Leadership Span of Control

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Span of Control Defined

- Span of control may be described as “the area of activity, number of functions or subordinates, etc., for which an individual or organization is responsible” (Oxford University Press, 2005).
During the industrial revolution, classical theorists debated the maximum number of staff whose work and interactions the manager could supervise, direct, coordinate, and control (Graicunas, 1937; Gulick, 1937; Urwick, 1937).

This approach to span of control, also known as ‘limited span’, delimits the maximum number of workers that one superior can oversee (Van Fleet & Bedeian, 1977).

Subsequently, span of control was theorized in relation to organizational structures, with wider and narrower spans deemed appropriate at lower and higher organizational levels respectively (Van Fleet & Bedian, 1977).

Greater diversity in the number of specialties supervised has been associated with narrower spans for lower level managers (Dewar & Simet, 1981; Meier & Bohle, 2003).
## Span of Control Theory

<table>
<thead>
<tr>
<th>Author</th>
<th>Setting</th>
<th>Span of Control</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gittell, 2001</td>
<td>Airlines</td>
<td>20</td>
<td>9-34</td>
</tr>
<tr>
<td>2. Alampay &amp; Beerh, 2001</td>
<td>Chemical</td>
<td>47</td>
<td>12-110</td>
</tr>
<tr>
<td>3. Meier &amp; Bohte, 2000</td>
<td>Schools</td>
<td>15</td>
<td>9-19</td>
</tr>
<tr>
<td>4. Cogliser &amp; Schriesheim, 2000</td>
<td>Libraries</td>
<td>10</td>
<td>2-26</td>
</tr>
<tr>
<td>5. Green et al., 1996</td>
<td>Libraries</td>
<td>6</td>
<td>1-19</td>
</tr>
<tr>
<td>6. Schriesheim et al., 2000</td>
<td>Banks</td>
<td>11</td>
<td>5-21</td>
</tr>
</tbody>
</table>

## Factors Influencing Span of Control

- **Narrow**
  - Variable
  - Complex
  - Interdependent

- **Broad**
  - Routine
  - Independent
  - Automated
  - Computerized feedback

- **Manager**
  - Novice
  - Basic qualification
  - Controlling leadership style
  - Experienced
  - Highly skilled
  - Able to delegate
  - Transactional or transformational

Nancy New, 2009
Factors Influencing Span of Control

Narrow
- Inexperience
- Poorly skilled
- Need for professional development

Broad
- Experienced
- Highly skilled
- Well-qualified

Unstable
- Complex structure
- Weak management support

Stable
- Flat structure
- Empowering administration
- Strong management supports

Workers
Organization

Nancy New, 2009

Application to Span of Control in Health Care – Ottawa Hospital, Ontario, Canada

Unit Focus
- Complexity
- Material Management

Program Focused
- Diversity
- Budget/statistical

Staff Focused
- Volume of staff
- Skill level/autonomy of staff
- Staffing stability
- Diversity of staff
Canadian Context

- The 1990’s saw downsizing and restructuring in many Ontario hospitals
- Many Nurse Manager positions were eliminated
- Delayering of management & supervisory positions in health care
- Increasingly heavy managerial workloads & greater numbers of direct reports

Canadian Context

- Associated with human resource problems
- Limited research on Health Care Leadership
- Prompted researchers at the Faculty of Nursing at U of T to explore which leadership style and span of control would optimize nurse, patient and organizational outcomes
The Research Objectives

- The project examined
  - The influence of the manager’s leadership style on outcomes:
    - Nurses’ job satisfaction
    - Patient satisfaction
    - Unit staff turnover
  - The influence of the manager’s span of control on outcomes
  - Which particular leadership style contributed to optimum outcomes under differing spans of control

Leadership Theory

- Defining Leadership
- Transformational Leadership Theory
  - Four leadership styles with varying effect on staff performance
    - Transformational
    - Transactional
    - Management-by-exception
    - Laissez faire
- Contingency Theory
Theoretical Framework

Leadership Style
- Transformational
- Transactional
- Management by exception
- Laissez faire

Span of Control

Performance
- Job satisfaction
- Turnover
- Patient satisfaction

Research Method/Measures

Method
- Design: Descriptive Correlation Design
- Setting: 7 Hospitals, 51 Units
- Sample: 41 Managers, 717 Nurses, 680 patients

Measures
- Multifactor Leadership Questionnaire
- McCloskey Mueller Satisfaction Scale
- Patient Judgments of Hospital Quality
- Nurse Demographic Questionnaire
- Manager Questionnaire
**Nurses’ and Managers’ Age and Experience**

<table>
<thead>
<tr>
<th></th>
<th>Nurses</th>
<th></th>
<th>Managers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Range</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>Age</td>
<td>40</td>
<td>20 - 64</td>
<td>45</td>
<td>30 - 59</td>
</tr>
<tr>
<td>Unit Experience</td>
<td>7</td>
<td>1 - 35</td>
<td>5</td>
<td>1 - 25</td>
</tr>
<tr>
<td>Hospital Experience</td>
<td>12</td>
<td>1 - 38</td>
<td>7</td>
<td>1 - 25</td>
</tr>
<tr>
<td>Total Experience</td>
<td>16</td>
<td>1 - 43</td>
<td>10</td>
<td>1 - 30</td>
</tr>
</tbody>
</table>

**Nurse Education Level**

- RPN: 11
- RN Diploma: 70
- RN Baccalaureate: 18
- Advanced Degree: 1

**Nurses Level of Education**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPN</td>
<td>11</td>
</tr>
<tr>
<td>RN Diploma</td>
<td>70</td>
</tr>
<tr>
<td>RN Baccalaureate</td>
<td>18</td>
</tr>
<tr>
<td>Advanced Degree</td>
<td>1</td>
</tr>
</tbody>
</table>
Manager Level of Education

Study Findings: Span of Control

<table>
<thead>
<tr>
<th>Study Variables</th>
<th>Number in Sample</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Span of control of 41 managers</td>
<td>41</td>
<td>81</td>
<td>36 - 258</td>
</tr>
<tr>
<td>Span of control of 40 managers* (*unit of 258 excluded)</td>
<td>40</td>
<td>77</td>
<td>36 - 151</td>
</tr>
<tr>
<td>Nurses' Job satisfaction</td>
<td>717</td>
<td>3.2</td>
<td>1.0 - 4.9</td>
</tr>
<tr>
<td>Patient Satisfaction</td>
<td>680</td>
<td>2.2</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Unit turnover rate</td>
<td>51</td>
<td>.18</td>
<td>.10 - .63</td>
</tr>
</tbody>
</table>
Nurses’ Job Satisfaction

Study Findings: Patient Satisfaction
Leadership Styles and Span of Control on Job Satisfaction

- Leaders who used a transformational or transactional leadership style had more satisfied staff.
- Leaders who used a management by exception leadership style had less satisfied staff.
- Span of Control moderated the relationship between leadership style and job satisfaction.
  - **Wide** spans of control **decreased** the positive effect of both transformational and transactional leadership styles, and
  - **Increased** the **negative** effect of both management by exception and laissez-faire leadership styles on staff satisfaction.

Leadership Styles and Span of Control on Patient Satisfaction

- **Patient satisfaction** was **higher** on units where managers used a transactional leadership style.
- **Patient satisfaction** was **lower** on units where managers had wide span of control.
- A **wide span** of control reduced the positive effect of transformational and transactional leadership styles on patient satisfaction.
Leadership Styles and Span of Control on Staff Turnover

- Turnover definition
- Leadership styles and Turnover
  - Units with managers who used a transformational style of leadership had lower levels of staff turnover
- Span of Control and Turnover
  - Units with managers who had a wide span of control had higher levels of staff turnover

Recommendations

- What do Health Care Organizations need to do?
  - Design & implement management training on effective leadership styles
  - Develop guidelines regarding the number of staff a manager may effectively support & lead
RELATIONSHIPS BETWEEN SPAN OF CONTROL, TIME ALLOCATION, AND LEADERSHIP OF FIRST-LINE MANAGERS AND NURSE AND TEAM OUTCOMES

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Span of Management Matrix

<table>
<thead>
<tr>
<th>Question</th>
<th>Purpose</th>
<th>Level of Analysis</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many supervisory positions are required relative to production workers?</td>
<td>Organizational resources allocated to supervision</td>
<td>Organization</td>
<td>Supervisory capability</td>
</tr>
<tr>
<td>For how many employees is the manager responsible?</td>
<td>Lines of accountability</td>
<td>Manager</td>
<td>Reporting structure</td>
</tr>
<tr>
<td>How much time does the manager spend supervising &amp; supporting employees?</td>
<td>Proxy for interaction between manager &amp; employee</td>
<td>Manager</td>
<td>Closeness of contact by manager</td>
</tr>
<tr>
<td>What is the breadth of the manager’s responsibilities &amp; roles?</td>
<td>Proxy for managerial capacity</td>
<td>Manager</td>
<td>Scope of managerial role</td>
</tr>
<tr>
<td>How much managerial support does the work group require?</td>
<td>Proxy for managerial resources allocated per work unit</td>
<td>Work group</td>
<td>Work group size</td>
</tr>
<tr>
<td>How much supervision &amp; support do employees receive from managers &amp; other roles?</td>
<td>Proxy for management support for employees</td>
<td>Employee</td>
<td>Employee support</td>
</tr>
</tbody>
</table>

Past Research

- Often over-emphasizes personal attributes of managers without considering organizational context & demands
- Relationships between managerial work & outcomes have yet to be examined in depth
- Managerial work is often described in terms of management functions or roles & is measured as ‘span of control’
- Multiple definitions of span are used

Problem Statement

- Span is typically measured as a ratio: 
  number of direct report employees 
  per manager
- A ratio assumes “standard” staff, managers & environments
- Comparisons of number of direct report staff per manager within & across organizations can misrepresent managerial capacity
Alternative Span Measures

- Span adjusted for time spent in human resource activity
- Span adjusted for time spent in staff contact
- Raw span (# of direct reports per manager)

What?  
what you do related to managing staff

Who?  
who you have contact with

How many?  
how many staff report to you

Human resource activity  
manager work logs

Staff contact  
manager work logs

Number of direct reports  
HR &/or Payroll

Main Goal

To what extent do alternative measures of span explain variation in teamwork & nurse satisfaction with manager’s supervision?

The three alternative span measures were:
- Raw span (# of direct reports per manager)
- Span adjusted for time spent in human resource activity
- Span adjusted for time spent in staff contact
Setting and Sample

- Setting
  - Acute Care Hospitals

- Sample
  - 31 first-line managers
  - 754 staff nurses

Summary of Span Measures

<table>
<thead>
<tr>
<th>Span measure</th>
<th>Metric</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw span</td>
<td>Number of direct reports</td>
<td>86.6</td>
<td>29 – 174</td>
</tr>
<tr>
<td>Time adjusted span for human resource activity</td>
<td>Minutes per direct report</td>
<td>2</td>
<td>.51 – 5.6</td>
</tr>
<tr>
<td>Time adjusted span for staff contact</td>
<td>Minutes per direct report</td>
<td>2.6</td>
<td>.78 – 6.5</td>
</tr>
</tbody>
</table>
Leadership Styles and Span of Control on Job Satisfaction

- Satisfaction with supervision positively associated with increased job satisfaction
- The effect of Raw span varied with managers’ hours of operation
- When managers were assigned compressed or mixed hours of operation, under low raw span, satisfaction was higher with higher leadership.
- Under high raw span, satisfaction was lower with higher leadership.
- Thus when managers were assigned compressed or mixed hours of operation, they could not overcome high raw spans to positively influence nurse satisfaction with manager’s supervision.

Leadership Styles and Span of Control on Teamwork

- Neither raw span nor time in staff contact explained between-manager variation in teamwork.
- Teamwork was positively associated with leadership, compressed and mixed hours of operation, and clinical support roles.
Leading Practices for Addressing Clinical Manager Span of Control in Ontario, Canada

Ontario Hospital Association

Perceived Impact of Span of Control on Dimensions of Organizational Performance

<table>
<thead>
<tr>
<th>Quality Indicator</th>
<th>% Managers Reporting Span of Control has Negative Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager accessibility to staff</td>
<td>35%</td>
</tr>
<tr>
<td>Communication effectiveness</td>
<td>31%</td>
</tr>
<tr>
<td>Staff engagement</td>
<td>23%</td>
</tr>
<tr>
<td>Staff satisfaction</td>
<td>21%</td>
</tr>
<tr>
<td>Staff absenteeism</td>
<td>19%</td>
</tr>
<tr>
<td>Staff retention</td>
<td>10%</td>
</tr>
<tr>
<td>Client/patient safety</td>
<td>8%</td>
</tr>
<tr>
<td>Client / patient satisfaction</td>
<td>7%</td>
</tr>
<tr>
<td>Staff injury rates</td>
<td>3%</td>
</tr>
</tbody>
</table>

Total n = 524
Qualitative Comments

“The span of control is too large for me – I have over 90 staff to do performance appraisals on with no Program Manager at all; the constant interviews of new staff, and dealing with daily “fires” prevent any strategy thinking”.

In a small organization… there are not layers of support (administrative assistant, consistent supervisors). You do the work of a supervisor, manager, and director.”
Qualitative Comments

“When we cover for other managers that have multiple departments the day is usually spent putting out fires and trying to cover holes in schedules. It is difficult to do my desk work on many days”.

Qualitative Comments

“I feel that my job has drained the life out of me. As a front line manager I find that in order to meet the needs of the organization, I have to let my staff down and vice versa”.
“A large span of control can allow for standardization of best practices … allows for improved efficiencies and a broader perspective for leaders”.

“But there needs to be appropriate amount of clinical supervision and support at point of care”.

### Strategies Implemented to Alleviate Impact of Wide Span of Control

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager access &amp; visibility</td>
<td>More face-to-face communication</td>
</tr>
<tr>
<td>Performance appraisal</td>
<td>Reduce span of control</td>
</tr>
<tr>
<td>Manager/ administrative walkabouts</td>
<td>Administrative supports (e.g., nurse educator, charge nurse)</td>
</tr>
<tr>
<td>Staff involvement in decision making</td>
<td>Conducting staff satisfaction surveys</td>
</tr>
<tr>
<td>Appreciation and recognition</td>
<td>Appreciation &amp; recognition</td>
</tr>
<tr>
<td>Manager flexibility</td>
<td>Increased education funding and opportunities</td>
</tr>
<tr>
<td>Staff forums/ town halls</td>
<td>Regular unit meetings</td>
</tr>
<tr>
<td>Use of email/ other IT tools for</td>
<td></td>
</tr>
<tr>
<td>communication</td>
<td></td>
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</tbody>
</table>

Total n = 524
Danish Context

- Span of control on Danish wards (50-70) is slightly lower than that observed in Ontario hospitals (average 81-87); both are increasing.
- Challenges for nurse managers are similar – communication and contact with staff, work strategically.

Recommendations for Managing Wide Span of Control

- Effective meeting and feedback culture
- Organize staff members in smaller teams
- Focus on increasing opportunities for communication
- Develop clinical infrastructure support
- Develop administrative operations infrastructure support for responsibilities that can be delegated
Recommendations

- Develop nursing leadership at the point
  - Clinical experts
  - Program coordinators for specific populations
  - Clinical nurse supervisor role
- Administrative infrastructure support
  - Administrative assistant for payroll, secretarial, personnel paperwork
  - Supervision of non-clinical staff such as unit clerks

Recommendations

- Unit bases shared governance
  - Staff engaged in decision making role
- Reduce span of control
- When managers oversee multiple groups or units with the hospital, there should be similarities between the groups or units (Layman, 2007)
References