TRANSLATION AND IMPLEMENTATION CHALLENGES IN COMMUNITY-BASED BEHAVIORAL INTERVENTIONS

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1. Describe the overall process of translation of research to practice
2. Identify key transition points in the translation of research
3. Apply the RE-AIM framework to research translation and dissemination
4. List at least five major barriers associated with successful and timely translation of research to broader dissemination
5. Describe at least 3 strategies that facilitate translation of research
6. Differentiate between translation of research and translational research
“The transition of scientifically tested research findings to community-based health promotion programs is often slow, fragmented, and subject to speculation by the practitioner community.”

“The ‘lessons learned’ from practitioners who develop and administer health behavior intervention programs for the benefit of their communities are slow to influence subsequent health behavior research.” Prohaska et al 2000
Average 17 yrs for a fraction of efficacious treatments to move into practice Balas, et al.,
www.ahrq.gov/clinic/trip1997
1943 Papanicolaou test perfected;
1995 Screening programs for cervical cancer established in all states
1964 US Surgeon General’s Advisory Committee concludes that smoking causes disease
1993 Statewide tobacco control programs established in all states
Definitions of Translation of research

Translation: is a process by which innovations in research are applied to other settings, populations and conditions not previously applied.

Translational research is the science of accelerating research to its useful application.

Vague, dependent on scientific perspective (e.g. biomedical-bench to bedside; social behavioral-research to community practice).

Transitional chain; proximal to distal, with natural transitions links often divided by discipline.

Dependent of the “consumer” individual, clinic, agency, community.
What is the incidence and prevalence of various types and levels of PA among diverse older populations?
What are the health benefits of PA and the consequences of sedentary behavior among older populations?
What are the antecedents, factors and mechanisms influence the initiation, maintenance and non-participation in PA among older adults
Can we intervene on PA and if so, under what conditions and settings does this work best?
Can we develop interventions and policies to maintain PA activity in older populations and if so, what are the criteria which to evaluate their success?
Sources for the Lack of Translation Between Research and Practice

Delays in the research process
Limitations in the communication of research findings
Use of Theory and Research Models
Unidirectional nature of the transition
Constraints in program application
Different measures of outcomes and success
Issues in Translation and Dissemination

- Differences in Focus on outcomes
- Attention to Treatment Fidelity
- Program Adaptation
- External and Internal Validity
- Program Reach
Focus on Outcomes

- Researcher - validated measures established by the research community
- Program Planner — cost effectiveness and compatibility with agency priorities
- Older participant -- valued meaningful and observable outcomes
Definition Treatment Fidelity

- Refers to the methodological strategies used to monitor and enhance the reliability and validity of the intervention.
- Is a process by which investigator ensures the quality, reliability and validity of the intervention.
- Is a method to ensure that the essential elements of the intervention and only the intervention account for study outcomes.
Without adequate assessment of treatment fidelity, ineffective programs may become widely disseminated (something other than the intervention accounted for the success) and potentially successful programs may be prematurely rejected.

Assessment of treatment fidelity can improve study design, improve effectiveness of the intervention, reduce program “drift” and facilitate research/program dissemination.
Issue of Treatment Fidelity in Dissemination

- Practitioners may adapt program components to fit their circumstances, at times compromising the effectiveness of the program.
- Monitoring of treatment fidelity is frequently excluded during wider dissemination.
- Program may no longer have the same effect in the community as it had under more controlled and monitored settings.
Criteria for the Development of Health Promotion and Education Programs

American Public Health Association 1987

- Reflect a consideration of the special characteristics needs and preferences of its target groups
- Include interventions which clearly and effectively reduce a targeted risk factor and are appropriate for a particular setting
- Identify and implement interventions which make optimum use of available resources
Healthy Aging Research Network
Social Ecologic Model of Healthy Aging

RE-AIM Translation and Dissemination Framework (Glasgow, Vogt & Boles, 1999)

RE Reach and Efficacy/Effectiveness
AIM Adoption Implementation and Maintenance

The impact of research dissemination is evaluated in terms of
1) depth and range of settings in which the research innovation is adopted
2) degree to which the research innovation is implemented as intended and,
3) degree to which the research is maintained and institutionalized in these settings
RE-AIM Translation and Dissemination Framework (Glasgow, Vogt & Boles, 1999)

Reach: How do I reach the targeted population?

Effectiveness: How do I know my intervention is effective?

Adoption: How do I develop organizational support to deliver my intervention?

Implementation: How do I ensure the intervention is delivered properly?

Maintenance: How do I incorporate the intervention so that it is delivered over the long term?
Greater attention to recruitment attrition in research (who did not participate and why)
Identify differences in research populations versus translation targeted populations
Expand research populations to be more generalizable to real world populations
Ensure that recruitment materials and procedures are appropriately tailored to assure diversity
Involve potential organizations in the research
Identify barriers associated with willingness to adopt research innovations
Identify factors associated with early versus later adopters through translation research
Identify “essential elements” of research innovation
Continue to monitor fidelity and provide feedback on breaches of treatment fidelity
Track modifications of research intervention and monitor consequences (positive and negative) of modification
Incorporate successful adaptations into new research
Strategies to Improve Maintenance

Differentiate between levels of maintenance (e.g., program & participant maintenance)

Monitor programs attrition and participation

Conduct translational research on preventing relapse and promoting reactivation at the program and participant level.
Participatory research interactions
Involvement of organizational partners in the research
Identify mutually agreeable goals and outcomes and organizational needs
Identify and promote “internal champions”
Example of Translation and Dissemination: Physical Activity among older adults

Funding sources:

National Institute on Aging, Robert Wood Johnson Foundation, Center for Disease Control and Prevention, Administration on Aging, local foundations

Research activities:

observational and qualitative studies, RCTs, evidence-based reviews, community demonstration projects, large scale research demonstration projects, best practices evaluations, national demonstration projects.
Example of Translation and Dissemination: Physical Activity among older adults

Translational research multidisciplinary partnerships

Healthy Aging Research Network (HAN) 7 universities, advisory group to the Centers for Disease Control and Prevention

Senior Health Alliance Promoting Exercise (SHAPE)

National Center on Aging (partner on program dissemination)

Research Community Advisory Boards (CABs) older adults, local stakeholders, agency internal champions
Example of Translation and Dissemination: Physical Activity among older adults

Research translation activities

- RCTs in university setting with sedentary healthy older adults
- RCTs exercise interventions among sedentary older adults with arthritis
- Church and Community-based exercise interventions with minority older adults
- Evidence based reviews of physical activity with older adults by chronic illness and level of fraility
Recommendations for Facilitating Translational Research-Collaboration
(Prohaska et al, 2000)

Provide opportunities for direct communication and interaction between researchers, practitioners and organization members likely to adopt the research innovations.

Provide collaborative multidisciplinary research opportunities to promote mutual learning experiences.

Work within organizational settings to identify barriers and to implement programs.
Include outcome measures in your research that is relevant to the priorities of organization and group settings where the research would be disseminated.

Focus greater attention to external validity, recruitment attrition and similar factors that would qualify wider dissemination of the research.

Expand the populations and settings in which the research is conducted (real world application).

Identify the “essential elements” of the research required and develop protocols that assure treatment fidelity.
Thank You