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PROJECT REPORT

Building capacity in the rural physiotherapy workforce: a paediatric training partnership

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ABSTRACT

Context: 'Building capacity in the rural physiotherapy workforce: a paediatric training partnership' provided 6 months postgraduate paediatric clinical and academic training for two physiotherapists in rural Australia. It is described as a model for improving services and workforce retention. The need for 'an appropriate, skilled and well-supported health workforce' is the third goal in Australia's National Strategic Framework for Rural and Remote Health 2011. The World Health Organization recently published its first global policy for improving the retention of rural and remote health workers. Education is its first recommendation and aims to 'design continuing education and professional development programmes that meet the needs of rural health workers and that are accessible from where they live and work, so as to support their retention ...'. Additionally, '... to be successful, continuing education needs to be linked to career paths, as well as with other education interventions'.

Issues: The problem is a lack of paediatric physiotherapy expertise in rural areas due to an absence of postgraduate clinical training opportunities in the rural workforce. The result is fragmented local services for families who are forced to travel to metropolitan services, costly in terms of both time and money. The aims were to improve local paediatric physiotherapy clinical services, provide physiotherapists additional access to professional development and subsequently provide a career path to retain these health professionals. Evaluation of the project used purpose-built questionnaires as there are no specific indicators to monitor the performance of systems and services that are available to children and families in Australia.

Lessons learned: The paediatric physiotherapy training program was enabled through initial funding for a 12-month pilot project. Further government funding built on that success for this reported 6-month project. Funding to employ the postgraduate physiotherapists was essential to the success of the clinical training program, and lack of future funding is a barrier to its sustainability. The program included the consolidation of the initial management and education committees and the expert reference group. Weekly tutorials, case studies and presentations formed an important part of clinical rotation between hospital outpatients, specialist school and the disability sector. This increased the provision of skilled paediatric physiotherapy services close to home in a



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timely fashion not previously available. Concurrently, the training increased the clinicians' paediatric knowledge and confidence, promoting workforce retention by providing a career pathway. The senior clinicians who provided clinical supervision reported that it enabled succession planning through introduction of appropriately skilled younger peers to their clinical practice. Project recommendations are that funding and stakeholder partnerships are necessary to enable health professionals to undertake postgraduate clinical training in paediatrics in rural areas. The partnership should include education providers (university), rural health service providers (hospital) and community or disability services (government and non-government) with financial recognition of expertise in the rural workforce for clinical supervision. The training experience was reported as a very positive experience from trainees, families, clinical supervisors, managers, academics and paediatricians. Lack of continued funding to educate skilled postgraduate paediatric physiotherapy clinicians means that rural children with physical disabilities will continue to be disadvantaged.

Key words: health career path, paediatrics, physiotherapy, rural health professional education, rural workforce issues.

Context

This project reports on 'Building capacity in the rural physiotherapy workforce: a paediatric training partnership'; a 6-month clinical and academic training program for two rural physiotherapists in the Goulburn Valley, Victoria, Australia. It followed a successful pilot during which two rural physiotherapists completed a 12-month program.

The health workforce shortage and mal-distribution, including of physiotherapists, in rural and remote Australia and other countries is well documented¹⁻⁵. The World Health Organization (WHO) recently published its first global policy for improving the retention of health workers in rural and remote places⁶. The first recommendation is education, aiming:

To design continuing education and professional development programmes that meet the needs of rural health workers and that are accessible from where they live and work, so as to support their retention⁶

Additionally:

to be successful, continuing education needs to be linked to career paths, as well as with other education interventions⁶.

The project met WHO recommendations, and also those of the Victorian State Government Strategic Framework for Paediatric Services, which has the aim of offering care that is in the community, close to home where possible, cost effective and sustainable^{7,8}.

Partnerships were established between the University of Melbourne, state and federal government health sectors, the Royal Children's Hospital Melbourne, Goulburn Valley Health, Shepparton, Victorian Early Childhood Intervention Services and SCOPE (a non-government disability services organisation). The first pilot program had demonstrated the effectiveness of the partnerships, with one physiotherapist now leading a rural paediatric rehabilitation service and the other providing a new paediatric physiotherapy clinical service in a rural hospital. An independent evaluation of the pilot program recommended that, because the strategy was effective in recruitment and retention, further funding was crucial to support future programs to incorporate and build on the strengths of the project⁹.

This paper reports a funding grant from the National Rural Primary Health Projects Initiative of the Australian Government Department of Health and Ageing, which enabled the pilot project to be replicated. This enabled 6 months of full-time employment/training for two rural physiotherapists, based in Shepparton, a town in the

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Goulburn Valley. The Australian Bureau of Statistics data in 2011¹⁰ indicates that 20% of the population in the Goulburn Statistical Region was less than 14 years of age (42 560), exceeding the metropolitan average of 18%. However, the Goulburn Valley region was serviced by the equivalent of only one full-time paediatric physiotherapist, which an earlier mapping study demonstrated was grossly inadequate¹¹.

Goulburn Valley Health hosted the trainees full-time. Academic and clinical placements in clinics and community services were coordinated and supervised by a senior paediatric clinical physiotherapist who was also an academic paediatric lecturer at Melbourne University. A reference group, partnership committee and education subcommittee supported the academic/clinician role.

Issues

There is a lack of paediatric physiotherapy expertise in rural areas, with little opportunity for clinical training and the only postgraduate education in paediatric physiotherapy practice available within the metropolitan specialist hospital sector. This results in fragmented paediatric physiotherapy services in the community and necessitates rural families to travel to metropolitan services, which is costly and disruptive to family life¹². Paediatrics is a specialty area of physiotherapy practice¹³ and lack of locally available educational pathways contributes to the shortage in rural areas. The workforce issues were highlighted in the paediatric physiotherapy mapping study¹¹, a literature review and feedback from the pilot training program¹⁴.

The mapping study documented paediatric physiotherapy services in the Goulburn Valley region across all sectors including early childhood, community, government and nongovernment children's disability and hospital outpatient services¹¹. It identified major service gaps and waiting lists for parents seeking advice or treatment for their children, for assessment of delayed infant development, and for paediatric orthopaedic physiotherapy and paediatric rehabilitation, including in the disability sector. One paediatrician conceded that they had not referred children requiring physiotherapy to the hospital, because there were insufficient skilled practitioners to provide the service.

Physiotherapy outpatient services for children were only available part-time at Goulburn Valley hospital for half a day per week, at the government early childhood intervention services on 2 days per week, and at a non-government disability service provider on 3 days per week. No paediatric physiotherapy was available at the smaller rural hospitals or in private paediatric physiotherapy practice¹¹.

It has been demonstrated in a recent study that, in paediatric practice, rural physiotherapists who have low self-efficacy demonstrate low levels of confidence in their ability in paediatrics and hold the belief that they lack the skills and attributes to practice. Self-efficacy is defined as a person's judgement of their capabilities to organise and designate courses of action required to attain designated levels of performance¹⁵.

Evaluation of this project used purpose-built questionnaires, because, as reported in the Australian Government's *Picture of Australia's children 2009* there are no specific indicators to monitor the performance of systems and services available to children and families¹⁶.

Lessons learned

The project improved accessibility paediatric to physiotherapy services in rural Victoria. This was evident by the increased number of referrals, occasions and nature of service (Table 1) and feedback from stakeholders. It improved family-centred practice through more effective communication with families, and increased services meant less waiting time. Another advantage with the interprofessional partnership model improved was coordination with other service providers.

Paediatric physiotherapy outpatient services had increased by 34% after the 6-month training program (Table 1). The

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criteria for referral to outpatients was limited to single-issue conditions and therefore mostly new referrals. Complex cases, following assessment, were referred to specialist early intervention of disability services unless there was a specific acute case. An example of an acute case was a child requiring rehabilitation following brain tumour surgery whose father would lose his job if they had to stay in the metropolitan service. Noted is the increase in presentations for adolescents (140%) and for children of primary school age (44%).

The partnerships developed for the pilot program were consolidated and expanded with regular meetings of the reference group, a partnership committee and an education subcommittee. The reference group comprised a senior hospital administrator and the physiotherapy department head, current and previous directors of physiotherapy at the major metropolitan paediatric hospital, managers of Victorian Early Childhood Intervention Services, a non-government disability services organisation (SCOPE), and two parent consumer representatives. The physiotherapy members volunteered their time. The partnership committee managed the program whilst its education subcommittee guided timetabling and content. It was essential that the project manager was both an academic and a paediatric physiotherapy clinician to develop the timetable, academic content and evaluation.

The training was full-time and included supervised clinical practice and theoretical study similar to a registrar program in medical education (Fig1). Supervision was by senior parttime paediatric physiotherapy clinicians, service providers in the community and at the Royal Children's Hospital in Melbourne, Victoria. Trainees managed a caseload, and participated in meetings, tutorials and presentations. The program focused on evidence -based practice, knowledge of typical bio-psychosocial development and family-centred practice. Feedback was provided regarding competency in assessment, clinical reasoning, prioritising strategies, effectiveness of outcome measures and treatment implementation. Communication processes between partner organisations were important with regard to documentation,

correspondence, and adherence to appropriate referral and reporting procedures.

The capacity and confidence of the trainees to manage complex sub-acute and ambulatory care cases improved, for example the ability and capacity to respond to requests and subsequent referrals from the tertiary hospital to provide rehabilitation following brain or spinal surgery or to respond to referrals of infants with complex developmental disabilities and co-morbidities. Situations in which two physiotherapists are required, such as for serial casting for foot deformities, were managed locally, further reducing families' financial burdens because travel was no longer required to metropolitan services.

Families, clinical supervisors, managers, paediatricians and academic/professional survey responses were very positive. Survey responses from trainees indicated that the trainees improved their self-efficacy¹⁵. Evaluation of the trainees demonstrated that supervision and mentoring developed maturity, confidence and deeper understanding of the importance of family-centred practice.

Since the training program, paediatric physiotherapy services at the regional hospital, Goulburn Valley Health, have increased from one half day to 5 days per week. The Victorian Paediatric Rehabilitation Service recently established a centre there, employing one of the project trainees. The other trainee provides a paediatric physiotherapy service at the rural hospital in Echuca (approximately 50 km north-west of Shepparton) and also at the specialist school. Neither of these services was previously available.

In their responses to an investigator-developed pre- and posttraining survey, both trainees expressed satisfaction with their program, intended to remain in rural paediatric practice and appreciated having a career pathway (Appendix A). Questions were scored on a scale of 1-5 (1 = 'not confident'; 5 = 'very confident'). Confidence in treating infants, pre-school and young children improved from 1.5 to 4.5 and for managing adolescents from 2.5 to 4.5.

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Trainees appreciated the opportunity to work in a multidisciplinary team and gained better awareness of the resilience of families and when to refer to other health professionals. Some comments were:

I am now much more confident in assessing and treating children, particularly younger children. I gained not only a variety of physiotherapy skills but the opportunity to work in a multidisciplinary team where I could gain a broader perspective of children and their families. I have a better awareness of the role of other allied health in early intervention and am more aware of the key questions to ask/signs to look for which indicate referral to other professionals.

Through greater experience in working with children and their families I have confirmed to myself that paediatrics is an area I enjoy and want to continue working in. Several families have also shown me how resilient to challenges people can be, and how important the family unit is in providing a supportive environment for each other.

Three families who gave informed consent were surveyed. All expressed appreciation of the local service and the training program (Appendix B):

The service has been wonderful and meant I could access services locally. As a new mother not having to travel has helped. [The trainee] has been fantastic. She is very caring to the whole family not just the child.

The physiotherapy has been a blessing; the physiotherapists are always knowledgeable and understanding of our needs as a family and especially to the needs of [child's name].

The paediatric physiotherapy service has saved my family financially, physically and mentally.

Managers of two rural-hospital-based allied health teams were surveyed. They noted that paediatrics is considered a specialist field and that clinician's skills are undervalued (Appendix C): I have been the physiotherapist who in the past was left to manage the paediatrics clients because most of the other physiotherapists have been reluctant to manage children as it is viewed as a specialist field.

It is so very important in rural practice especially where clinicians are required to work as generalist/specialists. The skills required to do this are undervalued and the stress under which some generalist clinicians' work is unrecognised.

The physiotherapy manager of the Royal Children's Hospital wrote that it assisted management and patient care, with improved accessibility while acknowledging the significant workforce shortage in physiotherapy:

This initiative has assisted (the specialist hospital) manage patients from the region by making services more accessible and available in their own community such as patients requiring rehabilitation, intensive exercise programs or pain management.

We offer our full support to this program and will assist in any way that we can to ensure that it is ongoing as the shortage of physiotherapists, especially paediatric physiotherapists, in rural areas is significant. Specialized training programs such as this, promote an attractive career path and will encourage rural practitioners to remain in rural areas. The lack of such training programs has had a significant impact on workforce limitations in rural areas and may well be one of the reasons that it has been so difficult to maintain services in some country areas.

Another tertiary hospital senior clinician responded that it was difficult finding physiotherapists in the country with the experience and confidence to manage clients, for example in pain management programs. They added that the benefits would extend beyond the expertise to the mentoring of other clinicians and acting as a consultant to determine whether referral to the specialist hospital was indicated.



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It is very difficult finding physiotherapists in the country with the confidence and experience to continue management of clients we see.

Several clients seen at Royal Children's Hospital pain management clinic have been referred on to physiotherapists in this training program, I am very pleased to have this resource available.

In the country one has to use what resources one has available. A postgraduate trained physiotherapist would be great to have in a community, but the value would extend beyond that, providing support to other physiotherapists in the region — to assist in assessing, or to get advice on management, rather than have to refer the client on to the city as is generally the case at the moment.

The clinical supervisors were impressed with the trainees' dedication, application and attitude to the training program. They reported on the trainees' competency. The program enabled one supervisor to attend a professional development program because the trainee covered her caseload. The training program was welcomed because it assisted with service provision within an acknowledged workforce shortage. Prospects of workforce sustainability were important to some clinicians as they approach retirement age and have insufficient replacements.

The supervisors reinforced that managing paediatric caseloads is a specialist field where treatment must be timely and, to be effective, often intensive:

[Trainee A] has great passion and intensity for her work in paediatric physiotherapy. She listens carefully to families, plans and develops physiotherapy interventions in response to their needs. [The trainee] has provided ongoing home programs for families independently and within a multidisciplinary team. [The trainee] provided ongoing physiotherapy intervention whilst the specialist children's services physiotherapist was away on study leave for eight weeks, which meant that children's individual therapy goals were not interrupted, especially at significant times e.g. postsurgery. [The trainee] was able to highlight the issues for children who require ongoing physiotherapy services within the community health sector, for those children waiting for allocation or for those who may not be eligible for early childhood services but who present with significant needs.

(Trainee B) has great energy and enthusiasm for the development of rural paediatric services, particularly within the Goulburn Valley. [The trainee] worked well within a multidisciplinary team setting and organized a weekly sensorimotor group, which she conducted with an Occupational Therapist, for children attending preschool, which received excellent parent feedback. Parents enjoyed [the trainee's] friendly manner and the way she challenged and supported the child and family.

Three rural paediatricians were supportive of the training program. One commented that the strength of this model is that the driver was the university, the administrator was the health service and the providers a combination of the university, the hospital and community services. Another stated that there was a massive need for paediatric physiotherapists in rural areas.

The training program built on the Victorian Paediatric Clinical Network guiding principles and policies of the Victorian Government's strategic plan for paediatric services^{7,8}. Its first mission is to advocate for the appropriate development of the paediatrics and child health service system. The principles were to have high quality and safe services built on evidence, knowledge and research; childand family-centred care; employ a workforce that is skilled and flexible; and provide care that is in the community, close to home where possible, cost-effective and sustainable.

Public support for this project was highlighted with media newspaper articles and photographs¹⁷⁻¹⁹.

This project commenced as a hospital-based quality improvement initiative in response to the acute rural paediatric physiotherapy workforce shortage. It was not a research initiative and therefore did not require ethics





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Table 1: GVHealth outpatient paediatric physiotherapy statistics: occasions of contact six months prior and after6-month training program

Age group	Occasions of service		
	Pre-training program 1 Nov – 30 April 2008	Post-training program 1 May – 30 Oct 2009	Percentage increase
Infant 0–2 years	225	245	8%
Pre-school 3–5 years	29	40	28%
Child 6–12 years	66	117	44%
Adolescent 13–18 years	96	231	140%
Total	416	633	34%



Figure 1: The rural paediatric physiotherapy training model

Recommendations from the 'Building rural capacity' project are to:

- provide structured postgraduate paediatric physiotherapy clinical training in rural health services to enhance family and child access to local, timely, skilled physiotherapy services
- fund postgraduate paediatric rural physiotherapy clinical training to increase clinicians' knowledge, skills and confidence and to provide a career path for rural clinicians
- replicate the 'Building capacity in the rural physiotherapy workforce: a paediatric training partnership' model in other rural geographical areas and in other professions

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• develop specific indicators to monitor the performance of systems and services that are available to children and families.

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Appendix A: 'Building capacity in the rural physiotherapy workforce: a paediatric training partnership': Preand post-training program survey



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Appendix B: 'Building capacity in the rural physiotherapy workforce: a paediatric training partnership': parent survey

Questions
1. Your role: Parent, Carer, Other
Comment:
2. Service location
Comment:
3. Age group of child: 0-1 years, 1-5 years, 6-10 years, 11-14 years, 15-18 years
Comment:
4. Location of physiotherapy services accessed
Comment:
5. Service provided: outpatient, inpatient, home, school, other
Comment:
6. Do you think there is a shortage of paediatric physiotherapists in rural areas? Yes, No, Don't know
Comment:
7. Are you aware of the post-graduate physiotherapy training program in the Goulburn Valley?
Comment:
8. Can you rate the effect of the rural paediatric training program on the health workforce? No effect, some effect, good effect, very
good effect, excellent effect
Comment:
9. Rate the importance of Postgraduate Clinical Training in specialty areas such as paediatrics: not important, somewhat important, important, very important, essential
Comment;
10. Has the local paediatric physiotherapy service been cost-effective? Have you been able to access a public health service locally or not have to travel to metropolitan hospitals, or not applicable
Comment
11. Has the Paediatric Physiotherapy Service been satisfactory?
Comment:
12. Any other comments?
,



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Appendix C: 'Building capacity in the rural physiotherapy workforce: a paediatric training partnership': manager survey

Questions	
1. Role: Manager, Health Professional, Other	
Comment:	
2. Area of involvement: Paediatric Practice, Generalist/Paediatric, Other	
Comment:	
3. Age group of paediatric patients seen at health service: Not applicable, 0-6 or 8 years, 0 -18 years	
Comment:	
4. Services provided: outpatient, inpatient, home, school, other	
Comment:	
5. Do you think there is a shortage of paediatric physiotherapists in rural areas? Yes, No, Don't know	
Comment:	
6. Are you aware of the post-graduate physiotherapy training program in the Goulburn Valley?	
Comment:	
7. Can you rate the effect of the rural paediatric training program on the health workforce? No effect, some effect, good effect	, very
good effect, excellent effect	
Comment:	
8. Rate the importance of Postgraduate Clinical Training in specialty areas such as paediatrics : not important, somewhat impo	rtant,
important, very important, essential	
Comment:	
9. Should the Postgraduate Paediatric clinical training be replicated?	
Comment	
10. Can this training program model be translated to other professions?	
Comment:	
11. Has the paediatric training program service been satisfactory?	
12. Any other comments?	