THE THEORY OF PSYCHOLOGICAL OWNERSHIP: MEASUREMENT AND USES IN NURSE WORK ENVIRONMENT RESEARCH

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LEARNING OBJECTIVES

• Discuss gaps in the nursing work environment research literature
• Describe key constructs in the Theory of Psychological Ownership
• Discuss the use of an expanded measure of psychological ownership in a nursing population
• Discuss how psychological ownership could be employed in nursing work environment research as a mechanism to improved and patient outcomes
NURSE WORK ENVIRONMENT RESEARCH

• Magnet work
• Magnet measures
  • NWI (Kramer & Hafner, 1989)   NWI-R (Aiken & Patrician, 1994)
  • PES-NWI (Lake, 2002)
  • EOM I & II (Kramer & Schmalenberg, 2004/5)
• 14 Magnet characteristics/ 5 components
  • Transformational Leadership
  • Structural Empowerment
  • Exemplary Professional Practice
  • New Knowledge, Innovation, and Improvements
  • Empirical Quality Results
• IOM Keeping Patients Safe: Transforming the Work Environment of Nurses

American Nurses’ Credentialing Center [ANCC], 2017; Institute of Medicine [IOM], 2004
OUTCOMES ARE INCONSISTENT

- Relationship between working conditions and patient outcomes inconclusive (Bae, 2011)
- Job satisfaction is related to working conditions, but further research is needed (Lu, et al, 2011)
- It is not possible to conclude Magnet® status has effects on nurse and patient outcomes (Dariel & Regnaux, 2015)
RECOMMENDATIONS FOR FURTHER RESEARCH

- Contextual and **multivariate influences** are needed (Bae, 2011)
- The absence of a **robust causal model** is undermining the research (Lu, et al., 2011)
- Need **more robust designs** that measure the impact of Magnet® status on outcomes (Dariel & Regnaux, 2015)
- Identify **causal mechanisms** and interventions to bring about change (Norman, 2013)
- Need to provide a better understanding of the **mechanisms** that link the nursing environment to patient outcomes (Kazanjian, et al., 2005)
STUDY AIMS

• Investigate measurement of Psychological Ownership in a nursing population

• Explore relationship between Psychological Ownership and Nursing Practice Environment
Psychological Ownership is the state of mind that leads individuals to feel a target of ownership is “theirs”
ROOTS (WHY) FOR OWNERSHIP DEVELOPMENT

- Efficacy and effectance
- Self-identity
- Having a place/Home

Pierce & Jusilla, 2011
ROUTES (HOW) TO OWNERSHIP DEVELOPMENT

• Control
• Intimate knowledge
• Investment of self

Organizations provide opportunities for development of ownership through how work is structured

Pierce & Jusilla, 2011
OUTCOMES OF PSYCHOLOGICAL OWNERSHIP

Control
Intimate
Knowledge
Investment
Of Self

Psychological Ownership

Motivation
Change
Acceptance
Personal Sacrifice
In-Role Performance
EXPERIENCED RESPONSIBILITY
Job Satisfaction
Commitment
Self-Esteem
Extra-Roles Performance
EXPERIENCED RESPONSIBILITY FOR WORK OUTCOMES-

“The degree to which the individual feels personally accountable and responsible for the results of the work he or she does”

(Hackman & Oldham, 1976, p 256)
Nurse Work Environment Factors → Psychological Ownership → Improved Nurse & Patient Outcomes
- Control
- Intimate Knowledge
- Investment of Self
STUDY DESIGN

- Cross-sectional survey design
- Electronic survey of Florida APRNs working in hospitals
- Inclusion criteria: working in an APRN role in a Florida Hospital
  - Nurse Practitioners, Nurse Anesthetists, Nurse Midwives, Clinical Nurse Specialists
- Exclusion criteria: not working in an APRN role, not working in a hospital setting, not working in Florida
- 18,411 survey were sent/ 542 usable surveys returned
  - unknown how many APRNs work in hospitals
- Approved through University of Miami IRB
<table>
<thead>
<tr>
<th>APRN Characteristics</th>
<th>*Florida</th>
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<tbody>
<tr>
<td><strong>Age (N=486)</strong></td>
<td>M=48.1 (SD 10.86) (range 26-72)</td>
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<tr>
<td><strong>Gender (N=542)</strong></td>
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</tr>
<tr>
<td>Male</td>
<td>98 (18%)</td>
</tr>
<tr>
<td>Female</td>
<td>444 (82%)</td>
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<tr>
<td><strong>Race (N=542)</strong></td>
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<tr>
<td>Hispanic</td>
<td>55 (10%)</td>
</tr>
<tr>
<td>Caucasian</td>
<td>467 (86%)</td>
</tr>
<tr>
<td>African American</td>
<td>28 (5%)</td>
</tr>
<tr>
<td>Asian</td>
<td>16 (3%)</td>
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<tr>
<td><strong>Type (N=537)</strong></td>
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<tr>
<td>CRNA</td>
<td>161 (30%)</td>
</tr>
<tr>
<td>NP</td>
<td>332 (61%)</td>
</tr>
<tr>
<td>CNM</td>
<td>35 (7%)</td>
</tr>
<tr>
<td>CNS</td>
<td>4 (&lt;1%)</td>
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<tr>
<td><strong>Highest Degree (in nursing) (N=536)</strong></td>
<td></td>
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<tr>
<td>Bachelors</td>
<td>19 (4%)</td>
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<tr>
<td>Masters</td>
<td>432 (80%)</td>
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<tr>
<td>DNP</td>
<td>69 (13%)</td>
</tr>
<tr>
<td>PhD</td>
<td>16 (3%)</td>
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<tr>
<td><strong>Years as: (N=542)</strong></td>
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<tr>
<td>RN (prior to APRN) (N=539)</td>
<td>M=10.22 (SD 8.01) (range 0-46)</td>
</tr>
<tr>
<td>APRN (N=539)</td>
<td>M=12.87 (SD 9.90) (range 0-46)</td>
</tr>
<tr>
<td>Current Position</td>
<td>M= 6.42 (SD 6.42) (range 0-35)</td>
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MEASURE/ANALYSIS : EXPANDED PSYCHOLOGICAL OWNERSHIP QUESTIONNAIRE

• 21 items, 4 subscales: Control, Intimate Knowledge, Investment of Self, Psychological Ownership
• 4-point Likert-type scale (strongly agree, agree, disagree, strongly disagree)
• Analysis Plan
  • Descriptive Statistics
  • Reliability: Cronbach’s alpha
  • Validity: Confirmatory Factor Analysis

(Brown, Pierce, & Crossley, 2013)
RESULTS

• Missing data 6-8% (maximum likelihood)
• Good Subscale Reliability
  • Control $\alpha = .88$
  • Intimate Knowledge $\alpha = .77$
  • Investment of Self $\alpha = .84$
  • Psychological Ownership $\alpha = .91$
• Good Construct Validity
  • Model fit
    • $x^2 (393) = 403.19$, $p = .351$
    • RMSEA = .007
    • CFI = .998
  • Factors loadings
    • Control $.69-.89$
    • Intimate Knowledge $.65-.88$
    • Investment of Self $.79-.93$
    • Psychological Ownership $.83-.92$
RESULTS

Psychological Ownership
Percentage of Strongly Agree/Agree Responses

- Intimate Knowledge: 94%
- Investment Of Self: 93%
- Psychological Ownership: 84%

Control: 59%

FAVORABLE
CONCLUSIONS

• The Expanded Psychological Ownership Questionnaire performed well in an APRN population
• Favorable responses were low in the Control subscale compared to other subscales
• APRNs perceive a high degree of Psychological Ownership for their jobs, but may derive it through Intimate Knowledge and Investment of Self
• Limitations
  • Generalizability outside of Florida APRNs
  • Oversampling of CRNAs and CNMs may bias results
  • Measurement issue: Likert type scale
• Psychological Ownership has applications for the nursing work environment research by offering a possible mechanism through which work environment factors influence nurse and patient outcomes.....

• Does Psychological Ownership result in positive outcomes in nursing, as found in other professions

• Does manipulation of work environment factors that impact nursing Psychological Ownership improve patient outcomes
REFERENCES


