Knowledge Mastery…Improving Patient Outcomes

Knowledge Translation:
What It Is and Isn't

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Knowledge Translation

- **the exchange, synthesis and ethically sound application of knowledge**
- **within a complex system of interactions among researchers and users-**
- **to accelerate the capture of the benefits**

Canadian Institutes of Health Research. Knowledge translation framework. www.cihr-irsc.gc.ca/about_cihr/organization/knowledge_translation/kt_framework_prelim_e_shtml#definition

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Knowledge Translation

According to Szeben (2003),

"… deliberate means where information is diffused with an implementation stratagem to ensure that information is reaching a desired population and subsequently being used in current practices" (p 134)

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Knowledge Translation

…scientific study of the methods for closing the knowledge-to-practice gap, and the analysis of barriers and facilitators inherent in this process.

Straus, S. & Mazmanian, P. (2006) Knowledge translation: Resolving the confusion. Journal of Continuing Education in the Health Professions 26(1) 3-4.

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Is knowledge translation really needed?

*J*ournal of
    *A*ssociated
       *S*core of
          *P*ersonal
            *A*ngst

BMJ 1995;311:1666-1668 (23 December)

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- Ambivalent about renewing your **J**ournal subscriptions?
- Do you feel **A**nger toward prolific authors?
- Do you ever use journals to help you **S**leep?
- Are you surrounded by piles of **P**eriodicals?
- Do you feel **A**nxious when your journals arrive?

BMJ 1995;311:1666-1668 (23 December)

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Delays of Evidence into Practice

● James Lind (1716 – 1794)

● James Lancaster (1551)

Data published 1754
40 years later……….

Delays of Evidence into Practice

Ignatz Semmelweis
1846 puerperal fever

Mortality rate 18% to 1.2%

That Was Then…..
What About Now?

A recent survey with a random sample of 1097 registered nurses in the U.S. indicated that:

● Besides time, the greatest personal barrier in using information in practice was "lack of value for research"

● The greatest organizational barrier to using information in practice was "presence of other goals with a high priority"

Source: Pravikoff, Pierce, & Tanner (2005). Nursing Outlook, 53 (1), 49-50

Conclusion from the AAN Expert Panel Study

RNs in the United States aren't ready for evidence-based practice
- information literacy
- computer skills
- limited access to high quality information resources
- attitudes toward research

Pravikoff, Pierce, & Tanner (2005). Nursing Outlook, 53 (1), p.50

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Readiness of US Nurses for EBP (Pravikoff et. al, AJN, 2005)

Stratified random sample of 3,000 nurses (37% response rate; 51% ADN/Diploma)

Reported Findings

- 39% reported needing info to support care seldom or 1-2X month
- 58% never used a research report
- 82% never used a hospital library

- 57% had a library
- 77% had never had instruction in electronic searches
- 19% confident in using CINAHL; 36% Medline

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Research is of little value unless the findings are used in practice to improve care (Schultz, 2006)

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Is KT really really needed?

Problems for decision-makers

Volume of scientific findings

Complexity of design

Choi, B. (2005) Understanding basic principles of knowledge translation. J Epidemiol. Community Health. 59: 93
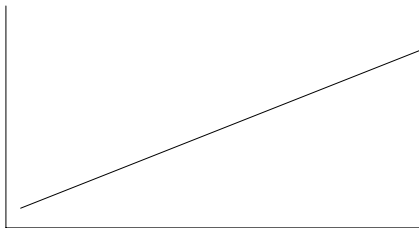

Cochrane Database of Systematic Reviews

http://www.cochrane.org/reviews/impact/cdsrpubgraph1995present.htm
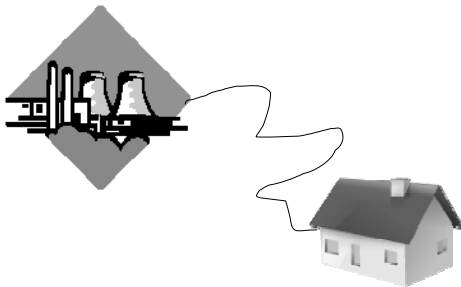

Integration and Simplification

Choi, B. (2005) Understanding basic principles of knowledge translation. J Epidemiol. Community Health. 59: 93

Smoking makes you ugly

World Health Organization

http://www.who.int/kms/en/

Knowledge Management

Focus : National Policy Makers, WHO
Programs and Health Professionals

● Improve access to world's health information
● Translate knowledge into policy and action
● Leverage eHealth in countries

Santesso et al (2006) Knowledge transfer to clinicians and
consumers by the Cochrane Musculoskeletal Group. The
Journal of Rheumatology 33:11

● From blobbogram

Relative Risk

Number out of 100
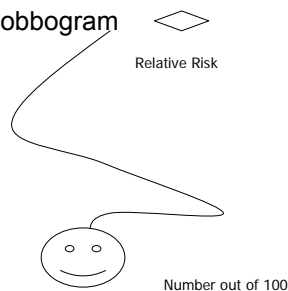
Santesso et al (2006) Knowledge transfer to clinicians and consumers by the Cochrane Musculoskeletal Group. The Journal of Rheumatology 33:11

Plain Language Summaries

1 min

5 min

15 min

Knowledge Translation Program

Faculty of Medicine - University of Toronto

Founded 2000
Mission:
Develop, test, and implement evidence-based knowledge translation strategies and to bridge the gap between research evidence and practice.
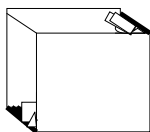

The BLACK Box

Cochrane Effective Practice and Organisation of Care Group
http://www.epoc.cochrane.org/en/index.html

Do I Know What I Do?
Do I Do What I Know?

Study	1	2	3C	4C	5	6C	7C	8C
Academic detailing	+	+				+		
Audit and feedback	Min	Min	Mod	Mod	+ss			
Reminder systems	Mod	Mod		+				
Local opinion leaders	+	+					+ss	
Printed materials	0	0						0

Summary of supportive evidence used by Trowbridge & Weingarten Chapter 54 of AHRQ Report

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A few words about…

Beliefs

Nurses' Perceived Knowledge, Beliefs, Skills, and Needs Regarding EBP: Implications for Accelerating the Paradigm Shift

Melnyk, Fineout-Overholt, Feinstein, Li, Small, Wilcox, Kraus (2004) Nurses' Perceived Knowledge, Beliefs, Skills, and Needs Regarding EBP: Implications for Accelerating the Paradigm Shift Worldviews on Evidence-based Nursing 1(3):185-193

Findings: Correlations among beliefs, knowledge and EBP

Nurses held strong beliefs that EBP would improve clinical care and patient outcomes (r=.32' p=.000).

Knowledge (r = 42; p=.000) and beliefs (r = .4; p = .000) about EBP are related to the extent that nurses engage in EBP.

The extent to which nurses' practices were evidence based were correlated with having a mentor that facilitates EBP (r = .21; p =.05)
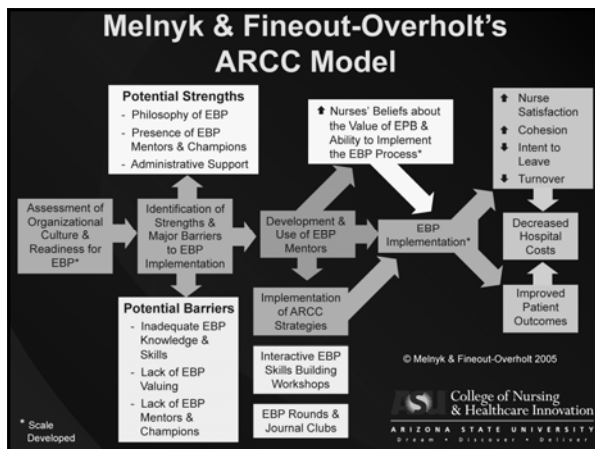
Pilot Testing of the ARCC Model

Unpublished data Rona F. Levin, PhD, RN, Paula Scharf Kohn, PhD, RN Lienhard School of Nursing; MaryJo Vetter, MS, RN, NPC Visiting Nurse Service of New York; Bernadette M. Melnyk, PhD, RN, CPNP/NPP, FAAN, FNAP Arizona State University (ASU) College of Nursing Ellen Fineout-Overholt, PhD, RN ASU College of Nursing; Michael Barnes, Assoc. Prof., Clinical Psychology, Hofstra University, New York

Fostering EBP in a Community Health Setting

- Major findings:
  - ❖ Nurses in the 16 week ARCC intervention program, compared to comparison intervention nurses, had significantly higher beliefs about EBP; higher EBP implementation, and increased group cohesion
- Preliminary support of the ARCC model
  - ❖ Knowledge alone does not change nurses beliefs about EBP
  - ❖ Mentoring and immersion in EBP is essential to facilitate and maintain attitude change

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Translating clinicians' beliefs into implementation interventions (TRACII): a protocol for an intervention modeling experiment to change clinicians' intentions to implement evidence-based practice
Eccles, Johnston, Hrisos, Francis, Grimshaw, Steen & Kaner (2007) Implementation Science 2007, 2:27

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Knowledge Translation

Healthcare systems and individuals adapt and apply best clinical evidence

OUTCOME: patient (individual, family, community, population) is the ultimate recipient of benefits related to closing the gap between evidence and practice

(Davis, D. 2006. Continuing education, guideline implementation, and the emerging transdisciplinary field of knowledge translation. J of Con education in Health Professions 26: 5-12)
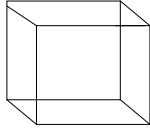
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