Rochester Nursing Competence Theory
- A Theory Derivation Approach

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Background

• Nurses’ competence is critical to patient outcomes


• A major challenge is nursing competence does not always increase in a linear fashion

• Limited evidences or theories delineate competence in a career-long perspective
## Approach: Theory Derivation

Walker & Avant’s (2005) theory derivation strategies

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Details</th>
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<tbody>
<tr>
<td>Step 1</td>
<td>Familiar with the literature on the topic of interest</td>
<td>Studies between 1980 to 2016</td>
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<td>Step 2</td>
<td>Read in other fields for ideas</td>
<td>Economics &amp; Social Theories</td>
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<td>Step 3</td>
<td>Select a parent theory for derivation</td>
<td>Product Life Cycle Theory (Vernon, 1966)</td>
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<td>Step 4</td>
<td>Identify contents or structures to adapt</td>
<td>Adapt and modify constructs</td>
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<td>Step 5</td>
<td>Develop the new theory</td>
<td>Rochester Nursing Competence Theory</td>
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Parent Theory - Product Life Cycle Theory
(Vernon, 1966)

- Introduction
- Growth
- Maturity
- Decline

Stimulate consumption
Reduce profit

Product Extension

Sales vs. Time
Rochester Nursing Competence Theory

- A theory describes a dynamic relationship between nursing competence and patient outcomes

- Two major concepts:
  - Nursing Competence
  - Patient Outcomes
Concepts Definition

• **Nursing Competence (X-axis):**
  - The capability to perform to acquire desirable outcomes according to various clinical situations
  - Attributes: characteristics, knowledge, skills, ethical values, and experience
Concepts Definition

• Patients Positive Outcomes (Y-axis):

  - Effects of clinical nursing care, driven by nursing competence

  EX: nursing sensitive indicators (falls, infection), spectrum from patient to family centered
Rochester Nursing Competence Theory

Theory derivation from Product Life Cycle Theory (Vernon, 1966)
- Equipped with knowledge but limited clinical experience
- Rely more on rules, guidelines, or maxims
- Less flexibility to deal with various situations
- Make modest contribution to patient positive outcomes
- The novice provides basic needs to patient positive outcomes
- More familiar with the work environment
- Awareness of pattern, common nursing problems of the patient
- Flexibility increased, could handle some clinical problems
- Experience and skills work synergistically improving patient positive outcomes
- Sophisticated with the work environment and patients
- Knowledge and skills become fluid and flexible
- Apply tacit knowledge in clinical practice
- Produce the highest quality of patient outcomes
- Nurses are at risk of decline competence
- Decline occurs if lacking resources or updating information
- Maintain a certain level of patient positive outcomes
- May or may not be excluded from the field
Strategies to maintain competence

- Strategies formed as ecological model influencing each other

- **Individual level**: internal motivation
- **System level**: continuing education, culture of units
- **Environmental level**: magnet hospital, hospital or state policies
Competence is a dynamic trajectory with four stages:
- Nursing competence is positively associated with patient positive outcomes.
- Strategies as moderators influence the relationship.
- Each level of strategies influence each other.
<table>
<thead>
<tr>
<th>Description</th>
<th>Parent Theory</th>
<th>Derived Theory</th>
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<tbody>
<tr>
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<td>Product Life Cycle</td>
<td>Rochester Nursing Competence</td>
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<tr>
<td>Description</td>
<td>An expected life cycle of a product in the market</td>
<td>A dynamic trajectory of competence in a career-long perspective</td>
</tr>
<tr>
<td>Concept</td>
<td>Product life cycle vs. Sales</td>
<td>Competence vs. Patient Outcomes</td>
</tr>
<tr>
<td>Structure</td>
<td>Four stages: Introduction Growth stage Mature stage Decline stage</td>
<td>Four stages: Beginning* Growth Maturation Decline*</td>
</tr>
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<td></td>
<td>Strategies: Stimulate consumption Reduce profit</td>
<td>Strategies *: Three levels to maintain competence: Individual level System level Environment level</td>
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<td>Modification</td>
<td>- Begin with zero sales - Product eliminated from the market</td>
<td>- Novice begins with little contribution - Nurse not leave the field - Three-level strategies</td>
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Conclusions

• A new derived theory is developed and describes a dynamic relationship between nursing competence and patient outcomes

• A trajectory of nursing competence in a career-long perspective

• This new theory incorporates both growth and decline

• The theory is generalizable and testable to other fields related to health care
Acknowledgement

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