The impact equation: Relative reach and efficacy of continence promotion efforts

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Translational Research Continuum

https://ictr.wisc.edu/what-are-the-t0-to-t4-research-classifications/
The gap between research and practice

The U.S. spends $130 billion annually on health research.

But it takes an average of 17 years to translate 14% of original research into benefits for the public.

Slide courtesy of Melody Bockenfeld & Jane Mahoney
One of our greatest challenges to achieving improved health for the public is closing the gap between:

- What we know works to improve health
- And what we actually implement in community and clinical settings

Most proven interventions do not get implemented.
Why doesn’t discovery lead to use?

- Intervention not ready for broad dissemination
- End users not aware of intervention
- Intervention not formatted for end-users
- Resources / infrastructure not in place to promote dissemination and maintenance
Impact = Reach x Efficacy

Impact = Effectiveness x Dissemination x Maintenance
Incontinence is a big problem.

More than 60% of women over 65 years old have bladder or bowel incontinence.

Increases risk for falls, nursing home placement, social isolation & depression.

Most women do not seek care.

Effective solutions exist.
Classes that promote behavior change work.
PREVENTION OF URINARY INCONTINENCE BY BEHAVIORAL MODIFICATION PROGRAM: A RANDOMIZED, CONTROLLED TRIAL AMONG OLDER WOMEN IN THE COMMUNITY

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Why isn’t incontinence on this list?

Diabetes, arthritis, hypertension, lung disease. Chronic diseases like these can force seniors to give up their independence too soon. We distribute proven programs in-person and online that empower individuals to manage their own care and improve their quality of life.
Why doesn’t discovery lead to use?

- Intervention not ready for broad dissemination
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To assess feasibility of an evidence-based bladder continence promotion program adapted to:

• Target both bladder and bowel symptoms
• Be implemented by community members rather than healthcare professionals

Harness existing dissemination infrastructure (WIHA)
Mind Over Matter: Healthy Bowels, Healthy Bladder

Small group program led by a community member

Helps women build skills and confidence to:

• Change behaviors to improve health
• Support and learn from one another
• Find professional help if needed
FROM ‘CAN WE DO IT?’ TO ‘SHOULD WE DO IT?’ AND ‘HOW?’

- December 2014: Adaptation & Pilot-testing
- December 2015
- December 2016
- December 2017
- December 2018
- December 2019: Dissemination across WI

**RCT**

**Implementation Package**

**Online adaptation & pilot-testing**
Effectiveness-implementation Hybrid Designs

Combining Elements of Clinical Effectiveness and Implementation Research to Enhance Public Health Impact

Geoffrey M. Curran, PhD† Mark Beizer, MD† Brian Minman, PhD† Jaffrey M. Payne, MD‡ and Cheryl Stelzer, PhD‡

Objective: This study proposes methods for blending design components of clinical effectiveness and implementation research. Such blending can provide benefits over pursuing these lines of research independently, for example, more rapid translational gains, more effective implementation strategies, and more useful information for decision makers. This study proposes a “hybrid effectiveness-implementation” typology, describes a rationale for their use, outlines the design decisions that must be faced, and provides several real-world examples.

Results: An effectiveness-implementation hybrid design is one that takes a dual focus on assessing the clinical effectiveness and implementation. We propose 3 hybrid types: (1) testing effects of a clinical intervention on relevant outcomes while observing and gathering information on implementation; (2) dual testing of clinical and implementation interventions/strategies; and (3) testing of an implementation strategy while observing and gathering information on the clinical intervention’s impact on relevant outcomes.

Conclusions: The hybrid typology proposed herein must be considered a construct still in evolution. Although traditional clinical effectiveness and implementation trials are likely to remain the most common approach for proving a clinical intervention through from efficacy research to public health, proposed hybrid designs could yield findings into routine practice.

Key Words: diffusion of innovation, clinical trials, pragmatic designs

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The authors declaring no conflict of interest.

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DEFINING TERMINOLOGY

Terminology in this study has been informed by a glossary provided by the Department of Veterans Affairs Quality Enhancement Research Initiative (VAQuERI).
Aim 1: Effectiveness (It works!)

**Urogynecology: Original Research**

**Small-Group, Community-Member Intervention for Urinary and Bowel Incontinence**

*A Randomized Controlled Trial*

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**OBJECTIVE:** To evaluate the effects of Mind Over Matter: Healthy Bowels, Healthy Bladder, a small-group intervention, on urinary and bowel incontinence symptoms at 4 months. Validated instruments assessed incontinence, self-efficacy, depression, and barriers to care-seeking. Intent-to-treat analyses compared differences between groups. Target sample size, based on an effect size of 0.5, an improvement rate of 45% in treated women, and 30% in the control group, 90% power, type I error of 0.05, and anticipated attrition of 25%, was 110. Among 121 women randomized (62 treatment, 59 control group), 116 (95%) completed the 4-

**Bladder – 9 fold**

**Bowel – 4 fold**

Aim 2: Adoption & maintenance (Yep!)

After the Randomized Trial: Implementation of Community-Based Continence Promotion in the Real World

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First year of dissemination

22 counties
282 women
And moving on...
Eligible for Older Americans Act Funds

Health Promotion

It is understood that evidence-based disease prevention and health promotion programs reduce the need for more costly medical interventions. Formula grants are available under the Older Americans Act.

Disease Prevention and Health Promotion Services

(OAA Title III-D)

Authorizing Legislation: Section 361 of the Older Americans Act (OAA) of 1965, as amended.

Background on Definition of Evidence-Based Programs

States that receive Older Americans Act funds under Title III are required to spend those funds on evidence-based programs to improve health and well-being, and reduce disease and injury. Since 2003, the aging services network has been steadily moving towards wider implementation of disease prevention and health promotion programs that are based on scientific evidence and demonstrated to improve the health of older adults. The FY 2013 Congressional
The Impact Equation

Impact = Reach x Efficacy
Impact = Effectiveness x Dissemination x Maintenance

Aim 3: D&I?

THANK YOU

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QUESTIONS?