

# The Influence of Leader-Member Exchange and Structural Empowerment on Nurses Perception of Patient Safety

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#### Abstract

The lack of a supportive and inclusive work environment is a causative factor of nursing attrition and health related absences. This leads to increased risk towards nurses' safety, patients' safety and poorer patient outcomes. This quantitative research study will examine the impact of individual relationships between nurses and nurse managers using a crosssectional survey to examine the influence of structural empowerment has on the nurses' perception of patient safety. This research proposal includes a background of existing literature and study methodology.

### Study Purpose

The purpose of this study is to use the four dimensions of contribution, affect, loyalty, and professional respect that form the Leader-Member Exchange Theory (LMX) to examine the impact of nurse managers and access to support, opportunity, resources, and information, the four dimensions of structural empowerment (SE), have on nurses' perceptions of patient safety climate (PSC).

### Background

Key features of the relationship that are important in the development of trust and effective working relationships are identified through Leader-Member Exchange Theory (Lunenburg, 2010). LMX examines leadership techniques that enhance organizational commitment, environmental safety and patient safety when applied to performance outcomes (Higgins, 2015)

Increased job satisfaction and increased organizational commitment are associated with high levels of Structural Empowerment (Laschinger et al., 2009a). SE refers to the degree of access to environmental structures including opportunity, support, resources, and information that is provided to employees. Correlations have been identified between LMX and SE that have a positive influence on patient outcomes (Squires et al., 2010; Cai, & Zhou, 2009).

Work environment that support staff and increase the patient safety climate are fostered through nursing leaders (Armstrgon et al., 2009). PSC are found to affect patient outcomes, workplace injury, and staff's intention to leave the unit (Hotmann & Mark, 2006). Positive links have been identified between effective leadership styles and continuous quality improvement (McFadden et al., 2015), however no research as examined how nurses perceive a PSC while examining the link between individual leadership styles and SE.

#### Methods

Purposeful Sample Size (n=68)

This study uses a cross-sectional survey to obtain quantitative data. A total of 68 participants are required to detect a moderate effect size (0.15) when calculated using the G\*Power 3.1 with an alpha of 0.05, power level of 0.80 and two predictors (Faul et al., 2007). Loss through survey errors, and expected geographical movement of nurses from initial registration is taken into account with an expected low response rate (30%) that occurs with mailed surveys (Polit & Beck, 2008). Therefore 230 participants is sufficient for this study.

A random sample of 230 registered nurses working in an acute care teaching hospital within the province of Ontario will be selected from both rural and urban settings through the College of Nurses of Ontario registry. To meet inclusion criteria, participants must be currently employed either full-time or part-time for more than four months on their current unit, to avoid the inclusion of data from individuals who are new to the unit or may not be familiar with their current manager and working environment. All participants must be in a position with a superior in a leadership role who they are required to report to while being directly involved in patient care. Participants will be excluded if they are currently on leave or returned to work for less than four months.

### Major Outcomes

No direct benefit will be guaranteed to participants as a result of their participation in this study. However, this study will provide data that can identify the impact of Leader-Member Exchange of nurse managers and structural empowerment on nurses' perceptions of patient safety climate.

In addition, knowledge can be gathered that will begin to identify factors affecting patient outcomes in relation to the impact of managerial roles. As a result, this information can increase patient safety in the future and enhance the working environments of nurses.

#### Recommendations

Nursing leaders in front-line managerial positions will have the most impact from these findings through increasing their awareness of SE allowing them to develop a more positive working environment on their unit that may lead to increased patient safety and increased productivity. These findings can also assist managers in middle and upper management as a means of examining positive influences to LMX and developing strategies and training to be provided to front-line managers.

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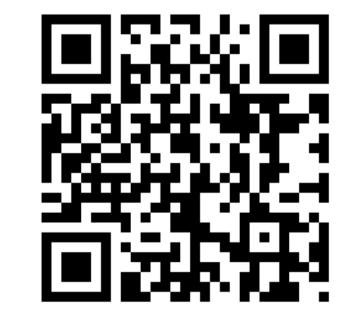


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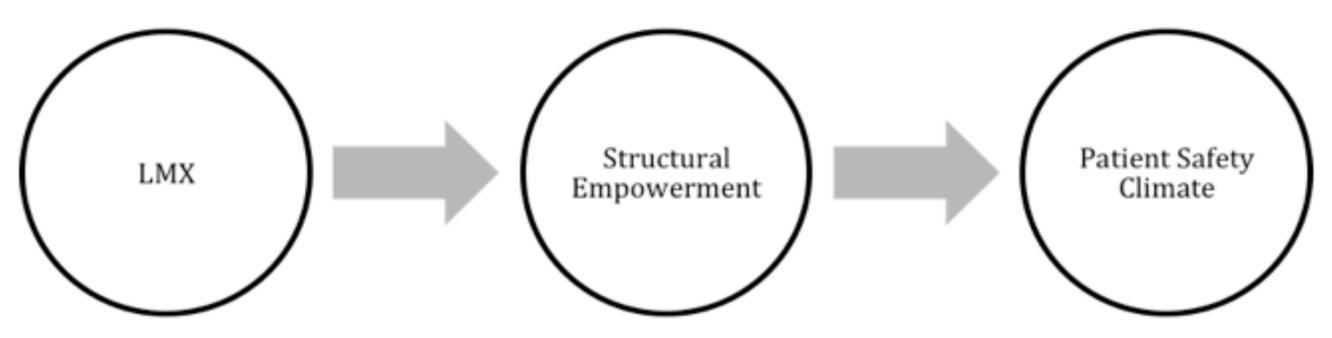


### Hypothesis

LMX of nurse managers and nurses' structural empowerment positively predict patient safety climate.

Leader-Member Exchange (LMX-MDM) (Liden & Maslyn , 1982)

Measure the quality of relationships between the nurse managers and nursing staff. *LMX-MDM* is a 12item scale that asks participants to identify the extent of which they agree or disagree with a series of questions. Questions are related to participant's perception of their current relationship with their manager on a seven-point Likert scale. The average of three items is taken where the higher score represents a higher quality relationship. The Cronbach's alpha reliability coefficient rang from 0.92-0.93 (Campbell & Swift, 2006; Wayne, Shore & Liden, 1997).



Patient Safety Climate Questionnaire (Thomas, Sexton, Neilands, Frankel & Helmreich, 2005; sexton et al., 2000)

Consists of a seven-item tool rated on a five-point Likert Scale with higher scores indicating of higher levels of perceived patient safety climate. Cronbach's alpha reliability coefficient range from 0.78 - 0.79 (Sexton et al., 2006b; 2006c; Sexton et al., 2000).

**Demographic Questionnaire** 

To gather information about participant's age, gender, employment status, length of employment in their current practice area, overall years of experience, and highest education obtained.

Conditions for Work Effectiveness Questionnaire-II (Laschinger, Finegan, Shamian & Wilk, 2001)

Measure SE through the four dimensions using a 12 item measure that follows a five-point Likert scale ranging from low (1 = none) to high (5 = a lot). Each of the four subscales (information, support, resources, opportunities) is assigned three-items. The mean of the three-items for each subscale is summed and averaged. A higher score indicates a higher perceived level of SE. The Cronbach's alpha reliability coefficient has ranged between 0.79-0.82 (Laschinger & Finegan, 2005).