

Symposium:  
Using Nurse Staffing and Scheduling “Big Data” to  
Improve the Quality of Nursing Worklife

by

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## Learning Objectives

- Report the quality of nursing worklife (QNWL) in hospitals in select countries.
- Describe how human resources department can collaborate with nurse leaders to select evidence-based strategies to improve nursing worklife.
- Explain how labor optimization can be used for nurse staffing to improve the QNWL.

# Overview and Agenda

- Define Quality of Nursing Worklife (QNWL)
  - History, Theory and Conceptual Framework
  - Depict countries using the survey
  - Survey results from select countries
- Selecting Evidence-based Human Resources (HR) Strategies
  - Social sub-system
  - Identifying employee needs
  - Collaborating with nursing leadership
- Using Labor Optimization for Nurse Staffing
  - Technical sub-system
  - Logistics science and mathematical modeling
  - Optimize and implement new staffing model
- Questions and Conclusion

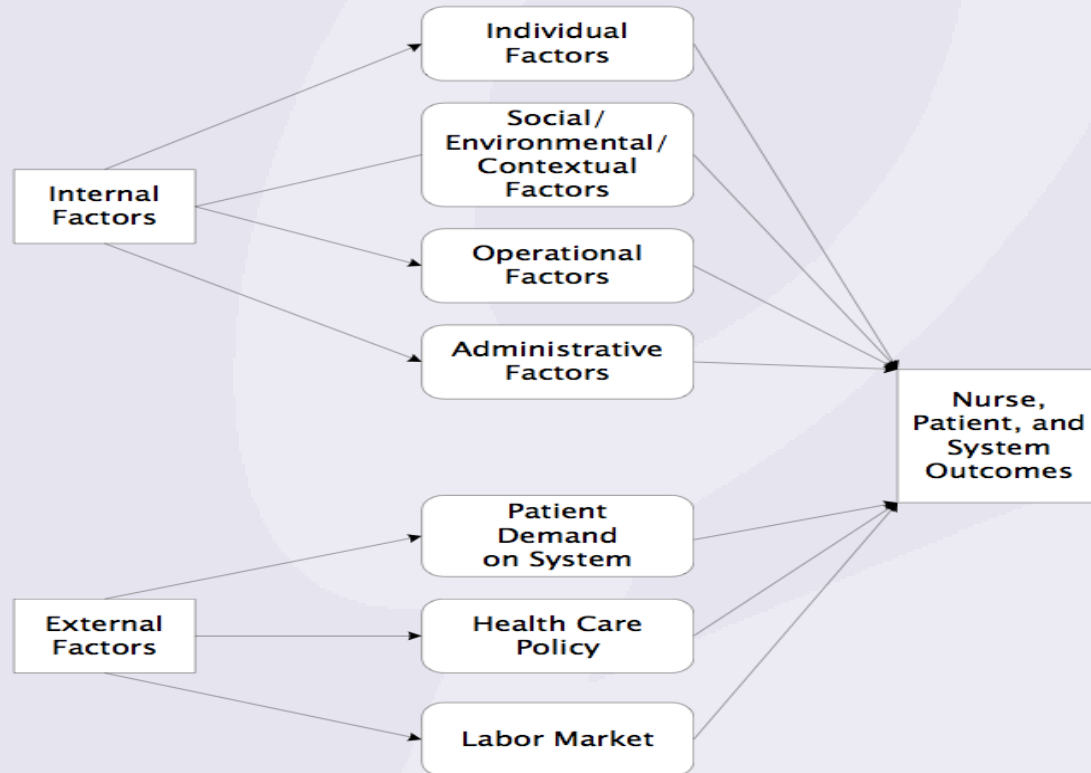
# Why Quality of Nursing Worklife

- Job satisfaction is an unsatisfactory construct to assess either jobs themselves or employees' feelings about work. (Taylor & Felton, 1993)
- As much as 30% of job sat is a function of personality. (Arvey, Bouchard, Segal, & Abraham, 1989; Judge, 1993)
- Consistently demonstrated high satisfaction does not impact employee performance or patient outcomes. (Goodell & Coeling, 1994; Iaffaldano & Muchinsky, 1985; Nadler & Lawler, 1983; Organ, 1988; Taylor & Felton, 1993)

## Brief History of QNWL

- Socio-technical Systems Theory (STS)
- Early 1990s Canada discusses nurses' work concerns
- In 2000, Quality of Nursing Worklife Survey©
- Diagnostic survey to improve QNWL and meet business goals
- Worklife improvements collaborative approach between management and staff

# Conceptual Framework

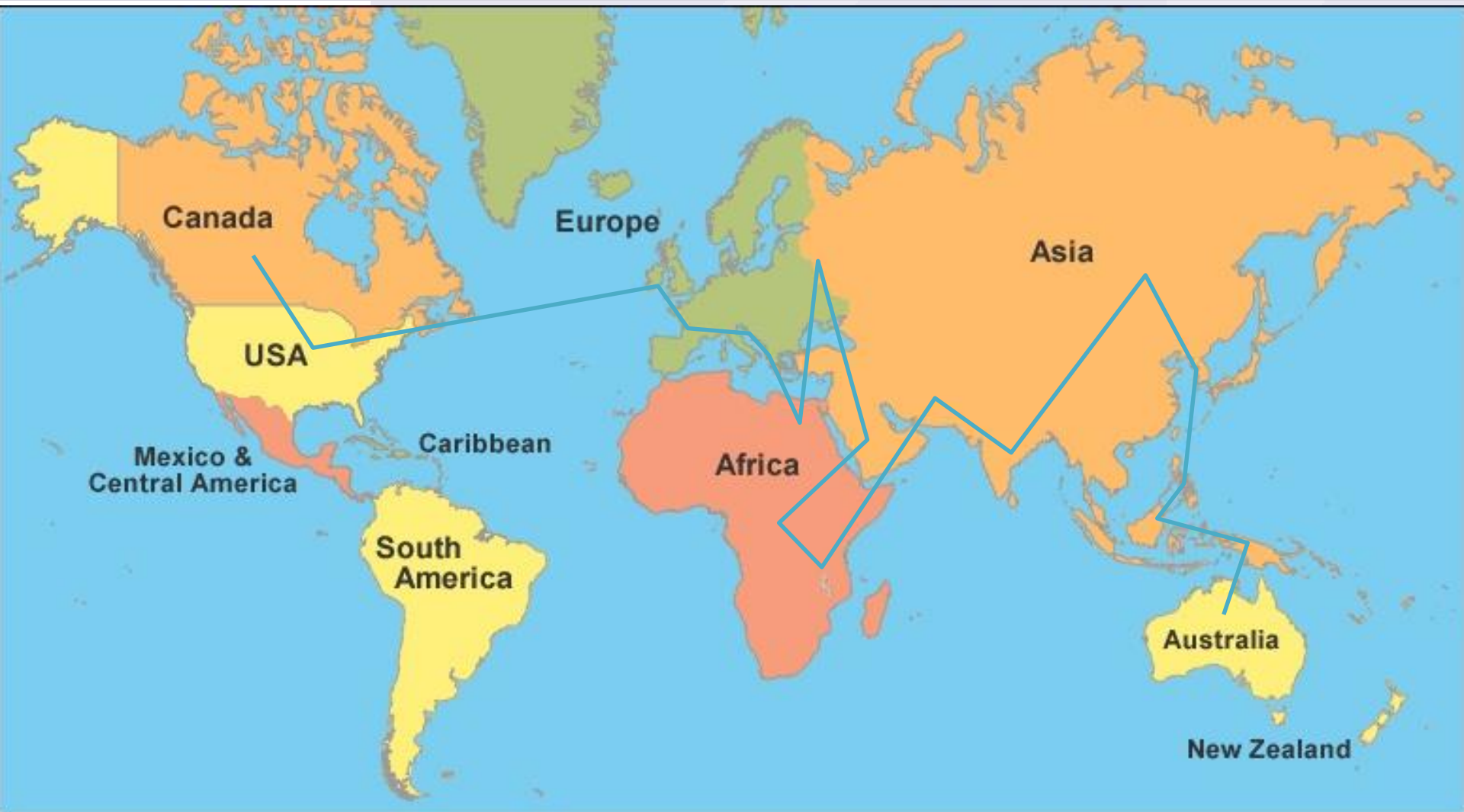


Note. From "Quality of Nursing Worklife Issues--A Unifying Framework," by L.O'Brien-Pallas and A. Baumann, 1992, *Canadian Journal of Nursing Administration*, 5(2), 13. Copyright 1992 by Canadian Journal of Nursing Administration. Reprinted with permission.

## Sub-scales

- **Worklife/Homelife**
  - Interface between the life experiences of nurses in their place of work and in the home.
- **Work Design**
  - Composition of nursing work and describes the actual work nurses do.
- **Work Context**
  - Practice settings, explores the impact of work environment on both nurse and patient systems.
- **Work World**
  - The effects of broad societal influences and changes on the practice of nursing.

# THE BROOKS GROUP





# Results

- Saudi Arabia
- China
- Iran
- Jordan
- Malaysia
- Taiwan
- Thailand

# Selecting Evidence-based Strategies to Improve QNWL

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# Socio-technical Systems Theory (STS)

- Two Sub-systems
  - Technical (Dr. Fitzpatrick)
  - Social
- Comprised of the people & relationships
- Reasons why employees choose organization
  - Attitudes toward
  - Expectations of it
  - Supervisory-subordinate relationships
  - Skill levels of employees
  - Nature of the subgroups

## STS Theory: Social Sub-system

- Social sub-system has to meet a number of interrelated organizational challenges
  - Attain organization goals
  - Integrate the activities
  - Recruit, socialize and retain employees
- QNWL Survey can “diagnose” areas for improvement

# Identifying Employee Needs

- Work World
  - Labor Supply & Demand
  - Competitive Compensation, Total Comp
- Worklife/Homelife
  - Work-life balance
- Work Context
  - Learning & Development
  - Improving Communication
- Work Design

# HR Collaboration with Nursing Leaders

- Work World
  - Competitive Compensation
  - Total Compensation
  - Workplace safety
- Worklife/Homelife
  - Day care
  - Redesign of PTO program
  - Health & wellness programs

# HR Collaboration with Nursing Leaders

- Work Context
  - Improving communication
  - Conflict resolution
  - Inter-professional team “issues”
  - Professional development
- Work Design
  - Technical sub-system (Dr. Fitzpatrick)

# Conclusion

- Questions

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