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CONFERENCE REVIEW

Knowledge translation in health seminar – “Knowledge translation in health: what it is and how to do it” Melbourne on 11 March 2010.

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This seminar promised to “draw on the experiences of both international and national knowledge translation experts to provide information on what knowledge translation is and how to do it.” Certainly the collection of organisations involved in developing the seminar suggested that this goal could be met. These were: The Cochrane Collaboration, Monash University, the National Trauma Research Institute and the National Institute of Clinical Studies which has recently become part of the National Health and Medical Research Council, all of which are highly regarded in their respective fields.

The headline international speakers were Dr Jeremy Grimshaw (Canada) and Professor Susan Michie (UK). Local speakers included Professor Russell Gruen, Trauma Surgeon at the Alfred Hospital, Professor of Surgery and Public Health at Monash University and Director of the National Trauma Research Institute, Professor Sally Green, Director of the Australasian Cochrane Centre, and Dr Tari Turner, Senior Research Fellow, National Trauma Research Institute.

The premise of the seminar is that failure to use research evidence in decision making is evident across all decision-making groups in health including healthcare providers, patients, informal carers, managers and policy-makers and that knowledge translation (KT) is gaining international recognition as a way to close this knowledge to action gap.

After the welcome by Professor Gruen, the first speaker of the seminar was Professor Sally Green. She succinctly described the KT problem as the “know-do gap” and linked this to a newspaper column written by Stephen Woolf and published in the *Washington Post* newspaper 2006. The column was titled “*All breakthrough, no follow through*” and describes exactly this problem: that patients frequently don’t receive new, better, or even effective treatments. See this article at:

<http://www.washingtonpost.com/wpdyn/content/article/2006/01/06/AR2006010602269.html>.

Green contends that research that should change practice is often ignored, takes a long time to be taken up, or when taken up are poorly implemented. She also identified a problem for the enterprise of KT, namely that of inconsistent nomenclature. A standardised terminology would assist with understanding and data searching.

The second aspect of her presentation was her “Rainbow model” of Knowledge Transfer and Exchange (note the different terminology!). This model identifies seven aspects for effective KT:

1. Identifying important questions;
2. Generate and synthesise knowledge instead of creating a deluge of single studies;
3. Improving access to this knowledge;
4. Identify and refine the problems, understanding policy and practice context;
5. Develop interventions underpinned by theory to change policy, practice and evaluation;
6. Apply strategies to sustain policy and practice change (evaluation being as important as the research);
7. Build the infrastructure of KTE, and creating an accepted culture of evidence use.

For novices to the world of KT, this first session provided a brief but useful framework for understanding KT and its related problems.

The subsequent session was presented by Dr Tari Turner from the National Trauma Research Institute. Her session dealt with the question of the use of whether syntheses and guidelines could help to bridge the know-do gap. In essence she posed three questions:

1. Can syntheses and guidelines help to bridge the gap;
2. Are they closing the gap;
3. What are the barriers to syntheses and guidelines in closing the gap?

Turner took as a case study the Evidence Aid which was launched by the Cochrane Collaboration in response to the 2004 Asian tsunami. This project aims to provide structured summaries of Cochrane reviews to be used in response to disasters. This project was evaluated and the key findings were:

- Evidence aid was a good idea, but was not used in practice;
- There was a clear unmet need to this sort of information;
- Expansion to include information systems was needed;
- Greater collaboration between the Cochrane Collaboration and humanitarian organisations was needed to make the evidence more useful and useable.

Turner then examined the barriers to KT. These essentially boiled down to three Rs: Relevance, Resources and Relationships. Difficulties for relevance were identified as: lack of relevant research, poor focus on health service and health service delivery research, and poor descriptions of the context in which original research was undertaken, making assessment of its generalisability difficult. The question of resources came to down to the question “What is the *best* use of scarce resources: development of guidelines, access to guidelines or implementation of guidelines?” The question of relationships was described as difficulties between interested groups: researchers, clinicians, managers and also to personal relationships within and between these groups.

Turner also briefly discussed the difficulties that health service managers identified in using evidence to guide decision making: there is no evidence, if there is evidence they can’t find it, if they can find it they can’t understand it. Her suggested (partial) remedy was pragmatic guideline development involving adequate description of the detailed context of the original

research, investment in building evidence based practice capacity, and for communities of interest to connect and reconnect to build networks and collective capacity.

The third speaker in the morning session was Susan Michie, Professor of health psychology at University College London. Professor Michie spoke in some detail about the role of behavioural theory in knowledge transfer. In essence her argument is that Kt is completely dependent upon the behaviour of those involved in the KT enterprise, and that to improve KT requires a change in behaviour. From this starting point Michie discussed at length questions relating to “How does behaviour change?”, “What is theory?”, and “Which theory should one use?” Michie’s presentation meandered somewhat, and suffered in comparison to the pertinent and concise presentations given by the previous speakers.

Ms Sue Brennan from the Australasian Cochrane Centre gave an energetic presentation on improving organisational effectiveness. She focussed on the use of organisational theory to achieve KT, although she prefers the term “quality of care” to KT – the nomenclature bogey rises again! Brennan’s presentation focussed on the structures, systems and processes that enable teams and individuals to deliver optimal care. While this goal is laudable, I was left wondering about the equally important questions of how we prevent sub-optimal care or at least ensuring adequate or acceptable care. Unfortunately, these aspects of KT to patient care were unaddressed.

Later, the other international speaker Professor Jeremy Grimshaw, Director of the Clinical Epidemiology Program at the Ottawa Health Research Institute in Canada addressed the key question of “Knowledge transfer interventions: what works?” Grimshaw identified four key requirements to answer these questions:

1. A causal description. Did the intervention lead to improved knowledge?
2. A causal explanation. Did the strategy work?
3. Understanding of context modifiers; contexts, groups, individuals
4. Economic evaluation. What did it cost and was it worth it?

Grimshaw argues that, as a consequence that a multi-methods approach is needed to answer these questions, and that many evaluations of KT omit some or all of these questions. He further argues that individual KT studies rarely provide sufficient evidence to support policy and practice changes, and that due to poor design may be misleading. Consequently they need to be evaluated against the totality of relevant knowledge and that systematic reviews and syntheses are needed to avoid the identified pitfalls. He cautioned however that systematic reviews cannot overcome weaknesses in the primary studies and that greater rigor is needed when planning such studies.

Professor James Best, Head of School in the Faculty of Medicine, Dentistry and Health Sciences at the University of Melbourne and chair of the National health and Medical Research Council’s (NH&MRC) Research Committee spoke about where KT is heading. Interestingly, he prefers to think of the process as “knowledge exchange”. Professor Best outlined where the NH&MRC viewed the role of KT research in the past and where it might fit in future. The session would have been of particular interest to established researchers seeking funding in future, but seemed to have limited use to many of those present at the seminar.

The late afternoon presentations were a series of case studies of KT. The quality and interest of these presentations was variable and some were criticised by the expert panel in the feedback session afterwards.

The seminar was interesting and worthwhile. The morning presenters were generally of higher calibre than the afternoon presenters. Interestingly, for an evidence based symposium, all presenters begged the question of the “know-do gap”, all arrested its existence, with none providing convincing evidence that such a gap exists. Perhaps this is evidence in its own right of the “know-do gap”.