

Nursing Research Series

Essentials of Science: Methods, Appraisal and Utilization

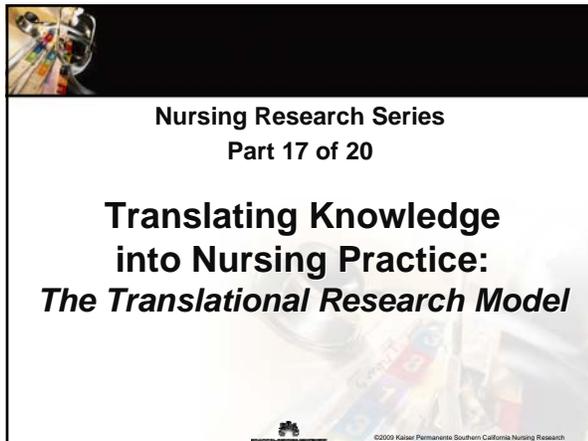


Nursing Research Series

*Essentials of Science:
Methods, Appraisal and Utilization*



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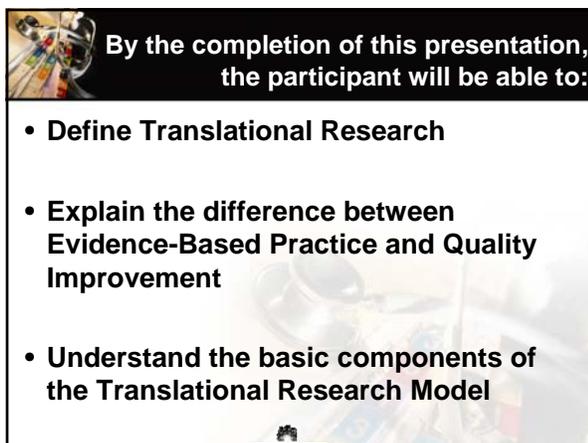


Nursing Research Series
Part 17 of 20

**Translating Knowledge
into Nursing Practice:
*The Translational Research Model***



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**By the completion of this presentation,
the participant will be able to:**

- Define Translational Research
- Explain the difference between Evidence-Based Practice and Quality Improvement
- Understand the basic components of the Translational Research Model



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Transitioning to Translational Research

- Most researchers use a two model worldview to frame research
 - Research Studies
 - Evidence-Based Practice (EBP) Projects
- In 2008, the Kaiser Permanente (KP) Southern California Nursing Research Program moved to an single model format
 - Translational Research



Translational Research



- Prioritizes Nursing Research Program personnel activities
- Raises the sophistication “bar” for KP nurses
- Aligns nursing research program & current KP projects with the community to expand grant funding & publication opportunities
- Assists in the dissemination of Nursing Research beyond nursing venues



Translational Research

- Explains the difference between EBP projects and quality improvement (QI) projects
 - QI: A structured process
 - Evaluates a specific system’s strengths & limitations, system parts, and resulting outcomes
 - Final product of the QI process is *information*, not new knowledge
 - EBP: A systematic process
 - Implements interventions stemming from new knowledge generated by research

Integrates scientific discoveries into nursing practice

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What is Translational Research?

- Research that translates scientific discoveries and advances from the bench or laboratory into a clinically germane application.
– *National Institutes of Health*
- Scientific investigation of methods interventions and variables that influence adoption of evidence-based practice by individuals and organizations to improve clinical and operational decision making in health care. This includes testing the effect of interventions on promoting and sustaining evidence based practice.
– *Titler, 2004*



What is Translational Research?

- “Type 1” and “Type 2” forms of translational research are specifically needed in nursing research
– *Chelsa, 2008*
- “Type 1” and “Type 2” are needed, with a possible “Type 3”
– *Mitchell, 2008*
- Other definitions can be compiled from the healthcare community and overall healthcare directives



Definition of Translational Research

“A **systematic investigation** that has as its purpose the development of **generalizable knowledge** that explains or improves **clinical practice(s)** sourced from **evidence** (including theory testing) or previous research.”

– *Southern California Nursing Research Program, 2008*

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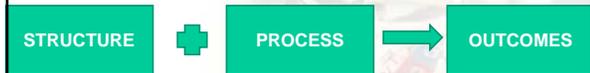
Translational Research Model

- Uses the definition to embed EBP into a model illustrating Translational Research (TR)
- Areas of Consensus:
 - Team-centered with individuals who:
 - Have different areas of expertise
 - Come from multiple disciplines
- Uses an iterative process
 - from the Laboratory to the Patient and back
- Aims to move knowledge from journals or academic setting to healthcare practitioners

TR Model Creation

Structure + Process = Outcomes
(Donabedian, 1972)

Donabedian's model proposes that each component has a direct influence on the next



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graph LR; S[STRUCTURE] -- "+" --> P[PROCESS]; P -- "→" --> O[OUTCOMES];
```

TR Model Components

Translational Research is divided into three types

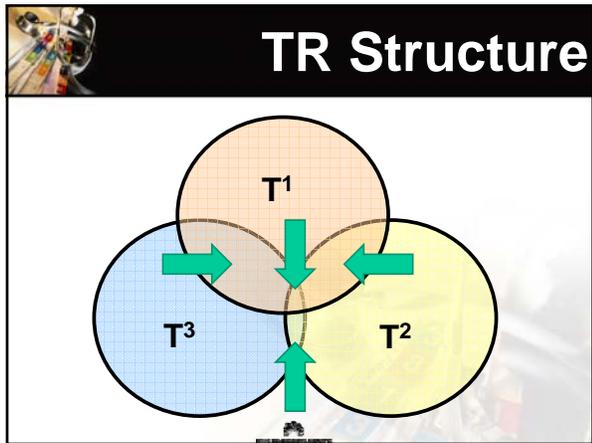
- [T1: Basic science potentially affecting practice](#)
 - bench to bedside/laboratory to human
- [T2: New knowledge tested in the clinical setting](#)
 - bedside to community/evidence to practice
- [T3: Implementation of evidence beyond the pilot and population\(s\) with testing systems change](#)
 - Organizational or professional impact

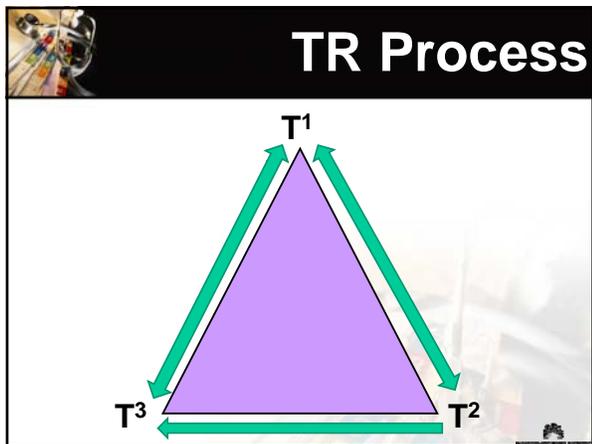
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TR Model Components

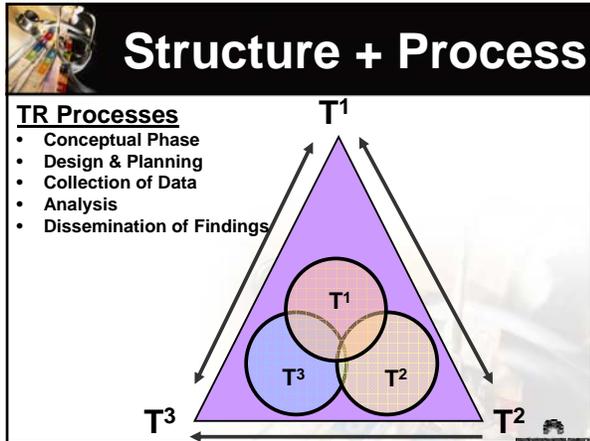
	Structure/ Type of Research	Process	Outcome/ Product of Research
T ¹	Basic Science; Theory development/ Basic Research	Basic Science	New Knowledge
T ²	Test evidence-based interventions in practice	Evaluation of findings of Integrative Reviews/ Systematic Reviews in a Population	Outcome Improvement in populations
T ³	Implement and test systems change; best practice considering consumer factors	Guideline Development and Testing	Systems Change

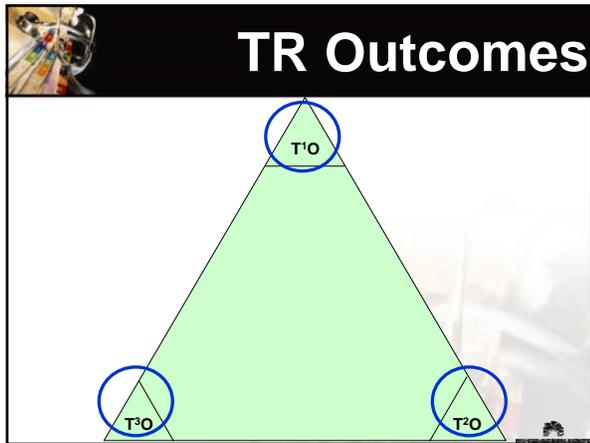


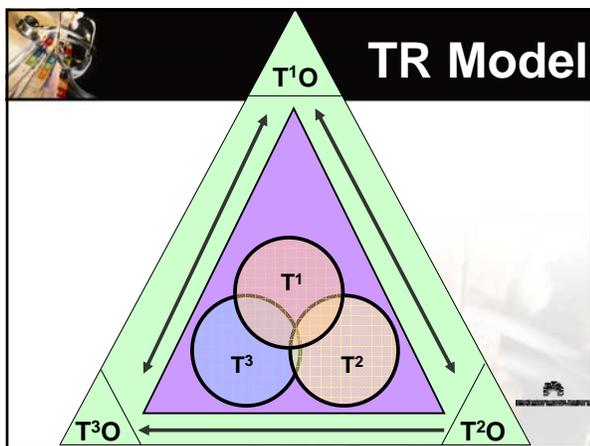


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TR Model in Action

Southern California Nursing Research Committee
Translational Research Studies

Last Update: April 30, 2009

Study Title	Study Description	N	T	Status
Caring as perceived by patients and nurses	The purpose of this study is to describe the perceptions of patients and nurses related to caring in the ICU context to see if there are differences related to the hospital's healthcare.	Yes	T3	Continued
Education Alteration	Reference-based educational program for teaching adult patients with CHF and their families in the inpatient setting.	No	T2	Continued
Enhancing Recovery after Cardiac Surgery	Cognitive Behavioral Therapy on biologic markers and depressive symptoms in patients recovering from Coronary Bypass Craft surgery.	Yes	T1	Continued
Using Evidence Family Time (O.I.P. T) Project	Internal patient cohort attachment and evaluate socializing via skin-to-skin contact and time alone during the postpartum period.	Yes	T2	Continued
Hourly Rounding An Action Research Study	Intervention to determine what differences in selected short and long-term organizational, professional and patient outcomes result from the implementation of the hourly rounding using different rounding strategies.	Yes	T3	Continued

T1: New Knowledge

**Basic Science;
Theory Development/
Basic Research**

+

Basic Science

→

New Knowledge

“Nurses Attitudes Towards People of Size (300-500lb) and People of Significant Size (500lb- 1200lb)”

Evaluate the effects of obesity sensitivity training on nurses’ knowledge & attitudes towards adult hospitalized obese patients

- Increase nurse awareness of obesity discrimination
- Improve knowledge-base and sensitivity of nurses towards the obese patient population.

T2: Improving Population Outcomes

Test evidence-based interventions in practice

+

Evaluation of findings of Integrative Reviews/ Systematic Reviews in a Population

→

Outcome Improvement in Populations

“A Nursing Strategy to Improve Patients Compliance with Self-Monitoring for Symptoms of Heart Failure”

- Effectiveness of a teaching strategy for hospitalized HF patients
- Identify HF patients who report lack of a home scale
 - Intervention Group: Scales dispensed to 50 people meeting selection criteria
 - Comparison Group: 50 people meeting criteria not receiving a scale
 - Both groups will receive the usual discharge HF teaching
- Outcomes: Will this simple practice improve teaching effectiveness?
 - Increased patient compliance with daily weights
 - Decreased readmission rates

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T1/ T2: New Knowledge + Outcomes Improvement

“Pre-albumin Screening to Decrease Hospital Acquired Pressure Ulcers”

- Decrease rate of hospital acquired pressure ulcers by
 - Monitoring pre-albumin levels
 - Intervening timely and appropriately by maximizing patients nutritional regimen



- Overall goal is to improve the patient's quality of life, decrease pain, decrease cost & length of stay

T3: Systems Change



“Hourly Rounding: An Action Research Study”

- Identify successful structures, tools, and processes in both implementing and sustaining rounding behaviors by staff nurses
- Study Aim: present generated evidence of valuable hourly rounding strategies to providers who care for a variety of hospitalized populations

T2/ T3: Outcomes Improvement + Systems Change



“CalNOC Partners to Reduce Patient Falls Project (TRIP)”

- Testing an evidence-based intervention to create a systems change
- A multi-site study aimed to reduce the incidence of pt falls and severity of falls using evidence based coaching, education, and consultation to implement assessment and prevention methods based on clinical effectiveness data

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TR Model Implementation

- Development and implementation of models such as the TR Model can result in a strategic infrastructure giving a voice to nursing research activities within large integrated healthcare systems
 - Adaptation and dissemination through the Southern California KP Nursing Research
 - Website
 - Grants
 - Annual Conference

<http://nursingpathways.kp.org/scal/research>

TR Model Implementation

Research studies & EBP Projects no longer viewed as separate entities

Integration of scientific discoveries into nursing practice

- Distinct research studies which are seeking clearly defined outcomes
- Able to differentiate quality improvement projects from research studies

T³O, T²O

Translational Research Model Development Team



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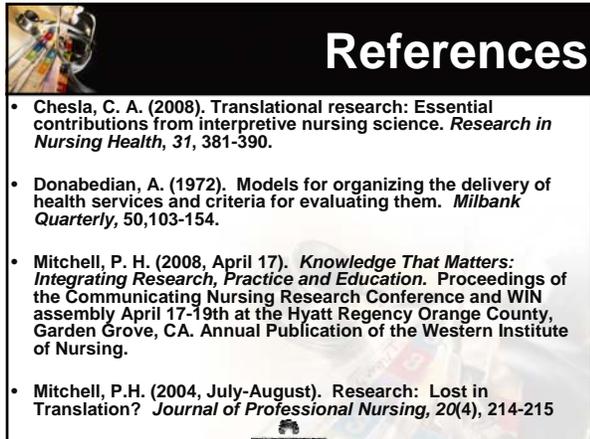
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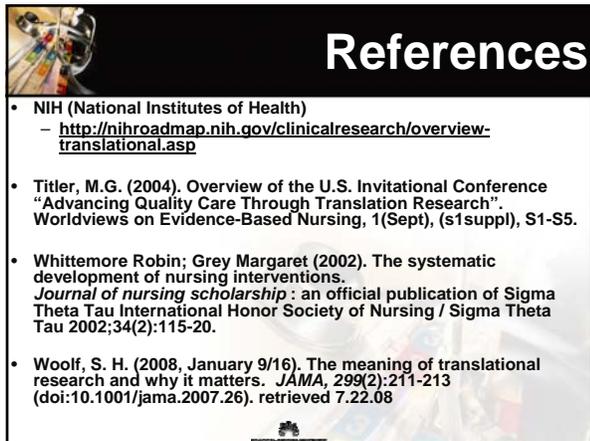
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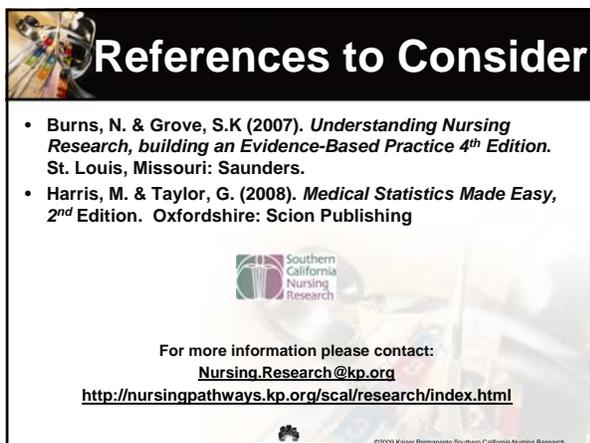
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