

Transfer von Ergebnisse der Pflegeforschung in die Klinische Praxis:

**Umsetzung von Forschungsergebnisse der
Transplantationsforschung in die Klinische Praxis durch
die Zusammenarbeit von APNs und Forscherinnen**

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Presentation Outline

- 1. Limited long-term survival in solid organ transplantation: The behavioral pathway**
- 2. The Maestro-Tx study:** A RCT to test the efficacy of medication adherence enhancing interventions in Tx
- 3. Implementation science:** Scaling-up effective interventional approaches in real life
- 4. TRANSIT:** Transplantation Innovation team

Improvement in outcomes primarily *limited to first year post-Tx*

ADULT HEART TRANSPLANTATION - Kaplan-Meier Survival by Era -(Transplants: 1/1982 – 6/2010)



ISHLT

2012

J Heart Lung Transplant. 2012 Oct; 31(10): 1045-1095



Blister Collection of 1-year Medication of a Renal Tx Recipient (>4000 pills)



Ambühl Nephrol Dial Transplant 2005;20:1267-8



HOW IMPROVING LONG-TERM OUTCOME IN TRANSPLANTATION??

BEHAVIORAL PATHWAY??

De Geest et al. American Journal of Transplantation, 2012

Medication Nonadherence as a Risk-Factor for Poor Outcomes

Strong evidence of link between subclinical nonadherence and poor clinical outcomes in adult renal, heart and liver transplant recipients

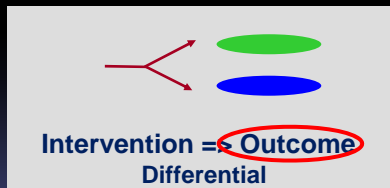
De Geest et al. International Transplantation Updates,
Permanyer Publications, Barcelona, Spain, 2011, pp. 63–81
De Simone, Ducci, De Geest, EAST Study, ESOT Vienna, 2013
Lieber et al Dig Dis Sci 2013; 58: 824-834

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2. **The Maestro-Tx study: A RCT to test the efficacy of medication adherence enhancing interventions in Tx**
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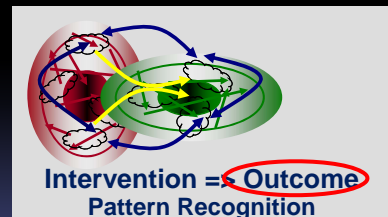
•“Trial-world”

- Efficacy
- “Can it work?”
- Null hypothesis
- Average treatment effect
- “Keep things clear”



•“Real-world”

- Effectiveness
- “Does it work – and when?”
- Alternate hypothesis
- “Live with complexity”

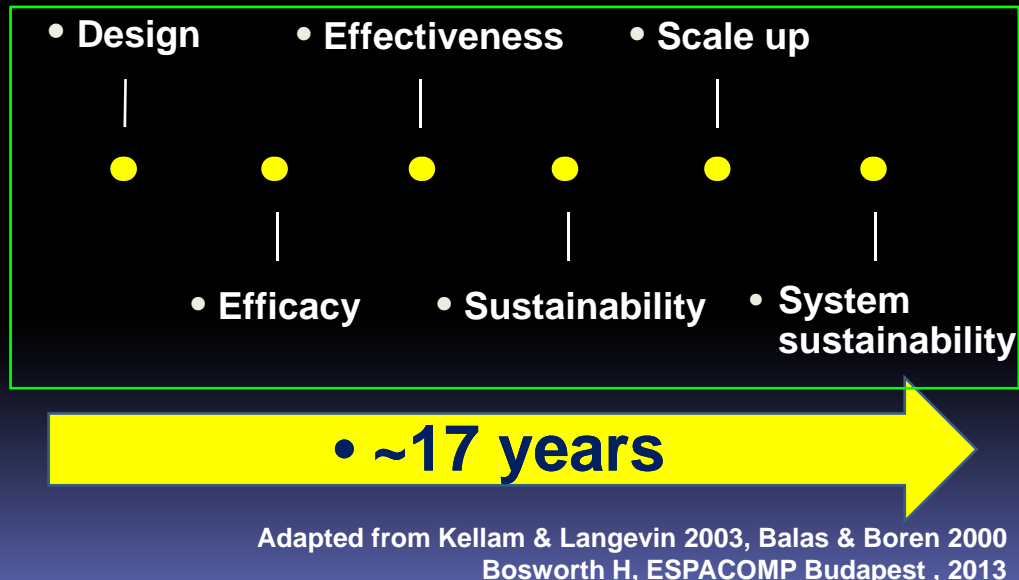


I. Abraham, Matrix 45

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Medication Adherence Challenge



Implementation science

• Definition National Institutes of Health:

Research on implementation addresses the level to which health interventions can fit within real-world public health and clinical service systems.

<http://www.fic.nih.gov/News/Events/implementation-science/Pages/faqs.aspx>
Accessed 21.11.2013

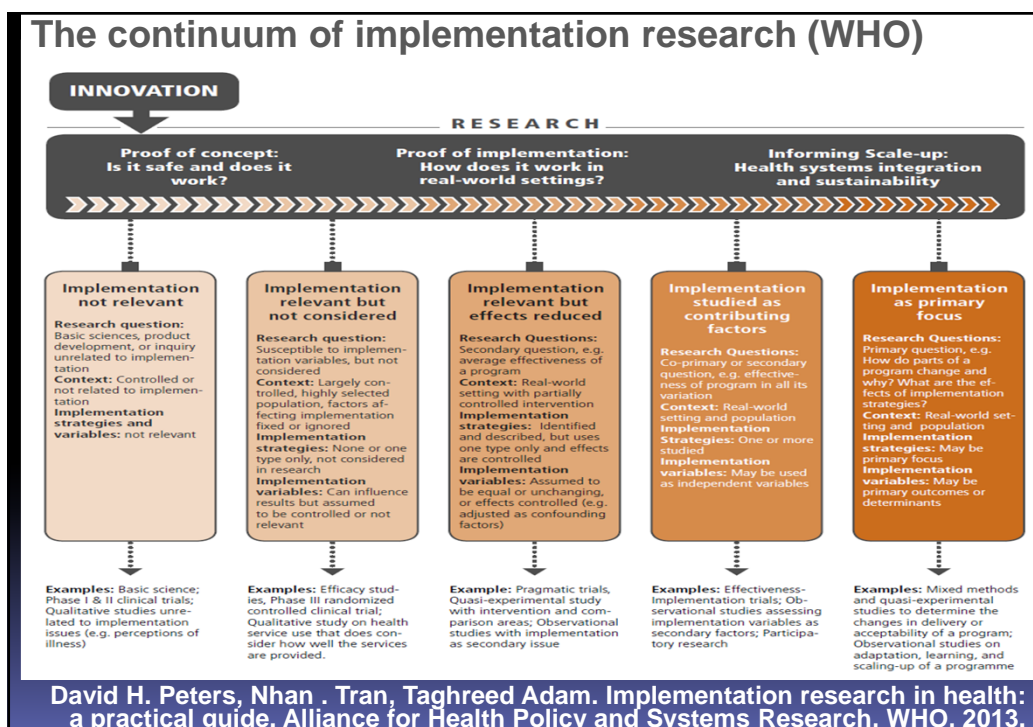
What are some examples of implementation science research?

- Comparisons of multiple evidence-based interventions
- Identification of strategies to encourage provision and use of effective health services
- Identification of strategies to promote the integration of evidence into policy and program decisions.
- Appropriate adaptation of interventions according to population and setting

• Identification of approaches to scale-up effective interventions

- Development of innovative approaches to improve healthcare delivery
- Setting up an impact evaluation for a population based intervention

<http://www.fic.nih.gov/News/Events/implementation-science/Pages/faqs.aspx>
Accessed 21.11.2013



Provider Level Intervention

The health care workforce needs to be equipped with the required competencies for behavioral management

Train health care professionals to:

- Assess patient knowledge, skills, behaviors, confidence and barriers
- Use effective patient-centered communication methods
- Provide effective behavior change interventions
- Utilize collaborative care-planning and problem solving
- Implement quality improvement processes

Viswanathan et al. Annals of Internal Medicine, 2012;
 Berben et al. Western Journal of Nursing Research, 2012;
 De Geest et al. Journal of Renal Nursing, 2010; De Bleser et al. Transplant International, 2009; National Institute for Health and Clinical Excellence, 2009;
 Haynes et al. Cochrane Database of Systematic Reviews, 2008

Physician Communication and Patient Adherence to Treatment: A Meta-analysis

- 21 studies (1949 - August 2008)
- Training physicians in communication skills resulted in substantial and significant improvements in patient adherence

→ the odds of a patient adhering are 1.62 times *better* if his or her physician has been trained in communication skills.



"I want a doctor I can relate to – someone who's at least 15 pounds over his ideal weight"

Zolnieriek et al. Med Care. 2009 Aug;47(8):826-34.

Motivational interviewing



Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateducou

Review

Motivational interviewing in medical care settings: A systematic review and meta-analysis of randomized controlled trials[☆]

Brad Lundahl^{a,*}, Teena Moleni^a, Brian L. Burke^b, Robert Butters^a, Derrik Tollefson^c, Christopher Butler^d, Stephen Rollnick^d

^aCollege of Social Work, University of Utah, Salt Lake City, USA

^bPsychology Department, Fort Lewis College, Durango, USA

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^dInstitute of Primary Care & Public Health, Cardiff University School of Medicine, Cardiff, UK

Lundahl et al. *Patient Education and Counseling* 2013, in press

Health Care Organization Level

Health care organizations

Implement chronic illness management

- Provide tools and skills to health care team
- Provide time to implement behavioral interventions
- Promote continuity and coordination (i.e. follow-up visits, collaboration with home health care)
- Develop care that is proactive and organized around concepts of planning and prevention

Health science schools / health care institutions

- Train in behavioral management

Viswanathan et al. *Annals of Internal Medicine*, 2012;
 Berben et al. *Western Journal of Nursing Research*, 2012;
 Institute of Medicine, 2010; National Institute for Health and Clinical
 Excellence, 2009; Holman, *JAMA*, 2004; WHO, *ICCC*, 2002

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TRANSIT: what is it?

Transplant Innovation Team

Academic Service Partnership (ASP)

“an officially structured partnership between a university and a practice setting with a shared vision that builds on strength, demonstrates collaboration and cooperation, and supports change for the sake of improvements”

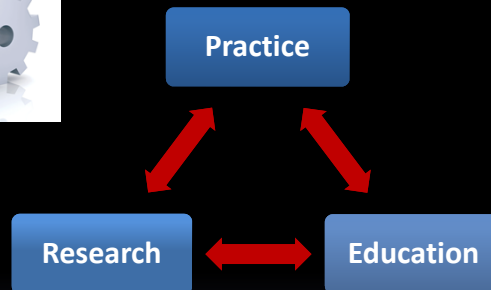
American Association of Colleges of Nursing (AACN), 1990, 1997;
Bleich et al. J Prof Nurs 2004; Fralic J Prof Nurs 2004;
De Geest et al. J Nurs Scholarship 2010; De Geest et al. Nurs Outlook 2013



Academics & clinicians join forces!



Academic service partnership



Structured linkages between academic-service entities have demonstrated higher levels of innovation

Institute of Medicine (IOM), 2003

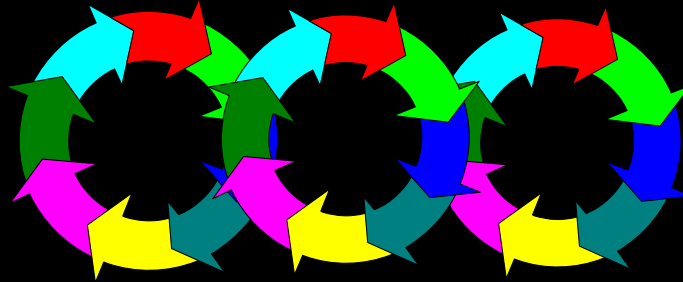
TRANSIT: what is it?



To improve long-term transplant patient outcomes



TRANSIT: how are we doing it?



Action learning

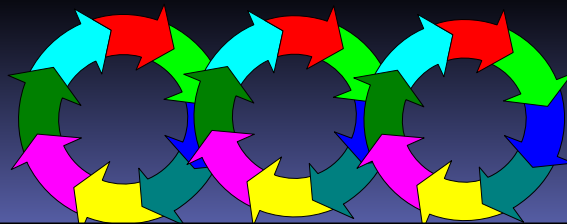
“an educational process whereby people work and learn together by tackling real issues and reflecting on their actions”

- ▶ work shadowing during outpatient clinic visits
- ▶ self-reflection / group reflection
- ▶ evaluation during TRANSIT meetings

http://en.wikipedia.org/wiki/Action_learning

Motivational Interviewing (MI)

- Training of TRANSIT members in MI principles and other behavioral interventions by researchers
- Implementation into clinical practice in daily clinical practice of outpatient clinics by APNs and specialized nurses



Michie's Behavioral Change Techniques Taxonomy (V1)

The Behavior Change Technique Taxonomy (v1) of 93 Hierarchically Clustered Techniques: Building an International Consensus for the Reporting of Behavior Change Interventions

Susan Michie, DPhil, CPsychol • Michelle Richardson, PhD • Marie Johnston, PhD, CPsychol • Charles Abraham, DPhil, CPsychol • Jill Francis, PhD, CPsychol • Wendy Hardeman, PhD • Martin P. Eccles, MD • James Cane, PhD • Caroline E. Wood, PhD

© The Society of Behavioral Medicine 2013

Michie, et al. Ann. behav. Med. 2013

Lessons learned

- Academic Service Partnerships are the way forward
- The Maestro Tx study provided evidence how to improve medication adherence in transplantation
- Scaling-up the learned lessons from this trial requires a system approach involving *innovators in the system*, i.e. APNs
- Scaling up can only be evaluated if a continuous registration system with relevant parameters is available
- Principles of implementation science will allow process and outcome evaluation of system change in future