical nurses than most of the task and change-oriented behaviors. Clinical nurses respond positively to leaders who offer support and interest in their professional as well as personal lives (Ribelin, 2003). Training that addresses the development of relational behavior would be advantageous to the organization. Cunliffe and Eriksen (2011) pointed out that a relational leader is not a theory or a model. It is a leader who practices creating open dialogue, accepting responsibility, creating an environment with shared meaning, understanding relational integrity, and becoming attuned and responsive to the present moment. Incorporating these elements in developing orientation programs and leadership curriculum will add an additional dimension to any fundamental leadership training. Third, this study extends voice behavior research by exploring leadership contextual characteristics as contributing factors in the clinical nurses' decision to take risks and engage in voice behaviors.

This study highlighted the importance of the dyadic relationship between leaders and staff; and not solely on the leader's attributes. At the same time, the study results emphasized the relational aspect of leadership which adds to the current leadership

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literature. Leadership is not merely about personal dominance or interpersonal influence but rather a process by which members (leader and staff) interact to increase capacity of the work system that leads to overall organizational effectiveness (Uhl-Bien, 2006).

Recommendation for Future Studies

For any reform initiative, knowledge of what to fix is the first step. Understanding the mechanisms and the factors that influence frontline staff to use their voices to bring up important improvement areas is a major-step forward. The results of this study affirm that leaders play an important role in employee decisions to voice work related ideas and concerns. To further expand the understanding on other factors that influence nurses' voice behavior, the following research questions could be considered:

1. Is there a difference between middle management attributes and senior management attributes in eliciting voice behavior among clinical nurses?
2. Do-other disciplines, physicians, and/or, administrative leaders, have an impact on the clinical nurse's decision to engage in speaking up behavior?
3. Does clinical nurse's voice behavior differ by nursing specialties?
4. Does ANCC Magnet designation affect clinical nurses' voice behavior?

Richer methodological approaches might provide increased insight in promoting nurses confidence to speak up about improvement opportunities they might encounter in their work environment. Future research options could be:

1. A qualitative approach to better understand the elements in the decision-making process of clinical nurses regarding speaking up work-related issues and concerns.

2. A longitudinal study to empirically establish the development and evolution of the leader-member dyadic relationship.

3. A revision of the study design to expand sources and data measures beyond self-report.

Creating an environment that promotes nurses' confidence to speak up regarding work-related ideas and concerns is increasingly important in today's fast changing healthcare terrain. The staff willingness to speak up and communicate improvement opportunities allows organizational leaders to further investigate and improve their work processes. Speaking up allows healthcare teams to patch the holes and correct the naturally occurring imperfections within the complex healthcare system. The confident voicing of ideas and concerns will advance nursing as a profession and as a full partner in creating high quality care and improved healthcare outcomes.

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APPENDIX A

Invitation Letter

Appendix A: Invitation letter

Dear Participant:

If you are a clinical nurse working in an oncology area, I would like to invite you to participate in this survey. Your participation in this study will aid in our understanding of how to promote speaking up behavior among clinical nurses. The survey should take approximately 20 minutes.

I know your time is valuable; as a token of appreciation for your participation, I would like to invite you to enter in a lottery drawing for a chance to win a **Kindle Fire HD** or **one of three $50 gift certificates**. To retain anonymity, after completing the survey, you will be redirected to a separate site to enter for the prize drawing.

> **Title of the study:** Correlational study on the perceived direct supervisor affiliation, direct supervisor leadership style, and the nurse's voice behavior
>
> Investigator: Gina Aranzamendez_____garanzamendez@twu.edu 713/563-8808
> Advisor: Robin Toms, PhD_____rtoms@twu.edu 713/794-2177

Your participation in this study is completely voluntary and you may withdraw from the study at any time. There is no foreseeable risk to you. However, there is a potential risk of loss of confidentiality in all email, downloading, and internet transactions. Confidentiality will be protected to the extent that is allowed by law. The research records and participant information will be kept confidential.

If you choose to participate, you will be asked to answer an online survey involving questions about yourself, your relationship with your direct supervisor, your supervisor's leadership style, and questions regarding your willingness to speak up about errors and concerns in nursing practice. No name or any identifying information will be asked in any portion of the survey. You are encouraged to complete the survey in a location away from public view.

If you have any questions about the research study you should ask the researchers. Refer to the contact information previously noted. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research at 713-794-2480 or via e-mail at IRB@twu.edu.

The results of the study will be provided to HCONS. The HCONS Leadership Committee will share the results of the study with the membership.

The link to the survey is provided: _____ and used this password: _____

Please feel free to forward this email invitation to a nurse colleague working in an oncology setting in the Greater Houston area who might be interested to participate in the study.

Thank you.
Gina Aranzamendez

APPENDIX B

Instruments

SURVEY I

Part 1: Demographic Form

The submission of your completed questionnaire constitutes your informed consent to act as a participant in this research.

Thank you very much for the support of this research.

Demographic form: Please indicate your appropriate response below.

Gender: ☐ Male ☐ Female

Age: _____ (fill in)

What ethnicity/race do you identify with: _____ (fill in)

Nursing Education: (highest level)
  ☐LVN   ☐ ADN   ☐ Baccalaureate   ☐Masters   ☐Masters +

Work setting: ☐Inpatient   ☐Outpatient/Clinic

Work status: (check one please)

  ☐ Full time   ☐Part Time   ☐PRN

Work Shift: (check one please)

  ☐ Day Shift   ☐ Night Shift   ☐Evening

Work Role:

  ☐Staff nurse   ☐Charge nurse   ☐Unit Manager   ☐ Department Director

Tenure in current position: _____ (fill in)

Part 2: Multifactor Leadership Questionnaire (36 items)

Instruction: Thirty six descriptive statements are listed on the following pages. Rate how frequently each statement fits your direct supervisor. Use the following rating scale.

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

The Person I Am Rating. . .

1. Provides me with assistance in exchange for my efforts 0 1 2 3 4
2. *Re-examines critical assumptions to question whether they are appropriate 0 1 2 3 4
3. Fails to interfere until problems become serious 0 1 2 3 4
4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards 0 1 2 3 4
5. Avoids getting involved when important issues arise 0 1 2 3 4
6. *Talks about his/her most important values and beliefs 0 1 2 3 4
7. Is absent when needed 0 1 2 3 4
8. *Seeks differing perspectives when solving problems 0 1 2 3 4
9. *Talks optimistically about the future 0 1 2 3 4
10. *Instills pride in me for being associated with him/her 0 1 2 3 4
11. Discusses in specific terms who is responsible for achieving performance targets 0 1 2 3 4
12. Waits for things to go wrong before taking action 0 1 2 3 4
13. *Talks enthusiastically about what needs to be accomplished 0 1 2 3 4
14. *Specifies the importance of having a strong sense of purpose 0 1 2 3 4
15. *Spends time teaching and coaching 0 1 2 3 4

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

16. Makes clear what one can expect to receive when performance goals are achieved............0 1 2 3 4

17. Shows that he/she is a firm believer in "If it ain't broke, don't fix it."...........................0 1 2 3 4

18. *Goes beyond self-interest for the good of the group 0 1 2 3 4

19. *Treats me as an individual rather than just as a member of a group 0 1 2 3 4

20. Demonstrates that problems must become chronic before taking action 0 1 2 3 4

21. *Acts in ways that builds my respect...0 1 2 3 4

22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures 0 1 2 3 4

23. *Considers the moral and ethical consequences of decisions...................................0 1 2 3 4

24. Keeps track of all mistakes 0 1 2 3 4

25. *Displays a sense of power and confidence..0 1 2 3 4

26. *Articulates a compelling vision of the future..0 1 2 3 4

27. Directs my attention toward failures to meet standards..0 1 2 3 4

28. Avoids making decisions 0 1 2 3 4

29. *Considers me as having different needs, abilities, and aspirations from others...........0 1 2 3 4

30. *Gets me to look at problems from many different angles..0 1 2 3 4

31. *Helps me to develop my strengths..0 1 2 3 4

32. *Suggests new ways of looking at how to complete assignments...............................0 1 2 3 4

33. Delays responding to urgent questions..0 1 2 3 4

34. *Emphasizes the importance of having a collective sense of mission 0 1 2 3 4

35. Expresses satisfaction when I meet expectations 0 1 2 3 4

36. *Expresses confidence that goals will be achieved..0 1 2 3 4

37. Is effective in meeting my job-related needs..0 1 2 3 4

38. Uses methods of leadership that are satisfying...0 1 2 3 4

39. Gets me to do more than I expected to do 0 1 2 3 4

40. Is effective in representing me to higher authority...0 1 2 3 4

41. Works with me in a satisfactory way 0 1 2 3 4

42. Heightens my desire to succeed..0 1 2 3 4

43. Is effective in meeting organizational requirements 0 1 2 3 4

44. Increases my willingness to try harder 0 1 2 3 4

45. Leads a group that is effective 0 1 2 3 4

Part 3: Leader-Member Exchange Questionnaire

Leader-Member Exchange Questionnaire. Describe your affliation with your direct supervisor by answering the following questions.

<table>
<tr><td colspan="5" align="center">LMX-7 Short Form LMX 7 Questionnaire</td></tr>
<tr><td colspan="5">1.   Do you know where you stand with your leader and do you usually know how satisfied your leader is with what you do?</td></tr>
<tr><td>☐Rarely
1</td><td>☐Occasionally
2</td><td>☐Sometimes
3</td><td>☐Fairly often
4</td><td>☐Very often
5</td></tr>
<tr><td colspan="5">2.   How well does your leader understand your job problems and needs?</td></tr>
<tr><td>☐Not a bit
1</td><td>☐A little
2</td><td>☐A fair amount
3</td><td>☐Quite a bit
4</td><td>☐A great deal
5</td></tr>
<tr><td colspan="5">3.   How well does your leader recognize your potential?</td></tr>
<tr><td>☐Not at all
1</td><td>☐A little
2</td><td>☐Moderately
3</td><td>☐Mostly
4</td><td>☐Fully
5</td></tr>
<tr><td colspan="5">4.   Regardless of how much formal authority he or she has built into his or her position, what are the chances that your leader would use his or her power to help you solve problems in your work?</td></tr>
<tr><td>☐None
1</td><td>☐Small
2</td><td>☐Moderate
3</td><td>☐High
4</td><td>☐Very high
5</td></tr>
<tr><td colspan="5">5.   Again, regardless of the amount of formal authority your leader has, what are the chances that he or she would "bail you out" at his or her expense?</td></tr>
<tr><td>☐None
1</td><td>☐Small
2</td><td>☐Moderate
3</td><td>☐High
4</td><td>☐Very high
5</td></tr>
<tr><td colspan="5">6.   I have enough confidence in my leader that I would defend and justify his or her decision if he or she were not present to do so.</td></tr>
<tr><td>☐Strongly disagree
1</td><td>☐Disagree
2</td><td>☐Neutral
3</td><td>☐Agree
4</td><td>☐Strongly agree
5</td></tr>
<tr><td colspan="5">7.   How would you characterize your working relationship with your leader?</td></tr>
<tr><td>☐Extremely ineffective
1</td><td>☐Worse than average
2</td><td>☐Average
3</td><td>☐Better than average
4</td><td>☐Extremely effective
5</td></tr>
</table>

Part V: Psychological Safety

Psychological Safety Questionnaire

1.   If you make a mistake on this team, it is often held against you.

☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 6

2.   Members of this team are able to bring up problems and tough issues.

☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5

3.   People on this team sometimes reject others for being different.

☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5

4.   It is safe to take a risk on this team.

☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5

5.   It is difficult to ask other members of this team for help.

☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5

6.   No one on this team would deliberately act in a way that undermines my efforts.

☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5

7.   Working with members of this team, my unique skills and talents are valued and utilized.

☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5

Part VI: Voice Measure Questionnaire

Voice Measure Questionnaire				
1. I develop and make recommendations concerning issues that affect this work group.				
☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5
2. I speak up and encourage others in this group to get involved in issues that affect the group.				
☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5
3. I communicate my opinions about work issues to others in this group even if my opinion is different and others in the group disagree with me.				
☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5
4. I keep well informed about issues where my opinion might be useful to this work group.				
☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5
5. I get involved in issues that affect the quality of work life here in this group.				
☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5
6. I speak up in this group with ideas for new projects or changes in procedures.				
☐Strongly disagree 1	☐Disagree 2	☐Neutral 3	☐Agree 4	☐Strongly agree 5

Conclusion

Thank you!

As a token of appreciation for your participation,

you are invited to enter in a lottery drawing for a chance to win

a **Kindle Fire HD** or **one of three $50 gift certificates**.

*Please click **CONTINUE** to enter in the prize drawing.*

OR

***EXIT** your web browser now*

if you DO NOT wish to enter your name into the drawing.

SURVEY II

Voice Behavior Survey Lottery Entry

Informed Consent

Risks: PsychData has a secure survey environment that protects your confidentiality. Only the investigators will have access to your name and mailing address which is encrypted during transmission and held in an isolated database on the PsychData server. Although web-based surveys in PsychData are secure, there is the potential risk of loss of confidentiality in all email, downloading, and internet transactions.

Statement of Anonymity: No connection can be made to your entry for Voice Behavior Survey Lottery Entry and your information in the Correlational study survey. The name and email address provided will be protected and only used for the purpose of randomly drawing of the prize winner. Once the awards are granted, the Voice Behavior Survey Lottery Entry will be deleted.

Informed Consent: Completion of this survey will be construed as informed consent.

<div align="center">

Enter to win
a **Kindle Fire HD** or **one of three $50 gift certificates**.

</div>

Drawing will be held on *date to be determined* at the HCONS meeting. Email notification will be sent to all the winners. Do you wish to enter your information for the prize drawing?

● YES, I want to continue ● NO, I want to exit

Question Logic
If **[YES, I want to continue]** is selected, then skip to question **[No logic applied]**
If **[NO, I want to exit]** is selected, then skip to question **[GO TO END OF SURVEY]**

NEXT page:

*   Enter your name here:

	First name
	Last name

*   Email address:

[   ]

LAST page:

Voice Behavior Survey Lottery Entry

Thank you!

APPENDIX C

Permission to Use the Tools

1. Permission to use MLQ:

Sample Item Letter

mind garden

www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her thesis or dissertation research;

Instrument:

Authors:

Copyright:

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

2. Request and Permission to use LMX 7:

🛈 Follow up. Start by Wednesday, June 26, 2013. Due by Wednesday, June 26, 2013.

From:	Lmxlotus@aol.com		Sent:	Wed 6/26/2013
To:	Aranzamendez, Gina			
Cc:	gjoang@aol.com			
Subject:	Re: permission to use LMX 7 measure for research			

Hi Gina,

Granted and good fortune.

George Graen

In a message dated 6/25/2013 2:23:12 P.M. Central Daylight Time, GAranzam@mdanderson.org writes:

> Good afternoon.
>
> My name is Gina Aranzamendez and I am an PhD student at Texas Woman's University in Houston. My dissertation topic is on the relationship of leader-member exchange and employee voice behavior of clinical nurses.
>
> I'm requesting permission to utilize the LMX 7 (Graen, G. B., & Uhl-Bien, M., 1995). for my study.
>
> Thank you for your assistance.

🛈 Follow up. Start by Tuesday, June 25, 2013. Due by Tuesday, June 25, 2013.
You forwarded this message on 6/25/2013 2:14 PM.

From:	Mary Uhl-Bien <mary.uhlbien@gmail.com>		Sent:	Tue 6/25/2013
To:	Aranzamendez, Gina			
Cc:				
Subject:	Re: permission to use LMX 7 measure for research			

Yes you may use it. It is a publicly available measure. Best with your research.

Mary

Sent from my iPhone

On Jun 25, 2013, at 11:15 AM, "Aranzamendez,Gina" <GAranzam@mdanderson.org> wrote:

> Good morning. My name is Gina Aranzamendez and I am an PhD student at Texas Woman's University in Houston. My dissertation topic is on the relationship of leader-member exchange and employee voice behavior of clinical nurses.
>
> I'm requesting permission to utilize the LMX 7 measure for my study. If you are not the appropriate contact, please provide me with the name of who I should contact?
>
> Any information would be wonderful. Thank you for your patient assistance.

3. Request and Permission to use Psychological Safety:

On Jun 25, 2013, at 2:48 PM, <garanzamendez@twu.edu> wrote:

Dr Edmondson,
My name id Gina Aranzamendez and I'm a PhD student at Texas Woman's University. My dissertation topic is on the relationship of perceived leadership affiliation and clinical nurse's voice behavior. Based on your studies, I believe that psychological safety is a mediating factor between these two variables.

I'm trying to ask permission to use your 7-item Psychological safety tool for my study.

I appreciate your assistance, thank you.

Gina Aranzamendez MS, RN-BC

From:	Edmondson, Amy <aedmondson@hbs.edu>	Sent: Wed 6/26
To:	<garanzamendez@twu.edu>	
Cc:		
Subject:	Re: permission to use Psychological Safety measure	
✉ Message	🔴 MeasuringTeamwork.pdf (226 KB) 🔳 PastedGraphic-1.tiff (12 KB)	

Of course! you are welcome to use the measure, and I will attach a forthcoming paper that may be of interest and of help. Please cite the source of whatever you use, and I hope you find something very interesting.
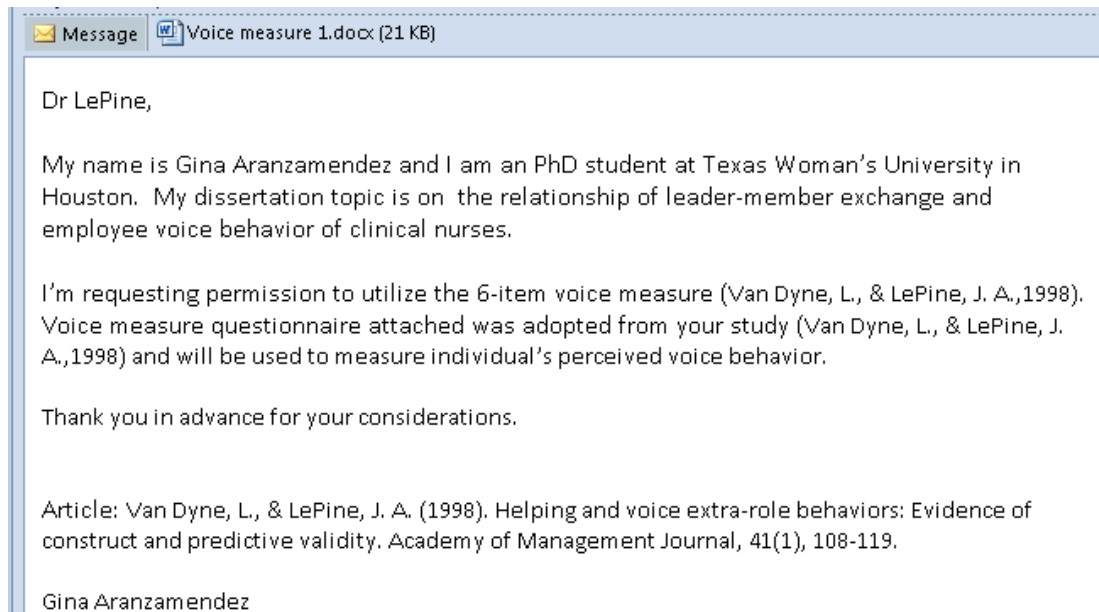
Amy C. Edmondson
Novartis Professor of Leadership and Management
HARVARD BUSINESS SCHOOL
Boston, MA 02163

Author of Teaming: How organizations learn, innovate and compete in the knowledge economy (Jossey-Bass, 2012)

Expertly assisted by Sheba Raza
email: sraza@hbs.edu
phone: 617-496-0792

Appendix C: Permissions to use the tools

4. Request and Permission to use Voice Measure:

📩 Message 📄 Voice measure 1.docx (21 KB)

Dr LePine,

My name is Gina Aranzamendez and I am an PhD student at Texas Woman's University in Houston. My dissertation topic is on the relationship of leader-member exchange and employee voice behavior of clinical nurses.

I'm requesting permission to utilize the 6-item voice measure (Van Dyne, L., & LePine, J. A.,1998). Voice measure questionnaire attached was adopted from your study (Van Dyne, L., & LePine, J. A.,1998) and will be used to measure individual's perceived voice behavior.

Thank you in advance for your considerations.

Article: Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. Academy of Management Journal, 41(1), 108-119.

Gina Aranzamendez

Hi, Yes you have permission to use the measure in your dissertation.
Best,
Jeff
==
Jeffery A LePine, Ph.D.
Professor and PetSmart Chair in Leadership
W.P. Carey School of Business
Arizona State University

Hello Gina,

Sorry for the delay in getting back to you. I was traveling.

You have my permission to use the scale

Best wishes with your research.

Linn

APPENDIX D

Recruitment script

Gina Aranzamendez is a registered nurse and a PhD student at Texas Woman's University. She is conducting a research study on factors that encourage oncology nurses to speak up about errors and concerns in nursing practice. The results of her study will help us better understand the connection between the nurses' willingness to speak up about errors and concerns in nursing practice, their perceived relationship with their direct supervisor, and their direct supervisor's leadership style.

The Leadership of the Houston Oncology Nurses Society, HCONS, have agreed to forward an invitation to participate in the study survey to the HCONS membership. Ms. Aranzamendez does not have access to membership email addresses or other contact information. Study participant information and responses to the survey will remain anonymous.

The link to the online survey will be included in the email invitation that will be sent to you. Accessing the survey link and the return of your completed questionnaire constitutes your informed consent to act as a participant in this research study.

If you choose to participate, you will answer an online survey that would approximately take 30 minutes to complete. The survey will involve answering questions about yourself, your relationship with your direct supervisor , your supervisor's leadership style, and questions regarding your willingness to speak up about errors and concerns in nursing practice. No name or any identifying information will be asked in any portion of the survey.

Your participation is voluntary. You may decide to withdraw from the study at any time.

The result of the study will be provided to HCONS. The HCONS leadership committee will share the results of the study with the membership.

Please feel free to forward the email invitation you will receive to a nurse colleague who works in an oncology setting in the greater Houston area who might be interested to participate in the study.

Thank you.

APPENDIX E

Permission to Recruit from HCONS

Houston Chapter Oncology Nursing Society
Tax ID: 52-1251939
PO Box 301150
Houston TX 77230

Dear Ms. Aranzamendez,

We received your request to conduct your research survey with our organization. After conferring with members of the board, it is with great pleasure that the Houston Chapter of the Oncology Nursing Society (HCONS) grants permission for you to conduct your study with our membership. As discussed via e-mail, we cannot release the mailing list to you due to privacy requirements but will gladly insure that your survey is e-mailed to all chapter membership.

We look forward to supporting you in this effort and wish you sincere best wishes in this endeavor.

Respectfully yours,

Rosalyn Jones-Waters, President
Houston Chapter Oncology Nursing Society

APPENDIX F

Recruitment Flyer

Recruitment Flyer

Voice behavior Survey

Take it: If you are a clinical nurse working in an oncology setting, you are invited to take the survey. Your participation in this study will aid in our understanding of how to promote speaking up behavior among clinical nurses. The survey should take approximately 20 minutes.

Enter to win: As an appreciation for your participation, you will be invited to enter in a lottery drawing for a chance to win a Kindle Fire HD or one of three $50 gift certificates. To retain anonymity, after completing the survey, you will be redirected to a separate site to enter for the prize drawing.

Please watch for the email invitation coming your way soon…..

APPENDIX G

Manuscript 1Reprint Permission

Dear Ms. Aranzamendez,

As co-author and without hesitation, I submit my permission to deposit the full text of the following article in your dissertation to meet the graduate requirements at Texas Woman's University, Houston, Texas:

Finding antecedents of psychological safety: A step toward quality improvement.

Best regards,

Debbie James, MSN, RN, CNS, CCRN

Clinical Assistant Professor
Department of Health Restoration and Care Systems Management University of Texas Health Science Center at San Antonio
7703 Floyd Curl Drive, Mail Code 7975
San Antonio, Texas 78229-3900
210-567-2228
jamesdl@uthscsa.edu<mailto:jamesdl@uthscsa.edu>

Dear Ms. Aranzamendez,

As co-author, you have my permission to deposit the full text of the following article in your dissertation to meet the graduate requirements at Texas Woman's University, Houston, Texas:

Finding antecedents of psychological safety: A step toward quality improvement.

Best regards,

Dr. Toms

Robin Toms, PhD, MN, RN, NEA-BC
Associate Professor, Track Manager Nursing Health Systems Management
Director-At- Large, Sigma Theta Tau International Nelda C. Stark College of Nursing Texas Woman's University
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