



EMORY

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WOODRUFF  
SCHOOL OF  
NURSING

# **Factors Impacting Staff Nurse Care Coordination**

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Dissertation Study

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# Acknowledgements

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# Introduction

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- Multi Level , Exploratory
- Concerned with
  - Chronic illness care in the hospital setting
  - The nurse's practice environment
  - Critical work of staff nurses

Practice Environment  Care Coordination

# Objectives

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- Described identified relationships between the practice environment and staff nurse care coordination
- Identify relevance of nursing process measures to improving patient outcomes

# Background

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## Chronic illness care

- Financial impact (Mensah, 2008)
- More adverse outcomes (MedPac 2007)
- Benefits from care coordination (IHI, 2004, Naylor 2005)
- Chronically ill 10 X more likely hospitalized (Anderson, 2007)

# Background

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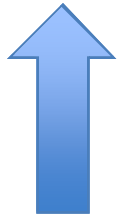


## **Focus on practice environment**

- Safe care implications
- Linked to nurse satisfaction, retention
- Professional Practice Environment

# Background

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## Need for Care Coordination

- Decreases costs
- Results in better quality (IHI, 2004)
- Performed by staff nurses (IOM, 2001)
- Measurable, as of recently (Lamb et al. 2008)

# Significance

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- Contributes knowledge of chronic illness care for hospitalized patients
- Empirical study of relationship between structure and process in context of staff nurse practice
- Extends knowledge of staff nurse role in care coordination

# Study Aim

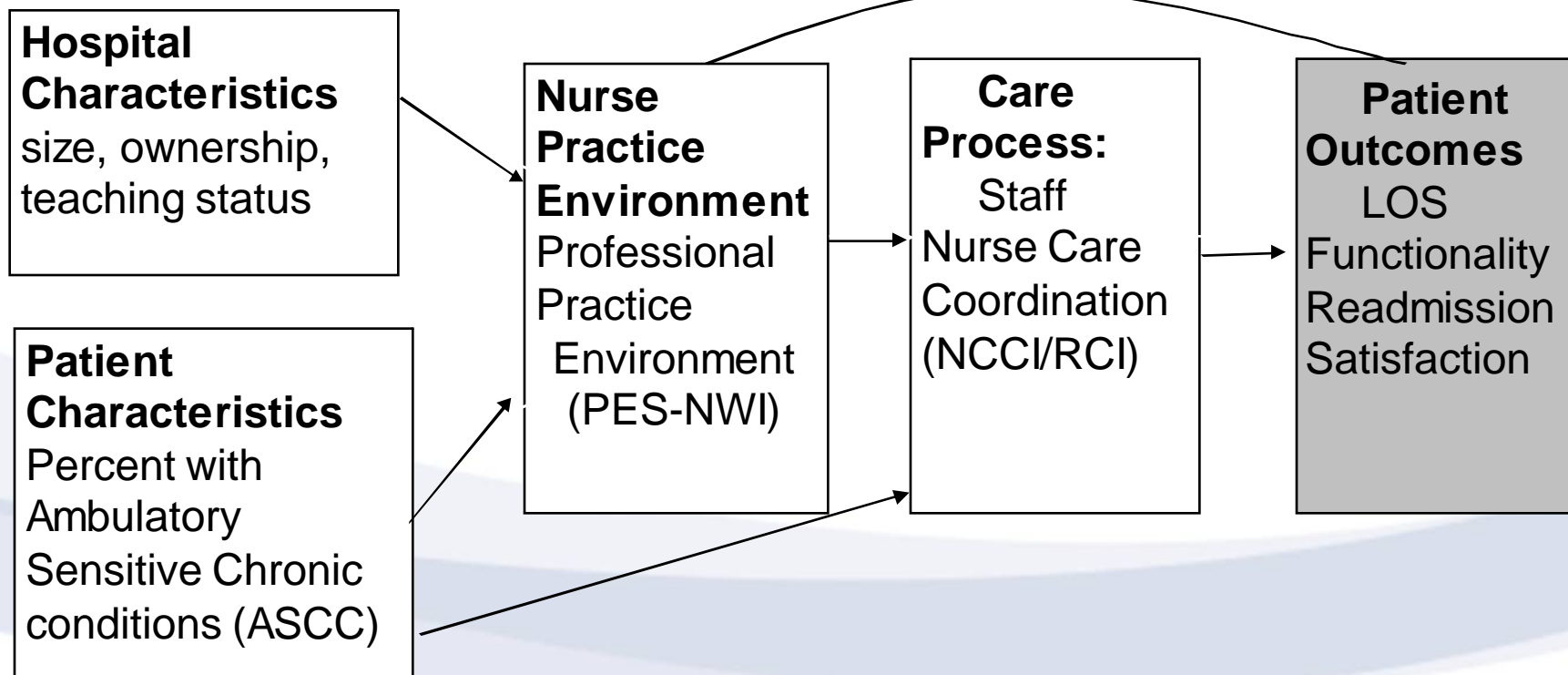
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To examine the relationship between characteristics comprising the practice environment and the process of staff nurse care coordination on medical-surgical units in the hospital.

# Study Framework

Based on Donabedian's SPO

Antecedents:      Structure:      Process:      Outcome:



# Study Definitions

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- Hospital Characteristics
- Ambulatory Care Sensitive Conditions
  - If managed well does not require hospital stay
- Professional Practice Environment
  - Supports professional work of nurses
  - Characterized by autonomy, control over practice, positive nurse / physician relations, high RN staffing, access to resources

# Study Definitions

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- Staff nurse care coordination
  - “actions initiated by nurses with patients, families, and/or members of their health care team to manage and correct the sequence, timing, and/or effectiveness of patient care from hospital admission to hospital discharge” (Iamb et al. 2008)
- 6 domains
  - Assisting, Checking, Organizing, Mobilizing, Exchanging and Backfilling

# Research Question 1A:

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What is the relationship between the perceived professional practice environment and nurse care coordination as reported by staff nurses on acute care medical-surgical units?

# Research Question 1B:

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What is the relationship between the percent of patients with ambulatory sensitive chronic illness to the nurses' practice environment and to the process of staff nurse care coordination on acute care medical surgical units?

# Research Question 1C:

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What is the relationship between hospital characteristics identified as size, teaching status, and ownership, on the perceived professional practice environment on acute care medical-surgical units?

# Study Design

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- Descriptive, Correlation
- Cross-Sectional
- Setting & sample
  - 4 metro area hospitals
  - 24 /32 medical-surgical units
  - 337 / 750 eligible Registered Nurses

# Study Instruments

Variable	Instrument	Level of Measurement
Professional Practice Work Environment	PES-NWI (Lake, 2002)	Individual Aggregate to Unit (or organization)
Staff Nurse Care Coordination	NCCI (Lamb et. al, 2007)	Individual Aggregate to Unit
Relational Coordination (alternate measure)	RCI (Gittell, 2000)	Individual Aggregate to Team (or Unit)

# Study Instruments

Variable	Instrument	Level of Measurement
Ambulatory Sensitive Chronic Condition (% ASCC)	Administrative Data-  ASCC patients / discharged patients	Patient Care Unit level
Hospital Characteristics: Size Teaching Status Ownership	Administrative Data	Organizational level (antecedent to unit level)

# Study Instruments

## Professional Practice Environment PES-NWI (Lake, 2002)

		Strongly Agree	Agree	Disagree	Strongly Disagree
1	Adequate support services allow me to spend time with my patients.	1	2	3	4
2	Physicians and nurses have good working relationships	1	2	3	4
3	A supervisory staff that is supportive of the nurses.	1	2	3	4

# Study Instruments

## Nurse Care Coordination Inventory NCCI (Lamb et al. 2008)

	How much time do you spend on this activity in a usual shift?				
	< 30 Min	31-60 Min	61-90 Min	91-120 Min	> 120 Min
1. I initiate actions to get my <b>nursing team</b> members to do what is needed to keep my patients on their plan of care.					
2. I initiate actions to get my <b>interdisciplinary team members</b> to do what is needed to keep my patients on their plan of care.					

# Study Instruments

## Relational Coordination Instrument RCI (Gittell, 2000)

3. Do people in these groups communicate with you in a timely way about caring for patients?	Never	Rarely	Occasionally	Often	Constantly	N/A
A. Dietitian						
B. Pharmacist						
C. Physicians						
D. Other Registered Nurses						
E. Other Nursing Team Members						
F. Social Workers						
G. Therapists						

# Significant Results ( $p < 0.05$ )

## RQ1A: Practice Environment and Care Coordination

Independent variable	Dependent variable	R	R <sup>2</sup>	$\beta$	$p$
PES-NWI	NCCI General A	-.41	.17	-.41	.05
	NCCI Backfilling	-.51	.26	-.51	.01
	RCI Total Scale	.48	.23	.48	.02

# Significant Results ( $p < 0.05$ )

## RQ1B: Chronic Illness and Care Coordination

Independent variable	Dependent variable	R	R <sup>2</sup>	$\beta$	$p$
ASCC	NCCI General A	-.88	.79	-.68	.01

- RQ 2 uses hospital 3 unit data only – sample size 7

# Significant Results ( $p < 0.05$ )

RQ1C: Hospital and practice environment

Independent variable	Dependent variable	R <sup>2</sup>
Size	NCCI Gen A	NS
Teaching status		NS
Ownership		NS

# Major Findings

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- Significant negative relationship between level of professional practice and time spent on general activities of staff nurse care coordination
- Significant negative relationship between level of professional practice and frequency of “Backfilling”



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# Additional Findings

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- Significant positive relationship between perceived professional practice environment and relational coordination
- Significant negative relationship between percent of chronic illness patients on the unit and the time spent on general activities of staff nurse care coordination

# Summary

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- New direction for nursing research
  - Examines the structure-process link
  - Significant negative relationship

PES to SNCC
- Contributes important knowledge
  - Understanding of the work of staff nurses
  - Impact of the practice environment

# Implications for Practice

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- Focus on practice environment
  - Supports nursing care and patient outcomes
- Pay attention to amount of RN “Backfilling”
  - Indication of practice environment or system failures
  - Inefficient use of RN time during shortage

# In conclusion

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The work of staff nurses is:

- Crux of hospital care
- Difficult to measure
- Offers link between nurse and outcomes



Improved  
Nursing process



Improved  
Patient Care

