



Integration of Overseas Trained Doctors

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Author: Tari Turner

Requestors: Thomas Chan
Director of Emergency Department, Casey Hospital

Abstract

Background: An increasing proportion of the medical staff employed in Australian hospitals have been trained in countries other than Australia. The transition into the Australian culture, both within the hospital system and more widely, can be difficult for doctors trained outside Australia. Southern Health is undertaking a project aimed at improving the integration of overseas trained doctors into Southern Health hospitals and requested that CCE investigate whether there were successful programs which had been used in other hospitals.

Clinical Question: When doctors have been trained in other countries, what programs improve their integration into the local clinical and social culture of the country in which they work?

Methods: We included all trials published in English.

We searched Medline, The Cochrane Library, Embase, PsycInfo, ERIC, Australian Education Index, C2 Social, Psychological, Education, and Criminological Trials Registry (C2-SPECTR), C2 Reviews of Interventions and Policy Evaluations (C2-RIPE), Sociological Abstracts and ISI Social Science Citation Index.

Studies were selected and appraised by one reviewer in consultation with colleagues, using inclusion, exclusion and appraisal criteria established a priori.

Results: Our searching identified over 4600 potentially relevant citations. After reviewing titles and abstracts we excluded the majority of these. One hundred and thirty-seven articles were retrieved in full text and five studies were included. These five studies were conducted in a variety of contexts, with a wide range of aims, content, participants and outcome measures. While methodologically limited, all the included studies suggest that induction or bridging programs for overseas trained doctors may be of benefit in improving their cultural sensitivity as well as increasing confidence in workplace skills and levels of success in licensing examinations.

Conclusions: The limited body of evidence available suggests that induction or bridging programs for overseas trained doctors may be of benefit in improving cultural sensitivity as well as increasing confidence in workplace skills and levels of success in licensing examinations. The wide variety of aims, content, participants and contexts of identified studies mean that no conclusions can be made about the specific factors that make induction or bridging programs successful in integrating overseas trained doctors into the local culture of the country in which they work.

Background

An increasing proportion of the medical staff employed in Australian hospitals have been trained in countries other than Australia. The transition into the Australian culture, both within the hospital system and more widely, can be difficult for doctors trained outside Australia. Southern Health is undertaking a project aimed at improving the integration of overseas trained doctors into Southern Health hospitals and requested that CCE investigate whether there were successful models which had been used in other hospitals.

Clinical Question

When doctors have been trained in other countries, what programs improve their integration into the local clinical and social culture of the country in which they work?

This question is broad and the outcome of 'integration into the local culture' is difficult to define. In discussion with the requestors we agreed that any study which provided comparative, quantitative data on the effect of programs designed to integrate or support doctors in transition between the country in which they had been trained and the country in which they were now working would be included. Quantitative outcomes were chosen as the question centered on demonstrating effectiveness, rather than exploration of enabling or limiting factors.

Methods

Study Selection Criteria

Population	Medical staff trained in a country other than the one in which they practice				
Intervention	Any intervention aimed at improving their integration into the local culture. Interventions with a sole focus on improving general English skills (rather than medical language skills) were excluded.				
Comparison	Any				
Outcomes	Any quantitative outcomes				
Study Type	Any comparative study	Publication Date	Any	Language	English

Search Strategy

Evidence Source	Date of Search	Evidence Source	Date of Search
All EBM Reviews (Ovid) *	14 th November 2006	ERIC	16 th November 2006
Medline (Ovid)	14 th November 2006	Sociological Abstracts	16 th November 2006
PsycInfo (Ovid)	15 th November 2006	ISI Social Science Citation Index	16 th November 2006
Embase	15 th November 2006	Australian Education Index	30 th November 2006
C2 Reviews of Interventions and Policy Evaluations (C2-RIPE)	15 th November 2006	C2 Social, Psychological, Education, and Criminological Trials Registry (C2-SPECTR)	15 th November 2006

*(including The Cochrane Database of Systematic Reviews, DARE, CENTRAL and ACP Journal Club)

Search Terms

Participant	(overseas OR foreign OR international OR migrant OR immigrant) AND (doctor* OR surgeon* OR physician* OR (graduate* AND (medical OR medicine OR surgical)))
Intervention	(bridging OR train* OR pre-employment OR educat* OR integrat* OR orientat* OR induct* OR cultur*)
Comparison	-
Outcomes	-

Data Collection & Analysis

Studies were selected and appraised by one reviewer in consultation with colleagues using study selection and appraisal criteria established a priori.

As a result of our broad, comprehensive searching, we initially identified over 4600 potentially relevant citations. The majority of these did not meet inclusion criteria on the basis of review of title and abstract. When a decision could not be made based on abstract alone, full text was retrieved. One hundred and thirty-seven full text articles were retrieved for review and five articles met the inclusion and exclusion criteria. A detailed critical appraisal of these studies is provided in the Appendix.

A large number of retrieved studies discussed or described induction or bridging programs but did not provide any quantitative data by which to assess effectiveness, these studies were excluded.

Results

Five relevant studies were identified which met study selection criteria. All of these studies have some methodological limitations, and no randomised controlled trials, which would be the highest level evidence for this question, were identified.

The first study¹ was a survey based evaluation of a course in professional development for overseas trained doctors (OTDs) in New Zealand. The participants were 25 doctors who undertook the Professional Development component of the Overseas Doctors Training Programme in New Zealand, which was a 30% response rate from the 89 doctors that passed the program. All doctors who had passed the first three intakes (dates not specified) of the course were sent a survey. The course was an 18 week update in medical knowledge and professional development followed by a 6 month supervised attachment in a public hospital. The program included teaching on communication skills (including reflective listening, empathy, open questions, rapport building, dealing with difficult situations), Maori culture, ethics and medico legal issues. Comparisons were made between immediately before and after completion of the program, and then at the time of the study (time not specified). However, all time points were assessed retrospectively using one survey. The survey aimed to assess changes in the OTDs' comfort with their ability to communicate effectively with Maori and other New Zealand patients and usefulness of teaching on communication skills.

In between the pre and post course measures, participants had also spent a substantial period of time living in the New Zealand culture and this may well have contributed to any outcomes. The time between completion of the course and the study is not provided. Only 30% of potential participants returned the survey. Outcomes were self-assessed and several were retrospective i.e. 'How did you perceive X while you were doing the program? How do you perceive it now?' Inclusion of only those participants who had passed the course might also bias the nature of the response in favour of the course.

Respondents reported a significant increase in their comfort levels in communicating with New Zealand and Maori patients (data displayed graphically, $p < 0.001$), both immediately post the course and then again at the time of the study. The author concluded that "Responding OTDs said the Professional Development component was valuable and effective with respect to improving communication skills and patient-centred consultations." The low response rate and requirement for respondents to recall their perceptions of components of the course in the past, as well as the subjective, self-assessment of outcomes and the potential for other confounding factors to impact on the results of the study make it difficult to interpret. Respondents may well represent a different group than non-respondents.

The second study² examined the impact of 'cultural sensitivity training' among newly immigrated physicians in Canada. Twenty four foreign graduates completed the 9 month programme which included five, 3-hour sessions of cultural sensitivity training. Training was designed to promote self-awareness and knowledge of cultural impact on health. Literature and scenarios were used and participants caused to reflect on their own values. Topics included psychosocial barriers to healthy lifestyle, language, culture shock, multicultural medicine, different concepts of health, communication theory, philosophical differences between western and traditional medicine and multidisciplinary team work. The program emphasised experiential learning, including interviewing of simulated patients. Comparison was made with 24 foreign graduates who did not undertake the programme but who had completed 10 months of their first year of residency training. The primary outcomes were change in scores on a validated tool, the Cross-Cultural Adaptability Inventory (CCAI), before and 15 days after residency period (control group) or before and 15 days after cultural sensitivity training (experimental group).

All foreign graduates were invited to participate and the participant groups were comparable except for exposure. The short follow-up period will minimise the effect of other cultural exposures occurring after the course, but means the long-term sustainability of changes cannot be demonstrated. Four members of each group did not complete either baseline or follow-up questionnaires.

Results at baseline were similar between the groups. Post-intervention there was no significant change in any of the dimensions of the CCAI in the control group, however the experimental group had significantly improved on 2 of the 4 dimensions (Emotional Resilience and Perceptual Acuity, $p < 0.001$ and $p = 0.03$) and the improvement in Flexibility/openness approached statistical significance ($p = 0.06$). The importance of the size of these changes is unclear as only limited detail on the scale is provided. The authors concluded that "This study establishes the effectiveness of culture sensitivity training on foreign-trained physicians." Physicians in the experimental group had improved "ability to cope with stressful clinical situations, and interaction with people in a new or unfamiliar environment", they also "became increasingly open, interested and wanting to learn from others different from themselves" and "became increasingly tolerant, non-judgemental and understanding to others". This well controlled study demonstrates the potential for cultural sensitivity training to improve cultural adaptability in OTDs. The short follow-up period will minimise confounding due to other cultural exposures, but means the long-term sustainability of improvements is yet to be demonstrated.

The third study³ investigated training of immigrant doctors in Israel and included 273 immigrant doctors who participated in a 20 week full time teaching program predominantly covering clinical content delivered in a combination of Hebrew and English, 4 hours per day lectures and 4 hours per day problem oriented small group work. The intervention included an implicit additional goal to increase social integration through provision of social opportunities. Comparison was made to 1004 immigrant doctors who did not participate in the program in regards to rates of passing the Israeli National Licensing Examination (NLE).

It is unclear whether the groups were comparable as only limited data was provided. The proportion lost to follow-up was not reported.

In the winter 1990 examination 61.5% of the experimental group passed the NLE compared to 19.6% of the control group. The authors state that "These striking figures have been repeated ever since, with a small variation of 15-25% in pass rate among non-participants compared to 60-70% among graduates of the program." The authors concluded that "This success proves that training of immigrant doctors can be attained by a short programme if the learners' needs are carefully analysed, the programme appropriately designed, and the staff is enthusiastic, devoted and determined."

This study with an objective outcome measure provides evidence that a training program can increase the rates at which OTDs will pass a national licensing exam. The limited information available to compare the two groups does not allow us to rule out the possibility that the control and experimental groups might have been different at baseline, and that this rather than the program might have been responsible for the differing outcomes of the groups.

The fourth study⁴ investigated a pre-employment programme for overseas-trained doctors entering the Australian workforce. The study included 60 OTDs who had passed their Australian Medical Council (AMC) exams and were applying for a pre-registration year in New South Wales. Participants took part in a 4 week full time teaching program covering communication, health and workplace skills, culture shock, and the role of junior doctors and a hospital attachment. Teaching occurred at a central site for all of the first week and then Fridays of weeks 2-4, with other teaching occurring at the participant's hospital. Comparison was made between results on pre and post intervention testing in regards to participants' confidence in their ability to undertake general duties of internship and in their workplace skills.

It is not clear whether assessment of results immediately post-intervention is appropriate. This short period will minimise confounding due to other cultural exposures, but means the long-term sustainability of improvements cannot be demonstrated. Four participants did not complete post-program test. Outcomes were self-assessed and therefore subjective.

Statistically significant increases were seen in the proportion of OTDs who were fairly or very confident with their ability to cope, clinical clerking skills, communication skills, clinical judgement skills and ability to relate to patients and peers (all $p < 0.05$). Increases in confidence in diagnostic skills did not quite reach statistical significance ($p = 0.071$). Statistically significant improvements were also seen in 11 of the 12 workplace skills (i.e. "I am familiar with hospital forms", "I know how to write up patient notes", "I understand the role of allied health staff", etc). The authors conclude that "The pre-employment programme enabled the OTDs to have a more equitable entry into the public hospital system, resulting in a more integrated, confident and functional workforce."

This study demonstrates the potential for training to improve confidence in clinical and workplace skills in OTDs. The short follow-up period means the long-term sustainability of changes cannot be demonstrated, and use of self-assessment of confidence as the outcome measures means we cannot be certain that real skills gains were made.

The fifth study⁵ reported on a bridging program for overseas trained doctors in Australia. The study included OTDs who were candidates for the Australian Medical Council (AMC) examinations at South Western Sydney Area Health Service. Participants undertook a two part course consisting of five months fulltime study in preparation for the multiple choice question (MCQ) examination; including individual English language training as appropriate to specific needs. Then after the participant had passed the MCQ they undertook a second five month study period comprising lectures and tutorials

for 12 hours per week and a hospital attachment for 20 hours per week before sitting their clinical exam. Further English language training was incorporated with an emphasis on communication skills.

Comparisons were made with OTDs who did not undertake the program in regards to performance on the AMC MCQ and Clinical Examinations. To be selected for the program candidates must have:

- been eligible to sit the AMC exam
- successfully completed the Occupational English Test
- been resident in NSW at the time of the program
- successfully completed a series of screening questions and an interview to demonstrate designated levels of knowledge
- demonstrated an ability to update their knowledge and skills and a preparedness to meet attendance requirements and accept structured supervision.

The highly selective requirements for entry into the course may well mean that the participants in the course are not representative of the wider population of OTDs, and might well be expected to do better on the AMC examinations regardless of the intervention. This could both mean that the difference in outcomes between experimental and control groups that was due to baseline differences, and also limit the applicability of the results to the broader OTD population. Further it is unclear whether participants in the program might have been held back from sitting the examination if it was felt likely they would fail it.

Forty eight of the 52 (92%) participants in the program who sat the MCQ exam passed on their first attempt as compared to the national rate of 53%. Nine of the 14 (64%) participants in the program who sat the clinical exam passed on their first attempt as compared to the national rate of 47%. The authors conclude that “The general view gained from various sources is that the program is professionally and educationally sound.”

The selection process for candidates to participate in this program makes it difficult to determine whether the differences in results seen between the experimental and control groups are due to the intervention or occur because the participants are a highly selected, and more highly achieving subpopulation.

Discussion

These five studies, while methodologically limited, all suggest that induction or bridging programs for overseas trained doctors may be of benefit in improving outcomes such as cultural adaptability as well as increasing confidence in workplace skills and levels of success in licensing examinations. The wide variety of contexts in which these programs have been implemented, as well as the varying aims, content, outcome measures and participants of these programs mean that few definitive statements can be made in regard to the most effective programs, and perhaps this highlights the importance of tailoring such programs to the needs of the participants and the course providers.

Several caveats are important. All of the included studies were undertaken in ‘western’ countries and are therefore only generalisable to these types of countries, if at all. The difficulty of assessing the extent to which doctors are integrated into the local culture, or of even defining clearly what this is, means that in most cases proxy or related outcome measures have been used – and the validity of these outcome measures has not always been clearly established. Studies often only provide limited description of the programs they are evaluating and so replicating ‘successful’ programs may not be possible.

It is worth remembering that studies which demonstrated no effect of induction or bridging programs are unlikely to have been published. Also the included studies are not necessarily representative of the wider body of literature that discusses induction or bridging programs for overseas trained doctors but did not meet the inclusion criteria for this review. In particular there are many studies which report on such programs but do not provide comparative data with which to assess effectiveness.

Conclusions

The limited body of evidence available suggests that induction or bridging programs for overseas trained doctors may be of benefit in improving cultural sensitivity as well as increasing confidence in workplace skills and levels of success in licensing examinations.

The lack of good quality studies, and the wide variety of aims, content, participants and contexts of identified studies mean that no conclusions can be made about the specific factors that make induction or bridging programs successful.

References

1. Hawken, S., Overseas-trained doctors' evaluation of a New Zealand course in professional development. *New Zealand Medical Journal*, 2005. 118(1219): p. U1584.
2. Majumdar, B., J.S. Keystone, and L.A. Cuttress, Cultural sensitivity training among foreign medical graduates. *Medical Education*, 1999. 33(3): p. 177-84.
3. Romem, Y. and D.E. Benor, Training immigrant doctors: Issues and responses. *Medical Education*, 1993. 27(1): p. 74-82.
4. Sullivan, E.A., et al., A pre-employment programme for overseas-trained doctors entering the Australian workforce, 1997-99. *Medical Education*, 2002. 36(7): p. 614-21.
5. Webster, I.W. and R.W. Rawlinson, Innovative bridging program for overseas trained doctors. *Medical Journal of Australia*, 1991. 155(8): p. 553-6.

Disclaimer

The information in this report is a summary of that available and is primarily designed to give readers a starting point to consider currently available research evidence. Whilst appreciable care has been taken in the preparation of the materials included in this publication, the authors and Southern Health do not warrant the accuracy of this document and deny any representation, implied or expressed, concerning the efficacy, appropriateness or suitability of any treatment or product. In view of the possibility of human error or advances of medical knowledge the authors and Southern Health cannot and do not warrant that the information contained in these pages is in every aspect accurate or complete. Accordingly, they are not and will not be held responsible or liable for any errors or omissions that may be found in this publication. You are therefore encouraged to consult other sources in order to confirm the information contained in this publication and, in the event that medical treatment is required, to take professional expert advice from a legally qualified and appropriately experienced medical practitioner.

Appendix - Appraisal of included studies:

Study: Hawken, S., Overseas-trained doctors' evaluation of a New Zealand course in professional development. New Zealand Medical Journal, 2005. 118(1219): p. U1584.

Description of study

Participants	25 of the 89 doctors who undertook and passed the Professional Development component of the Overseas Doctors Training Programme in New Zealand. (30% response rate from the 89 doctors that passed the program). Countries of origin included Bangladesh, India, Sri Lanka, China, Egypt, Iraq, Iran, Singapore, Russia, the Philippines, Serbia, Albania and Croatia.
Intervention	18 week update in medical knowledge and professional development followed by a 6 month supervised attachment in a public hospital. Program included teaching on communication skills (including reflective listening, empathy, open questions, rapport building, dealing with difficult situations), Maori culture, ethics and medico legal issues
Comparisons	Immediately before and after completion of the program, and then at the time of the study (time not specified). All time points were assessed retrospectively using one survey.
Outcomes	Comfort level in ability to communicate effectively with Maori and other New Zealand patients, usefulness of teaching on communication skills,
Inclusion Criteria	All doctors who had passed the first three intakes (dates not specified) of the course were sent a survey
Exclusion Criteria	None specified

Study Validity

Specified inclusion/ exclusion criteria	Minimal	
Participant groups comparable except for exposure	Unclear	In between the pre and post course measures, participants had also spent a substantial period of time living in the New Zealand culture and this may well have contributed to the effect seen.
Sufficient duration of follow-up	Unclear	The time between completion of the course and the study is not provided.
Proportion lost to follow-up	70%	Only 30% of potential participants returned the survey
Outcomes assessed blindly with respect to exposure	No	
Outcomes assessed objectively and independently	No	Outcomes are self-assessed and several are retrospective i.e. 'How did you perceive X while you were doing the program? How do you perceive it now?'
All selected subjects included in analysis	No	Only 30% of potential participants returned the survey

Results

Respondents reported a significant increase in their comfort levels in communicating with Maori and other New Zealand patients (data displayed graphically, $p < 0.001$), both immediately after the course and then again at the time of the study. Respondents also commented that they appreciated the communication skills component of the course

Author's Conclusions

"Responding OTDs said the Professional Development component was valuable and effective with respect to improving communication skills and patient-centred consultations."

Our comments

The low response rate and requirement for respondents to recall their perceptions of components of the course in the past, as well as the subjective, self-assessment of outcomes and the potential for other confounding factors to impact on the results of the study make it difficult to interpret. Respondents may well represent a different group than non-respondents.

Study: Majumdar, B., J.S. Keystone, and L.A. Cuttress, Cultural sensitivity training among foreign medical graduates. *Medical Education*, 1999. 33(3): p. 177-84.

Description of study

Participants	Newly immigrated physicians licensed in Canada. Ethnicities included Chinese, Vietnamese, Egyptian, Canadian, East Indian, British, Polish, Tamil, Israeli, Spanish and Romanian.
Intervention	24 foreign graduates who had completed the 9 month programme which included five 3-hour sessions of cultural sensitivity training. Training was designed to promote self-awareness and knowledge of cultural impact on health. Literature and scenarios were used and participants caused to reflect on their own values. Topics included psychosocial barriers to healthy lifestyle, language, culture shock, multicultural medicine, different concepts of health, communication theory, philosophical differences between western and traditional medicine and multidisciplinary team work. The program emphasised experiential learning, including interviewing of simulated patients.
Comparisons	24 foreign graduates who had not completed the programme but who had completed 10 months of their year 1 residency training.
Outcomes	Change in scores on the Cross-Cultural Adaptability Inventory (CCAI) before and 15 days after residency period (control group) or before and 15 days after cultural sensitivity training (experimental group).
Inclusion Criteria	All foreign graduates were invited to participate
Exclusion Criteria	None

Study Validity

Specified inclusion/ exclusion criteria	Limited	All foreign graduates were invited to participate
Participant groups comparable except for exposure	Yes	
Sufficient duration of follow-up	Unclear	The 15 days post-intervention follow-up minimise confounding due to other cultural exposures, but means the long-term sustainability of changes is cannot be demonstrated.
Proportion lost to follow-up	2/48	2 of the control group members did not complete the follow-up questionnaires
Outcomes assessed blindly with respect to exposure	No	
Outcomes assessed objectively and independently	Yes	The Cross-Cultural Adaptability Inventory (CCAI) was used and test characteristics are provided
All selected subjects included in analysis	Mostly	8/48 (4 from each group) did not complete either baseline or follow-up questionnaires.

Results

Results at baseline were similar between the groups. Post-intervention there was no significant change in any of the dimensions of the CCAI in the control group, however the experimental group had significantly improved on 2 of the 4 dimensions (Emotional Resilience and Perceptual Acuity, $p < 0.001$ and $p = 0.03$) and the improvement in Flexibility/openness approached statistical significance ($p = 0.06$). The importance of the size of these changes is unclear as only limited detail on the scale is provided.

Author's Conclusions

“This study establishes the effectiveness of culture sensitivity training on foreign-trained physicians.” Physicians in the experimental group had improved “ability to cope with stressful clinical situations, and interaction with people in a new or unfamiliar environment”, they also “became increasingly open, interested and wanting to learn from others different from themselves” and “became increasingly tolerant, non-judgemental and understanding to others”.

Our comments

This well controlled study demonstrates the potential for cultural sensitivity training to improve cultural adaptability in OTDs. The 15 days post-intervention follow-up minimise confounding due to other cultural exposures, but means the long-term sustainability of changes is cannot be demonstrated.

Study: Romem, Y. and D.E. Benor, Training immigrant doctors: Issues and responses. Medical Education, 1993. 27(1): p. 74-82.

Description of study

Participants	Immigrant doctors in Israel. Participants were predominantly from the states of the former Soviet Union, other Eastern European countries, South America and Iran.
Intervention	273 immigrant doctors who participated in a 20 week full time teaching program predominantly covering clinical fields delivered in a combination of Hebrew and English, 4 hours per day lectures and 4 hours per day problem oriented small group work. Implicit additional goal to increase social integration – including provision of social opportunities
Comparisons	1004 immigrant doctors who did not participate in the program
Outcomes	Rates of passing National Licensing Examination (NLE)
Inclusion Criteria	None specified
Exclusion Criteria	None specified

Study Validity

Specified inclusion/ exclusion criteria	None specified
Participant groups comparable except for exposure	Unclear Limited data provided
Sufficient duration of follow-up	Yes Appropriate for outcome measured
Proportion lost to follow-up	Not described
Outcomes assessed blindly with respect to exposure	Yes
Outcomes assessed objectively and independently	Yes
All selected subjects included in analysis	Not described

Results

In the winter 1990 examination 61.5% of the experimental group passed the NLE compared to 19.6% of control group. The authors state that “These striking figures have been repeated ever since, with a small variation of 15-25% in pass rate among non-participants compared to 60-70% among graduates of the program.”

Author’s Conclusions

“This success proves that training of immigrant doctors can be attained by a short programme if the learners’ needs are carefully analysed, the programme appropriately designed, and the staff is enthusiastic, devoted and determined.”

Our comments

This study with an objective outcome measure provides evidence that a training program can increase the rates at which OTDs will pass a national licensing exam. The limited information available to compare the two groups does not allow us to rule out the possibility that the control and experimental groups might have been different at baseline and that this, rather than the program, might have been responsible for the differing outcomes of the groups.

Study: Sullivan, E.A., et al., A pre-employment programme for overseas-trained doctors entering the Australian workforce, 1997-99. Medical Education, 2002. 36(7): p. 614-21.

Description of study

Participants	60 OTDs who had passed their Australian Medical Council (AMC) exams and were applying for a pre-registration year in New South Wales were invited to participate. Ethnicity or country of origin of participants is not described, however participants are reported to speak English, Arabic, Tagalog, Bengali, Burmese, Hindi and Serbian.
Intervention	A 4 week full time teaching program covering communication, health and workplace skills, culture shock and the role of junior doctors and a hospital attachment. (Teaching occurred at a central site for all of the first week and then Fridays of weeks 2-4).
Comparisons	Pre and post intervention testing
Outcomes	Confidence in general duties of internship and workplace skills
Inclusion Criteria	None specified
Exclusion Criteria	None specified

Study Validity

Specified inclusion/ exclusion criteria	None specified	
Participant groups comparable except for exposure	Yes	Pre-test and post-tests for conducted approximately 4 weeks apart.
Sufficient duration of follow-up	Unclear	Not clear if immediately post-intervention is an appropriate follow-up. This short period will minimise confounding due to other cultural exposures, but means the long-term sustainability of improvements is yet to be demonstrated.
Proportion lost to follow-up	4/64	Four participants did not complete post-program test
Outcomes assessed blindly with respect to exposure	No	
Outcomes assessed objectively and independently	No	Outcomes are self-assessed and therefore subjective
All selected subjects included in analysis	Mostly	Four participants did not complete post-program test

Results

Statistically significant increases were seen in the proportion of OTDs who were fairly/very confident with their ability to cope clinical clerking skills, communication skills, clinical judgement skills and ability to relate to patients and peers (all $p < 0.05$). Increases in confidence in diagnostic skills did not quite reach statistical significance ($p = 0.071$). Statistically significant improvements were also seen in 11 of the 12 workplace skills (i.e. "I am familiar with hospital forms", "I know how to write up patient notes", "I understand the role of allied health staff", etc).

Author's Conclusions

"The pre-employment programme enabled the OTDs to have a more equitable entry into the public hospital system, resulting in a more integrated, confident and functional workforce."

Our comments

This study demonstrates the potential for training to improve confidence in clinical and workplace skills in OTDs. The short follow-up period means the long-term sustainability of improvements is yet to be demonstrated, and use of self-assessment of confidence means we cannot be certain that real skills gains were made.

Study: Webster, I.W. and R.W. Rawlinson, Innovative bridging program for overseas trained doctors. Medical Journal of Australia, 1991. 155(8): p. 553-6.

Description of study

Participants	Overseas trained doctors who were candidates for the Australian Medical Council (AMC) examinations at South Western Sydney Area Health Service (countries of origin not described)
Intervention	A two part course consisting of 5 months fulltime study in preparation for the multiple choice question (MCQ) examination, including individual English language training as appropriate to specific needs. Then after the participant had passed the MCQ a second 5 month study period comprising lectures and tutorials for 12 hours per week and a hospital attachment for 20 hours per week before sitting their clinical exams. Further English language training was incorporated with an emphasis on communication skills.
Comparisons	OTDs who do not complete the program
Outcomes	Performance on the AMC MCQ and Clinical Examinations
Inclusion Criteria	To be selected for the program candidates must: <ul style="list-style-type: none">• Be eligible to sit the AMC exam• Have successfully completed the Occupational English Test• Be resident in NSW• Have successfully completed a series of screening questions and an interview to demonstrate designated levels of knowledge• Demonstrate an ability to update their knowledge and skills and a preparedness to meet attendance requirements and accept structured supervision.
Exclusion Criteria	As above

Study Validity

Specified inclusion/ exclusion criteria	Yes	
Participant groups comparable except for exposure	No	The high requirements for entry into the course may well mean that the participants in the course are not representative of the wider population of OTDs, and might well be expected to do better on the AMC examinations regardless of the intervention. This could both mean that the difference in outcomes between experimental and control groups that was due to baseline differences, and also limit the applicability of the results to the broader OTD population. Further it is unclear whether participants in the program might have been held back from sitting the examination if it was felt likely they would fail it.
Sufficient duration of follow-up	Yes	
Proportion lost to follow-up	Not described	
Outcomes assessed blindly with respect to exposure	Yes	
Outcomes assessed objectively and independently	Yes	
All selected subjects included in analysis	Not described	

Results

Forty eight of the 52 (92%) participants in the program who sat the MCQ exam passed on their first attempt as compared to the national rate of 53%. Nine of the 14 (64%) participants in the program who sat the clinical exam passed on their first attempt as compared to the national rate of 47%.

Author's Conclusions

"The general view gained from various sources is that the program is professionally and educationally sound."

Our comments

The selection process for candidates to participate in this program makes it difficult to determine whether the differences in results seen between the experimental and control groups were due to the intervention or occur because the participants are a highly selected, and more highly achieving subpopulation.

Papers Awaiting Retrieval in Full-text

Indo-Chinese Refugee Physician ECFMG Review Course. Hahnemann Medical College & Hospital. Project Report. 1981. p. 303.

Honeywill, S. and J. Watson, Overseas trained doctors bridging program - clinical preparation course. Interchange, 1999(34): p. 26-32.

These papers have been ordered in full text but not yet received. We will update the results of this review when they are received.
