JBI Model for Engaged KT

...a health service delivery perspective
Discussion point:

• Pre-HDR study:
  • What was your experience with getting research into:
    • Circulation as accessible knowledge?
  • What have you seen that worked and what hasn’t?
  • What other factors have contributed in the success (or failure?)
The evidence landscape circa 1996

Specialist adaptations required for navigation!
The evidence landscape circa 2016

1. *Wellness Blogger*
2. *Celebrity*
   - Personal anecdote from your cousin’s, best mates, brother’s girlfriend
3. *Dr Google*
4. *Info commercial*
   - Personal testimony of a stranger overheard on public transport
5. *‘Health Professional’ newly graduated from a 12 week online course*
6. *Highly educated individual with university degrees in something totally unrelated to health/nutrition i.e. Law, Journalism, Aerodynamics*
7. *N=1 studies*
JBI History

• Established in 1996 at the Royal Adelaide Hospital, South Australia
• Named after the first Matron of the Hospital
• In 2010 became part of the University of Adelaide
• Comprises of an international collaboration of health scientists, health professionals and health researchers committed to ‘Best Practice.’
JBI Vision

A world in which the best available evidence is used to inform policy and practice to improve health in communities globally.
JBI Mission

To facilitate the synthesis, transfer and implementation of the best available evidence to ensure the feasibility, appropriateness, meaningfulness and effectiveness of health policy and practice.
JBI Model of Evidence Informed Healthcare

Global Health

Evidence Based Healthcare
Feasible
Appropriate
Meaningful
Effective

Evidence Transfer

Evidence Synthesis

Evidence Implementation

Overarching principles
Culture - Capacity - Communication - Collaboration
Collaboration & Engagement

Membership
- Educational
- Individual
- All of Country
- Health Care Provider

Evidence Synthesis
Evidence Implementation

JBI Centres of Excellence
JBI Affiliated Groups

Synthesis  Transfer  Implementation

The Joanna Briggs Institute

GLOBAL REACH
PROGRAMS
CENTRES

www.joannabriggs.org
Why Implementation Science?
A move toward more precise and informed knowledge.
Implementation in JBI

• Evidence-based approach to 'best practice'
• Focuses on advanced education and training via practical approaches to identifying and using clinical evidence in healthcare
• Designed for motivated, clinically-focused professionals.
Implementation in JBI

• Implementing evidence into practice and evidence utilization requires change agents skilled in identifying barriers to change, and

• Implementation requires...
  – Processes for change
  – Strategies for evidence utilization
  – Reliable methods of evaluation
JBI Approach

1. Clinical Fellowship Program
2. Clinical Leadership Program
3. Endorsement of health care facilities

• Evidence informed education and training
• Topics specific to the needs of professionals in the healthcare professions in their workplace/space
• Facilitation is embedded throughout each program for each phase of their study,
• Support to publish, present and disseminate is also built in
JBI Conceptualisation of Implementation

- Analysis of Context
- Facilitation of Change
- Evaluation of Processes and Outcomes
- The JBI approach is targeted toward health professionals.
- ...It’s pragmatic rather than intent on precision of effect sizes...

Evidence Implementation:
A purposeful and enabling set of activities designed to engage key stakeholders with research evidence to inform decision-making and generate sustained improvement in the quality of healthcare delivery.
Do research $ make the difference?
The Safer Patients Initiative programme

The Health Foundation selected four hospitals (table 1), one in each country of the United Kingdom, to participate in the first phase of SPI (SPI1). The Health Foundation (a British charity dedicated to improving the quality of healthcare) invested £775 000 (£900 000, $1.2m) in each hospital. SPI1 ran from January 2005 to September 2006 inclusive and was intended to embed and spread thereafter. The Health Foundation issued a request for applications to conduct an independent evaluation of the SPI1 intervention. We report on the results of this evaluation.

- From each hospital, 15-20 “change agents” participated in four learning sessions
- hospitals received site visits and technical assistance....

Conclusions The introduction of SPI1 was associated with improvements in one of the types of clinical process studied (monitoring of vital signs) and one measure of staff perceptions of organisational climate. There was no additional effect of SPI1 on other targeted issues nor on other measures of generic organisational strengthening.

*BMJ* 2011; 342 doi: http://dx.doi.org/10.1136/bmj.d195 (Published 03 February 2011)
Cite this as: *BMJ* 2011;342:d195
In general...

To date, many organisational responses to poor implementation have failed to achieve optimal care despite considerable investments. Most approaches to changing clinical practice are more often based on beliefs than on scientific evidence. ‘Evidence based medicine should be complemented by evidence based implementation’

KISS...but use precautions...

- Equip (transfer): skill, knowledge & resources
- Enable: practitioners as change agents
- Avoid...Maslow's law...
Factors influence effectiveness of audit and feedback

- Larger effects were seen if:
  - baseline compliance was low.
  - the source was a supervisor or colleague
  - it was provided more than once
  - it was delivered in both verbal and written formats
  - it included both explicit targets and an action plan

Ivers N et al. Audit and feedback: effects on professional practice and health care outcomes. Cochrane Library 2012
1. System / organizational readiness for change

2. Behavioral practice change (e.g. in how health workers deliver care...it may also include / require changes in how patients behave).

3. Evaluation (evaluating current practice and the impact of evidence utilization / practice change)
1st key element of evidence implementation

• System / organizational readiness for change
  – Decentralised
  – Change ready
  – Measurement focused

  – Effective leadership, clinical champions, financial and edu resource commitments, dedicated promotional/awareness activities
Global Literature: 3MT Style

- Local Health Service partnering with Universities promotes implementation studies
  - Non-partnering leads to passive dissemination
  - Partnering enhances co-creation
  - Distributed leadership promotes increased engagement
  - Cross boundary roles enhances project profile and impact
Global Literature: 3MT Style

– Academic-practice divides cause silo’ed activity
– Inter-professional learning only occurs when it is deliberately included in the evaluation process
• Linear upscaling is rhetoric, rarely occurs in practice and attempts generally fail
• Upscaling does work though, it requires...
Global Literature: 3MT Style

– Planning for upscaling from project conceptualisation
– Commencing with small pilot
– Testing the expansion scope while evaluating
– Rapidly going full scale informed by evaluation data
Global Literature: 3MT Style

• Longitudinal studies suggest social networking for KT increases collaboration,
  – Fosters inter-professional collaboration, but
  – Is top heavy rather than a ground up approach...
  • What do you think this means in practice?
Global Literature: 3MT Style

- Organisational readiness for change is usually based on anecdotal evidence, or invalid instruments
  - [qualitative descriptive evaluation is okay]
Global Literature: 3MT Style

• And yet...

• Organisational context is increasing the focus of attention by academics puzzled by the health sector. Some have even suggested:
  – Implementation is complex and messy

• Variance has been measured, everying you can think of is a variable influencing individuals, units, and facilities, however...
Global Literature: 3MT Style

• Individual characteristics including English as first language, job efficacy, belief suspension, intent to use research, knowledge and number of information sources positively correlate with use of EBHC,

• Unit predictors include the presence of feedback (evaluation) mechanisms, structural resources and (don’t laugh) organised down time

• Facility itself was not an influential factor....
Global Literature: 3MT Style

• Which might be why everyone thinks facilitation is the key, it:
  • Stimulates higher order learning
  • Allows for small scale implementation tied to evaluation
  • Is a learning mechanism in and of itself.
2nd key element of evidence utilization

- Behavioral practice change (e.g. in how nurses, doctors and other health workers deliver care...it may also include / require changes in how patients behave).
  - Defined by a transfer away from the ‘rational actor’ model of practice change
Global Literature: 3MT Style

• The individual barriers to uptake of newly learned work practices include:
  – employee skills, self-perceived competence to adopt new practices and motivation to adopt change
  – lack of personal belief and autonomous commitment to the change, rejection of imposed change

Williams, 2016: A cluster-randomised controlled trial of values-based training to promote autonomously held recovery values in mental health workers
# Barriers to behaviour change

(n=120) cross sectional study results

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Cognitions</td>
<td>See no complications</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No hard evidence</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>Attitudes</td>
<td>Irritation of hands</td>
<td>81%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Costs too much time</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Routines</td>
<td>Forgot during rush</td>
<td>65%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Falling in to old routines</td>
<td>49%</td>
</tr>
<tr>
<td>Organisational</td>
<td>Leadership</td>
<td>Nobody controls</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manager not interested</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>Organisation</td>
<td>Not feasible in the process</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No protocol/guideline</td>
<td>49%</td>
</tr>
<tr>
<td></td>
<td>resources</td>
<td>Sinks/soaps/rub</td>
<td>42%</td>
</tr>
</tbody>
</table>
3rd key element of evidence utilization

- Evaluation (evaluating current practice and the impact of evidence utilization / practice change)
Global Literature: 3MT Style

• modified grounded theory study on experiences with clinical audit:
  – fragmented and variable in its effectiveness
  – Clinicians are disconnected from the process
  – Insufficient transparency
  – Feedback often untimely, incomplete, not actionable

Sinuff, 2016: A qualitative study of the variable effects of audit and feedback in the ICU
Global Literature: 3MT Style

• How could Audit and Feedback be improved:
  – improve information sharing about the rationale for change and the audit process, tools and metrics; implementing peer-to-peer quality discussions to avoid a top-down approach (eg, incorporating feedback)
  – improve communication, integration of the process into daily clinical activities and making feedback timely, specific and actionable.
Global Literature: 3MT Style

• Local Health Service partnering with Universities promotes implementation studies
  – Non-partnering leads to passive dissemination
  – Partnering enhances co-creation
  – Distributed leadership promotes increased engagement
  – Cross boundary roles enhances project profile and impact
Global Literature: 3MT Style

– Academic-practice divides cause silo’ed activity
– Inter-professional learning only occurs when it is deliberately included in the evaluation process

• Upscaling is rhetoric, rarely occurs in practice and attempts generally fail
• Upscaling requires...
Global Literature: 3MT Style

– Planning for upscaling from project conceptualisation
– Commencing with small pilot
– Testing the expansion scope while evaluating
– Rapidly going full scale informed by evaluation data in phase 3
Global Literature: 3MT Style

• Longitudinal studies suggest social networking for KT increases collaboration,
  – Fosters inter-professional collaboration, and
  – Is top heavy rather than a ground up approach

• Organisational readiness for change is usually based on anecdotal evidence, or instruments that have not been validated
Global Literature: 3MT Style

• And yet...

• Organisational context is increasing the focus of attention by academics puzzled by the health sector. Some have even suggested:
  – Implementation is complex and messy

• Variance has been measured, everying you can think of is a variable influencing individuals, units, and facilities, however...
Global Literature: 3MT Style

• English as first language, job efficacy, belief suspension, intent to use research, knowledge and number of information sources positively correlate with individual use of EBHC,

• Unit predictors include the presence of feedback (evaluation) mechanisms, structural resources and (don’t laugh) organised down time

• Facility was not an influential factor....
Global Literature: 3MT Style

• Which might be why everyone thinks facilitation is the key, it:
  – Stimulates higher order learning
  – Allows for small scale implementation tied to evaluation
  – Is a learning mechanism in and of itself.
Closing the loop
Evidence Based Healthcare

• Five steps to EBHC
  – Searching
  – Appraising
  – Embedding
  – Utilising
  – Evaluating

• JBI programs & resources follow these five steps
Case Study 1 - evaluation

• Nursing care of transradial angiography patients achieved:
  – Rates of written discharge instructions and radial artery patency assessment at the first post-procedure from 0% to 100%.
  – Pre-procedural checklists including adequate criteria reached 78%, up from 0%.
  – Regular monitoring of vital signs recorded for the first two hours post-procedure reached 22% from 0%.

DOI: 10.11124/JBISRIR-2016-002509
Case study 2 - Evaluation

- Discharge planning for heart failure patients in a tertiary hospital:
  - completion of a discharge checklist (from 0% to 100% compliance),
  - comprehensive (i.e. inclusion of six topics for self-care) discharge education for patients (from 7% to 100% compliance), and
  - conducting a telephone follow-up (from 0% to 76% compliance)

- doi: 10.11124/jbisrir-2016-2510
The effectiveness of moisturizers in the management of burn scars following burn injury: a systematic review

Tanja Klotz
Rochelle Kurmis
Zachary Munn
Kathryn Heath
John E Greenwood

1 Adult Burns Service, Royal Adelaide Hospital, Adelaide, Australia
2 The Joanna Briggs Institute, Faculty of Health Sciences, The University of Adelaide
Preoperative fasting among burns patients in an acute care setting: a best practice implementation project

Sara Giuliani¹
Alexa McArthur²
John Greenwood³

1. Surgical Specialties, Clinical Dietetics, Royal Adelaide Hospital, Australia
2. Joanna Briggs Institute, Faculty of Health Sciences, University of Adelaide
3. Adult Burn Service, Royal Adelaide Hospital, Australia
Point of Care Impact

• Education on evidence-based fasting guidelines was delivered to 54% of staff.
• 19% improvement in compliance with fasting documentation.
• 52% increase in adherence to appropriate evidence-based instructions.
• A notable shift to "fast from 03:00 hours", with an overall four-hour reduction in fasting per theater admission.
Impact on practice: Conclusions

• These results demonstrate education improves compliance with:
  – documentation
  – preoperative fasting

• Collaboration with key stakeholders and a hospital wide fasting protocol is warranted to sustain change and further advance compliance with evidence-based practice at an unit level.
Further reading

– Estabrooks et al, JAMDA, 16 (2015)
– Gagnon et al, PLOS ONE, Dec 4, 2014
– Long et al, Implementation Science (2106) 11:19