

A Thai-Australian Rural Health Service Management and Medical Education Study Tour: workplace changes after a year

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Abstract

Background: Knowledge translation is a global issue. There have been limited studies to assess the impact of cross-cultural exchanges in health service management in developing countries.

Aim: To determine the impact (on rural Thailand health services) of a Thai-Australian health service management and medical education educational study tour conducted in Australia.

Methods: Six senior doctors from rural northern Thai hospitals visited Australia. An immediate post study questionnaire evaluation based on study tour aims was followed by semi-structured interviews conducted 12 months later that focused on knowledge acquisition and changes in practice. Six Thai doctors were interviewed but only five transcripts were returned. Lack of time was cited as the reason for the non-respondent. The authors conducted a thematic and content analysis of transcripts.

Results: The evaluation showed that the study was universally valued by the participants. The twelve-month post study evaluation indicated that acquisition of new knowledge was universal amongst the group, particularly about the Australian healthcare system and programs to recruit and retain rural doctors. This knowledge was transferred to authorities that were considered to have the power to change policy.

The ability of participants to implement changes in their local work environments was varied. A few participants implemented some management changes at the local level. This focused mainly on medical education. Other participants recognised that they lacked authority to make management changes.

A barrier to the implementation of many proposed changes was the lack of authority and/or organisational support to influence the development of new policy. The importance of organisational support was identified by the participants as important to the pre-planning and selection of teams for future programs.

Conclusion: Participants value interactive educational teaching methods. Educational organisations supporting such programs need to clarify their objectives, resource and empower participants adequately on their return to optimise the lessons learnt from cross-cultural exchanges in health service management.

Abbreviations: ACHSE – Australian College of Health Service Executives; ACRRM – Australian College of Rural and Remote Medicine; ACHCS – Australian Council of Healthcare Standards; CPG – Clinical Practice Guidelines; GP – General Practitioner; OPD – Out-Patient Department; RACGP – Royal Australian College of General Practitioners.

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Introduction

Knowledge translation in healthcare is a global issue. According to Davis, Ciurea, Flanagan and Perrier [1] 'The gap between what doctors might do based on evidence-based clinical practice guidelines (CPGs) and what they actually do is wide, variable and growing'. It is a major health management issue [2] as limited dissemination of new information can limit improvements in health outcomes. This is particularly true in developing countries where there is a lack of research evidence as to what interventions are effective in changing

health professional practice, along with a shortage of health professionals and resources. [3] A useful framework for assessing knowledge translation is the Ottawa Model of Research Use which analyses the local environment and identifies adaptive factors and barriers to the implementation of innovation. This model has been promoted as a useful basis for research in this field in developing countries. [4,5]

Paradoxically, globalisation of the world economy [6] has corresponded in an expansion of international medical education including health professional education exchanges. The important rationale for cross-cultural educational exchanges focuses on learning to acquire and transfer knowledge. [7] However, to date there is limited data as to the effectiveness of these interventions in healthcare. [3,8] Knowledge translation in cross-cultural exchanges in the information technology industry found a complex interaction between the value of learning discerned by the individual and opportunities for the application of that learning in the work environment. [9]

Most nations face a shortage of health professionals prepared to work in rural areas with a disproportionate concentration of health professionals working in urban centres. [10] The world's medical workforce is global and migratory. Doctors and medical students are older and more likely to be female. This changing demographic means that there are less full time equivalent doctors available to provide clinical services (as many will retire earlier or combine work with family needs). [10] In many countries doctors also play key roles in the management of health services. [11]

A Thai-Australian Alliance focusing on capacity building in rural health service management and medical education was formed in 2004 to foster cross-cultural collaboration and knowledge transfer in these fields. [12] We asked the research question: 'Is there long-term impact from international cross-cultural healthcare exchanges for practising rural Thai health professionals?'

This paper describes the impact and outcomes of a cross-cultural exchange in health service management and medical education between rural Thai doctors and Australian health professionals, immediate post study and after one year.

Methods

Study tour development

In December 2004, a high level Thai delegation, including members of Naresuan University Faculties of Medicine and Public Health and the Thai Ministry of Public Health, visited north western NSW to better understand the Australian healthcare system and to study methods of delivering rural

medical education in small rural centres. In June 2005, two Australian academics presented health service management and rural medical education papers at seminars at Naresuan University. These developments are described in-depth elsewhere. [12]

A professional development study program was negotiated as the next step for the collaboration and was organised by the School of Health, University of New England, Australia in conjunction with local healthcare providers and Naresuan University, Thailand. From November 18 to December 3 2005, a delegation of six senior Thai doctors based in Northern Thai hospitals visited Australia. The group comprised four men and two women. They worked as middle level managers in health service administration, clinical medicine and medical education. The doctors were asked to volunteer for the study tour and were selected from hospitals that were developing as clinical training sites of the medical program of Naresuan University (with one hospital accepted for medical student placements already). They were accompanied by two senior Naresuan University professors (both male). However, one professor left the program earlier as he had another important commitment in Thailand.

The study tour commenced with a networking opportunity through a formal function organised by the Australian College of Health Service Executives (ACHSE), with representatives from the Australian College of Remote and Rural Medicine (ACRRM), the Royal Australian College of General Practitioners (RACGP), and the Australian Council of Healthcare Standards (ACHCS) on November 18 2005. The participants then attended a two-week professional development study tour that included: a train the trainer course in medical education; theoretical presentations in both health service management and medical education; and experiential visits to a range of health services in north western and the north coast of NSW.

The study tour's aims were agreed jointly between the faculty of the two universities and the participants. These aims were to:

- Gain an understanding of Australian approaches to the organisation, management and delivery of rural health services;
- Develop knowledge and identify best practices in the Australian context for the education and professional development of the rural health workforce and practices that will lead to improved recruitment and retention of that workforce;

- Identify current Australian approaches to determining rural populations at risk and specific rural health workforce and service delivery issues;
- Develop an understanding of rural health status and needs; and
- To differentiate service delivery issues in terms of access, equity, rurality and remoteness.

A variety of adult learning teaching methods were used to deliver this course, including lectures, small group learning, simulation, role-play, field visits and case presentations. These were used to generate interest and self and group reflection. [13] The Thai group met to discuss the main learning outcomes at the end of each day of the study tour.

Evaluation

The study tour was evaluated using a questionnaire at the conclusion of the study tour period. Participants were asked about the most valuable areas of learning and areas for improvement and was linked to study tour aims and learning goals. The group presented their findings on the final day of the course to a group of the Australian lecturers, general practice registrars and medical educators. The immediate post study tour evaluation was followed one year later by semi-structured interviews of the participants conducted in Thai. The interviews focused on knowledge acquisition and the translation and implementation of this knowledge into practice. It explored factors associated with successful workplace change and barriers to proposed change. The interview approach was adapted from the work of Fox, Mazmanian and Putnam who explored knowledge translation in practice by conducting a series of interviews with physicians about reasons for workplace changes in their clinical practice in Canada. [14] We pretested the semi-structured interview schedule amongst the research team and with other researchers. Questions were asked about what changes health professionals had considered. They were asked to rate how effective they were in making changes and to assess barriers and facilitators in the local environment to implementing change.

This evaluation framework was selected, as Fox et al (in our opinion) was a seminal study in knowledge translation and was used as the basis for the development of knowledge translation research by Davis in Canada. [13] To our knowledge, this is the first time this evaluation framework has been used in developing countries. Additionally, the approach used by Fox et al is consistent with the Ottawa Framework of Research Use. [4] This methodology was used as it meant that standardised semi-structured interviews

could be administered by a research assistant. While a case study design with in-depth interviews would have provided more detail, we lacked the resources to implement this form of research as the research assistant would have required more extensive training in in-depth qualitative interviewing. Work commitments of participants meant they were unlikely to be able to participate in a more extensive evaluation.

Transcribed interviews were translated into English and approved by the Thai study tour participants. Thematic and content analysis was used with independent validation of results amongst the research team. Research approval was obtained from the University of New England Human Research Ethics Committee.

Results

Evaluation at conclusion of course

At the conclusion of the course all participants (n = 7, including the remaining senior Thai academic) agreed that the study tour was beneficial to their understanding of: the Australian healthcare system; health management concepts and practices; and rural medical education concepts and practices.

Participants were asked to nominate which presentations/visits were the most appropriate, relevant and useful to them. Responses in rank order included: the Australian healthcare system; adult learning and teaching practical skills; rural medical education; health service management; visiting hospitals, surgeries and a public health unit.

These factors were considered relevant as they had the potential to be applied to the participant's work in Thailand as reflected by the following statements made by two participants:

I can apply this information and skills for my career and in my work.

I can apply what I have learnt in my hospital and in my community practice.

One participant felt a visit to the private hospital was not relevant to them as '*(I) can't apply within Thai health system!*'. This response can be contrasted with one of the senior Thai academics in the group who commented that he would like to further explore public/private partnerships following this visit.

Participants identified several areas that they expected to be covered in more detail. These included: undergraduate programs for medical students; the Australian way of life; details of General Practice (GP) curriculum; experience of strategic planning for health services; visits to Sydney

hospitals; how to write medical education sessions; assessment techniques; risk management; litigation; specialists who are also educators of GPs; the pharmacy system and the recruitment of rural medical students. These areas varied somewhat to the agreed learning objectives for the course.

Evaluation one year after the course

Participant interviews reflected five key themes concerning the capacity of participants to translate knowledge into changes within their workplaces. The key themes were: knowledge and ideas; role delineation; locus of control; change and organisational supports.

Knowledge and ideas

All the participants universally identified the acquisition of new knowledge as highly valuable. They are now familiar with the Australian healthcare system

It benefits me to better understand the Australian health system [and the] health management system regarding patient referral system. Another benefit I gained is that I learnt the strategy to enable doctors working in rural area to be retained longer. The last is that I understand their medical education management, which uses rural community hospitals and surgeries as the clinical training sites.

They also valued knowledge about programs to recruit and retain doctors in rural areas of Australia with particular emphasis on vertical integration between medical schools and postgraduate training.

I learnt the strategy to enable doctors working in rural areas [to be] retained longer.

Participants could compare and contrast the Australian and Thai health systems. This included differences in budgeting. 'Australia has good budgeting planning' and the role of a GP as a gatekeeper in the Australian health system 'I think that the meaning of "GP" in Australian health system is different from ours. Our GP is a basic doctor. However, the Australian GP is a post-graduate doctor.'

This knowledge was transferred to authorities that were considered to have the power to change policy, while the participants acknowledged that this might take time.

If the high authority thinks that our proposal is good and useful, they may take the concepts and apply them but we need to take time.

Role delineation

Participants separated clinical, management and medical education roles in applying knowledge from the study tour to their workplace.

When we want to apply this concept to our area, we found a difficulty as our doctors' workload for services is high overloaded [sic]. Then, when we have another responsibility for medical education, we have higher work overload.

I am a pediatrician and I have no position in management so I don't have authority in changing the management practice.

Those with existing dual roles viewed the integration of management with medical education training favourably.

It is good concepts of integration[sic] between health services and medical education and allowing the health professionals in health services [to] learn public health.

The diversity of Thai backgrounds (medical education and management) was viewed positively by some participants.

This is because every participant came from different parts of the Thai health system, so we interpreted things by using each individual's experiences or contexts as we perceived things differently. One who was from the community hospital saw one thing while another one, who was the specialist doctor from the regional hospital, saw another thing. One from the provincial hospital saw another way [sic]. So, if they can discuss this with each other, it will be like they put their jigsaws together to be the whole picture and they can see this picture clearer.

Others suggested two separate courses would be more appropriate.

The executives should focus on healthcare system management. The lecturers should participate only for medical education.

I think that setting both of them together was not compatible.

Locus of control

Participants implemented changes in their local work environments where they had influence and a locus of control.

I have taken the knowledge and experience gained from Australia regarding learning sources for student and implemented them in the course of community medicine at [the] medical education centre where I teach. I apply the Australian concept of GP in my teaching.

Others felt they lacked authority to implement any change.

No, there's not any change yet. I think what I have changed are my ideas. I can collect ideas... [and report] to our bosses and also the university.

What I think that was unsatisfactory to me is that none of us had authority in changing our health system or rural medical education system. The benefit was only for the individual and it was a high benefit.

Furthermore, they did not see it was their role to change the health system so that it becomes based on primary healthcare, even though this was an interest of the group.

If the government promotes having a GP system, such as having recruitment and selection of high-school students from the rural areas where there are shortages of doctors... I think that we can make a change. If we can do what I suggested, we can retain and sustain GPs in rural areas... What I can do now is that I can only make a good role model as a GP for my student.

Changes

Participants successfully implemented changes in their local work environments in their perceived area of influence and locus of control. Changes implemented by participants included implementation of new teaching skills, developing community placements for students and training local health professionals in medical education.

What I can do is to apply the Australian concept to be implemented at my clinical training sites only.

Only a few participants implemented management changes at the local level. These individuals had an existing health service management role. This included developing population health approaches to disease management and development of a GP clinic to triage hospital access.

Fortunately, my director accepts the Australian concept to which I introduced to him and he applies this concept. We will implement two OPDs [Out-Patient Departments] outside the hospital as the gatekeeper so that the patients do not access hospital services directly. We will have GPs to service these OPDs... I use the gatekeeper concept in this project.

A barrier to the implementation of many proposed changes identified by the group was the need to influence policy at regional or national level.

What is closest to me I can't change, namely how can we make our district health services system to be united [sic]. Presently the community hospital and the district health office as well as health centres are separated independent

[sic]... In many areas, we can't coordinate. If we can do this as a united organisational structure, I think that our work will be more holistic and we can reduce the complexity of the hierarchy of control and management structure.

Restructuring of medical education, health service management, programs to develop rural doctor production and vocational training in rural areas, were emphasised as priorities for Thailand by participants. These changes were felt by participants to be beyond their influence and required policy changes from authorities.

For instance, how to recruit and select the potential medical students, how to make the public see this point, it's not my authority and it's not my role as I am not the one who takes responsibility for such management.

Organisational support

Organisational supports were identified as important to the pre-planning and selection of teams for future cross-cultural educational programs.

I think that there are two things: preparing the participants and selecting the potentials. I think that we didn't [consider] what we could do, could really do from our team. Do they have any role or competencies to make things change? Do they have enough authority to change things? If you select the participants at the operational level, you can't change the policy. They can't push anything.

There was also a need to resource participants on their return to reduce isolation and workload to optimise the benefits of educational exchanges to the sponsoring organisations involved.

After we returned from the study tour, everybody has their own world. I mean we experience an overload of our own work. We used to talk that we would like to make our team to promote GPs and push teaching GPs at the small community hospitals but we couldn't make it happen as we do not have authority to do it.

Conclusion

To our knowledge there has been limited studies assessing longer-term knowledge translation in health service management cross-cultural exchanges in developing countries. This study tour used a variety of educational interventions to transfer knowledge designed to foster self-reflection and peer discussion. These educational methods are more effective in changing health professional in studies conducted in developed countries [13] and were valued by the Thai participants in our study. Providing learning experiences that are valued is a preliminary stage to cross-cultural knowledge translation in the workplace. [9]

The knowledge gained during the study tour was universally valued by participants and shared with authorities at all sites but only implemented locally where participants had a perceived locus of control to implement change, or were supported by their immediate supervisors to implement change. Participants may value the learning and be motivated to implement changes, but environmental supports and barriers in the workplace will influence whether adoption and outcomes occur. This finding is consistent with the Ottawa Model of Research Use [4] and findings from the information technology industry. [9]

The findings of this study in terms of the influence of the work environment influencing knowledge translation are consistent with the findings of Fox et al with Canadian physicians [14] and other health professional cross-cultural exchanges to increase family medicine capacity in Latin America, [16] Egypt [17] and between France and Mali. [18] These studies have found health professional change to be variable and dependent on the interest of the learner and barriers and facilitating factors in the environment. [4] Barriers occur with the adoption of new practices that require more extensive changes in the health service at a regional level or national level. [18,19] In this study, changes in medical education were implemented more readily as participants had autonomy to implement these changes in their teaching. Health service management changes were not as frequent. This demonstrates the need for participants to be supported on their return by their work environment and line managers to optimise outcomes of such exchanges.

This paper has several limitations. We relied on the self-reporting of the participants and the study tour organisers and authors are the same group. The participants volunteered for the project so our findings may include selection bias. Resource limitations meant we needed to use an evaluation framework which was practical enough to be implemented in rural areas of Thailand. The evaluation framework selected has been used in developed countries to explore knowledge translation. In many ways this evaluative study should be considered a pilot, however, our results suggest this methodology was useful in a Thai rural context. We are unable to comment on the generalisability of our findings to other developing countries. We recognise that a case study using in-depth interviews from multiple sources in the workplace would provide much richer data and would recommend an expansion of this research using this methodology in other settings.

Establishing an effective and sustainable cross-cultural educational program collaboration [20] is dependent on

the needs of target organisations. Goals will vary between organisations, individuals and cultures. Educational organisations supporting such cross-cultural programs in health service management need to clarify their objectives especially if they wish to implement changes at a regional level. Preplanning and selection with sufficient resourcing and mentoring of participants on their return is required. Linkage with the sponsoring organisations is needed to optimise the implementation of lessons learnt from cross-cultural exchanges in health service management.

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