Implementation Science for Optimal Health: The Power of Behavioral Strategies

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Implementation Science for Optimal Health: The Power of Behavioral Strategies

Objectives

- Describe implementation science and models that support implementation research.
- Apply change theories to implementation science models.
- Discuss the impact of change related to implementation on nurses’ resilience and well-being.

Intention

- Review with you
  - What Implementation Science is
  - Where and why it emerged
    - NIH initiative
  - Translation science spectrum
  - Differentiate innovation, dissemination and implementation
  - Other terminology
    - Pragmatic vs explanatory studies

Intention cont.

- Highlight change theories, models, frameworks
  - Phases of change
  - Models of behavior change
  - Characteristics of stages of change
  - Recipients of change – key stakeholders
    - Patients, clinicians, organizations
- Present resilience as change management strategy
- Summarize

What is Implementation Science?

- The scientific study of methods to promote the systematic uptake of research findings and other EBPs into routine practice to improve the quality and effectiveness of health services and care.

Where and Why Did Implementation Science (IS) Emerge?

- Borne out of a desire to address challenges associated with the use of research to achieve more evidence-based practice (EBP) in health care and other areas of professional practice
- Cited gap ........
- Need to establish the theoretical bases of implementation and strategies to facilitate


Terminology Challenges

- Implementation is part of a diffusion-dissemination-implementation continuum.
  - Diffusion – the passive, untargeted and unplanned spread of new practice
  - Dissemination – the active spread of new practices to a target audience using planned strategies
  - Implementation – the process of putting to use or integrating new practices within a setting

What is Translation?

- The process of turning observations in the laboratory, clinic and community into interventions that improve the health of individuals and the public — from diagnostics and therapeutics to medical procedures and behavioral changes.

NIH National Center for Advancing Translation Science.
https://ncats.nih.gov/translation/spectrum

Research to Practice Gap

......and this is for the 14% that make it


What is Translation Science?

- The field of investigation focused on understanding the scientific and operational principles underlying each step of the translational process.

NIH National Center for Advancing Translation Science.
https://ncats.nih.gov/translation/spectrum

Translational Science Spectrum

NIH National Center for Advancing Translation Science.
https://ncats.nih.gov/translation/spectrum
Theories, Models & Frameworks in Implementation Science


Process Model


Determinants Framework


Consolidated Framework for Implementation Research (CFIR)


Determinants Framework


Classic Theories

The law of diffusion of innovation


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Evaluation Framework


Implementation Strategies for Promoting Change

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Number of studies</th>
<th>Number of studies</th>
<th>Conclusions</th>
</tr>
</thead>
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<tr>
<td>Change management</td>
<td>4</td>
<td>5-17</td>
<td>Mixed effects</td>
</tr>
<tr>
<td>Conference, courses</td>
<td>4</td>
<td>2-4</td>
<td>Mixed effects, limited number of studies</td>
</tr>
<tr>
<td>Increase, change, meetings</td>
<td>2</td>
<td>9-24</td>
<td>Mixed effects, depends on organizations and implementation methods</td>
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<tr>
<td>Education and training</td>
<td>8</td>
<td>2-8</td>
<td>Effectiveness in preventing/management</td>
</tr>
<tr>
<td>Use of software</td>
<td>6</td>
<td>3-9</td>
<td>Mixed effects, depends on the implementation method</td>
</tr>
<tr>
<td>Education and training</td>
<td>8</td>
<td>5-12</td>
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<tr>
<td>Use of computer systems</td>
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<td>1-14</td>
<td>Mixed effects, may require additional education and support</td>
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Determinants Framework

Evidence-Based Practice in Action: Implementation Guide

Organizational Readiness

Summary

- What Role Do **YOU** Play in EBP Implementation?
- How Can **YOU** Build Resilience and Be the EBP Implementation and Change Champion?

Group Exercise

- Sit up straight in your chair
- Now cross your arms
  - Like you are bored or waiting for something
- Now fold your arms the other way

Reactions

- How did it feel when you were asked to cross your arms the other way?
- Did it come naturally or did you have to stop and think about it?
- Were you comfortable with doing this differently from your normal process?
- What are some things that make people resistant to change?
Who Loves Change??

The Adoption – Decision Process

Everett Rogers

Knowledge

Persuasion

Decision

Implementation

Confirmation

New or contemporary problem?

Change Theories

- Lewin – Unfreeze, movement, refreeze
- Lippitt’s Phases of Change – 7 steps
- Prochaska & DiClemente’s Stages of Change – Transtheoretical
- Social Cognitive Theory – Bandura
- Theory of Reasoned Action and Planned Behavior
- Rogers Diffusion of Innovation Theory


Changing Behavior is HARD!

Individuals fail at behavior change 70-90% over time, at least with their first attempt.

70% of all changes attempted in organizations fail

This failure rate has been consistent for decades

Overcoming Resistant to Change

It has been a characteristic of American society to change products and methods of living plans as often as the progress of science and technology allows. This makes frequent changes in an individual's work necessary. In addition, the mental and emotional rebellion of some people is such that even when they are convinced of the benefits, they may not see the wisdom of the change. The resistance to change has been a problem in all phases of development. In this chapter, we will discuss some of the factors which influence the rate of change, and some of the ways that individuals can be influenced to accept new ideas.
Research findings do not get translated into clinical practice, even with clinical guidelines. 30-40% patients do not get treatments of proven effectiveness. 20-25% patients get care not needed or potentially harmful. 48-49% of medical practices lack systematic research evidence to support.

Knowledge is Insufficient

Practice Gap Examples

Why gaps exist?

Behavior Change Resistance Occurs at Many Levels

Quadruple Aim - IHI

Physicians and other members of the health care workforce report widespread burnout and dissatisfaction. Burnout is associated with lower patient satisfaction, reduced health outcomes, and it may increase costs.

Melnyk et al. (2018)

- Examined nurses’ physical and mental health, relationship between health and medical errors; and association between nurses’ perceptions of wellness support and their health
- Cross-sectional descriptive survey
- 1790 nurses across the U.S.
- >50% reported suboptimal physical and mental health
- Approximately half reported having medical errors in the past 5 years
- Those with worse health were 26% to 71% more likely to report medical errors
- Greater perceived worksite wellness was associated with better health
- Wellness must be a high priority for health care systems to optimize health in clinicians to enhance high-quality care and decrease the odds of costly preventable medical errors

Targeting NEAT & Environment of Hospital Nurses to Increase PA

- Tested a 10-week worksite intervention aimed to integrate physical activity (PA) into the work flow of overweight hospital registered nurses who were mothers of minor children.
- Targeted non-exercise activity thermogenesis (NEAT)
- NEAT includes activities of living:
  - Posture
  - Walking
  - Dancing
  - Shopping
  - Chatting
  - Mowing the lawn
  - Tapping your toes
- Findings
  - Increases in PA for both groups
  - Significant effects for fat mass and percent fat
  - Feedback from focus groups was positive.
Self-Care: An Evidence-Based Health Promotion Intervention

Significant benefits for many health conditions
Improves mental health, memory, concentration, and productivity
Reduces job burnout for healthcare providers and teachers

Endorsed by NIH for:
- Babcock, 2016; Gotink et al., 2015; Luken & Sammons, 2016; Mars & Abbey, 2009; Olson & Emery, 2015

Research Focused On Self Care and Self-Management

Mindfulness/Meditation Benefits for Nurses

- Mindfulness-based stress reduction (MBSR) translated for health staff
- Reduced burn-out, stress, and turn-over
- Improve health symptoms, quality of life

Mindfulness/Meditation Benefits for Nurses

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Resilience

- Werner (1989) conducted 32-yr longitudinal project
- Followed 698 children in Kauai from before birth through their 3rd decade of life
- 1/3 were considered at-risk and of these 1/3 developed into competent, confident, and caring young adults
- Werner wrote:
  - Perhaps most importantly, the resilient children had what psychologists call an “internal locus of control”: they believed that they, and not their circumstances, affected their achievements. The resilient children saw themselves as the orchestrators of their own fates.
Thank You!

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