



ALLIED HEALTH

**Physiotherapy
Extended Scope Practice: Phase 1**

Final Report

June 2008

Table of Contents

1.0	Executive Summary	3
	Proposed ESP initiatives and supporting literature	3
	Recommendations	4
2.0	List of Abbreviations	5
3.0	Acknowledgements	5
4.0	Introduction, Background & Overview	6
5.0	CAHE Literature review	7
6.0	Current Practice Report	69
7.0	Comparative Report	93
	Scope and Rationale table	103
8.0	Appendix	109
	8.1 Summary of the Minter Ellison report	110

1.0 Executive Summary

This two part project aimed to obtain local, national and international information on the feasibility of Extended Scope Practice – Physiotherapy. The first part consisted of a literature review of national and international research and the second part of local focus groups to assess the current practice environment of physiotherapists in ACT Health and Disability, Housing and Community Services (DHCS).

The outcome of the Physiotherapy Extended Scope Practice: Phase 1 has highlighted five clinical areas that the project reference group considers warrant further investigation. Common themes in these areas were extension of diagnostics, extension of practice consultation and extension of therapeutics. It is reasonable to assume that these Extended Scope of Practice physiotherapy roles could make a significant positive impact on patient access and quality of care, as well as workforce flexibility and capacity within ACT Health and DHCS.

There were many common themes on the suggested impact of Extended Scope Practice physiotherapy roles on patient care, including a reduction in patient waiting times, a decrease in the length and number of “stops” in the patient journey and timely access to appropriate treatment and investigations.

A comparison of the roles identified locally, with those roles identified in the literature, was undertaken to assess whether they had been effective. Where these roles were recognised as effective, the strategies identified as helping successful implementation were described.

Five clinical areas for Extended Scope Practice roles were considered:

- i. Orthopaedics
- ii. Emergency Department
- iii. Obstetrics
- iv. Gynaecology
- v. Developmental delay/disability - Therapy ACT

i. Orthopaedics

The focus groups identified that services could be improved by establishing an Extended Scope Practice physiotherapy clinic which provides assessment to clients from the orthopaedic surgical waiting list. The literature supports this observation. ESP tasks may include ordering of diagnostic tests, limited prescribing, extended practice consultation and prescription and administration of corticosteroid injections.

Extended Scope Practice physiotherapy roles that target surgical waiting lists can reduce the transfer rate to surgery and have a positive impact upon patient waiting times. They can also reduce the burden on the medical profession and lead to higher levels of patient satisfaction.

ii. Emergency Department

ACT Health has a physiotherapy role as the primary contact for acute musculoskeletal injuries within its emergency department. Enhancement of this role was identified around autonomous management of simple fractures and wounds, independent interpretation of X-rays and limited prescribing rights. The literature supports this as a strategy to reduce patient waiting times/ cubicle occupancy time, reduce the burden on medical staff and improve clinical management.

iii. Obstetrics

ACT Health has a physiotherapy role within the Obstetric Anal Sphincter Injuries clinic. The focus groups identified a potential to formalise and extend this role to include limited pharmaceutical prescribing, extended diagnostics and independent wound management.

iv. Gynaecology

The focus groups identified that services could be improved by establishing an Extended Scope Practice physiotherapy clinic which provides assessment to clients from the Gynaecology waiting list to reduce improve surgical waiting times. ESP tasks may include ordering of diagnostic tests and extended practice consultation/referral to Medical Specialists. The literature in the area of Obstetrics and Gynaecology is silent, however, benefits are likely to be similar to those in an

orthopaedic setting; including reduced waiting times, improved clinical management, reduced burden on medical personnel and increased patient satisfaction.

v. Developmental delay/disability

Focus groups identified two potential Extended Scope Practice physiotherapy roles for future investigation within Therapy ACT; a hip surveillance clinic for this client group with hip dysplasia and a Botulinum Toxin injection clinic. Successful implementation of these roles would require engagement from the medical Paediatric Orthopaedic speciality, which is currently in a period of transition. There is a limited amount of literature in the paediatric arena, however what is available is supportive of initiatives in this field.

An additional area warranting future consideration is Botulinum Toxin injection clinics that encompass both adult and paediatric client groups, providing a service for clients with acute and chronic neurological conditions.

Implementation Strategies

The literature highlighted that there are several key components required for successful implementation of an Extended Scope Practice physiotherapy role:

- Supportive inter-professional partnerships between health team members
- Appropriate training (both formal and informal)
- Proactive risk management and suitable planning to minimise risks and ensure legal coverage.
- Removal of legislation/regulation obstacles
- Maintaining high standards of safe care
- Ongoing education to ensure competency which includes trans-disciplinary learning models to maximise efficiencies and partnerships
- Measurable key performance indicators around organisational, stakeholder and clinical outcomes, to include evaluation of effectiveness
- Demonstrating cost-effectiveness and productivity gain

Recommendations:

1. Undertake a Delphi study to ensure all stakeholders are involved in the planning of a trial phase in the identified Extended Scope Practice areas
2. Project Reference Group to work with the workforce policy and planning unit to overcome barriers, including legislation
3. Project Reference Group to define educational/competency requirements for extended scope practice using Delphi study results
4. Establish a physiotherapy clinic assessing patients on the orthopaedic surgical waiting list with a view to trialing an extended role once it has been established
5. Extend the role within Obstetrics
6. Extend the role within the Emergency Department
7. Establish a physiotherapy role assessing patients on the Gynaecology waiting list
8. Review the environment in the ACT around Therapy ACT, rehabilitation and paediatrics in 12 months to identify whether a trial could be progressed

2.0 List of Abbreviations

ABG	Arterial Blood Gas
ACTES	Australian Capital Territory Equipment Scheme
APA	Australian Physiotherapy Association
CAHE	Centre for Allied Health Evidence
CP	Cerebral Palsy
DHCS	Disability, Housing and Community Services
ESP	Extended Scope of Practice
ESR	Erythrocyte Sedimentation Rate
HP	Health Professional
ICU	Intensive Care Unit
LOS	Length of stay
MBS	Medicare Benefits Scheme
MDT	Multi-disciplinary team
MND	Motor-neurone Disease
MS	Multiple Sclerosis
Mx	Management
NIV	Non-invasive ventilation
PBS	Pharmaceutical Benefits Scheme
PD	Parkinsons Disease
UC	University of Canberra
USS	Ultrasound scan

3.0 Acknowledgements

The Allied Health Adviser and Project Reference Group chair thanks the following people for their helpful contribution and support with this project:

Project Reference Group members
ACT public health physiotherapists
Access Improvement team
Workforce policy and planning unit
Centre for Allied Health Evidence
Project Officer

4.0 Introduction

The ACT Health Workforce Policy and Planning Unit, Allied Health Advisor, physiotherapy service and Disability, Housing and Community Services (DHCS), Therapy ACT agreed to undertake a joint project to scope the feasibility of introducing extended practice roles in physiotherapy in the ACT public sector.

This report is the result of a collaboration with CAHE (Centre for Allied Health Evidence) and presents the findings of a four month project, which aimed to explore the literature on Extended Scope Practice physiotherapy (ESP physiotherapy) and map the local current physiotherapy role in the ACT public sector. The two project arms have been compared and used to develop recommendations regarding the feasibility of extended scope roles within ACT Health and DHCS.

Background/Overview

Like other Australian States and Territories, ACT Health and Therapy ACT are systems facing tremendous challenges, including workforce issues. The workforce issues are cross sectoral and involve multiple stakeholders. To address these issues, ACT Health is working collaboratively to meet the challenges in a changing health environment.

New technologies, changing market choices for workers, the aging workforce, changing community expectations and generational change in attitudes to work participation are all key drivers impacting upon the health and community workforce and how it does and will meet the demands of the population. Additional factors include a population where the percentage of people with a disability and older people with chronic and complex disease is increasing and are being supported by increasingly sophisticated technologies and medications. These factors result in an imperative need to change our models of clinical service delivery.

Globally, health and community industries are exploring new ways of clinical service delivery that has seen the introduction of new support roles and extended practice roles for nursing and allied health. Evidence suggests that these roles can improve quality care and safely and effectively reduce hospital waiting lists, increase productivity by matching activities with the appropriate skill levels and thus relieving demands on more highly specialised health professionals, and increasing access to appropriate treatment. It is possible that this benefit can also be realised within the community sector.

Extended practice physiotherapy is an accepted role in the UK, for example, in delivering both primary and secondary care for musculoskeletal services. This role can include case management, ordering and interpreting diagnostic tests (such as scans, x-rays and blood tests), administering certain injections, and directly listing patients for surgery.

This four-month project has scoped the feasibility of introducing extended practice physiotherapy within ACT Health and DHCS, Therapy ACT. In doing so, it supports the Australian National Health Workforce Framework, the Australian Physiotherapy Association statement and the ACT Government's Canberra Plan vision for building a stronger community. It also aligns with Objectives 1 and 2 of the *ACT Health Workforce Plan 2005-2010*, a range of ACT Health service plans, including, but not exclusive to, the Surgical Services Plan and the ACT Health philosophy of collaboration. In addition, it supports some key aspects of the DHCS Service Delivery Platform namely working in partnership, workforce sustainability and best practice and innovation.



dhcs|ACT

**A SYSTEMATIC REVIEW OF
THE LITERATURE ON
*Extended Scope of Practice
Physiotherapy*^I**

Report prepared for

ACT Health Workforce Policy and Planning Unit,
Allied Health Advisor,
ACT Physiotherapy Service
ACT Department of Disability, Housing and Community Services
[DHCS]

Prepared by

CAHE review team
Centre for Allied Health Evidence
University of South Australia
Ph: 08 83022085
Fax: 08 83022766
Email saravana.kumar@unisa.edu.au



RESEARCH CENTRE RESPONSIBLE FOR THE PROJECT

Centre for Allied Health Evidence

A Collaborating Centre of Joanna Briggs Institute
School of Health Sciences
City East Campus
University of South Australia
Adelaide
South Australia 5000
Website: www.unisa.edu.au/cahe

Centre Director

Professor Karen Grimmer-Somers
Phone: (08) 8302 2769
Fax: (08) 8302 2766
Email: karen.grimmer-somers@unisa.edu.au

Project officers

Ms Judith Lowe
Mr Matt Prior
Phone; (08) 8302 2059
Fax : (08) 8302 2766
Email : judith.lowe@unisa.edu.au

Project administered by

Ms. Madeleine Mallee
Business Services Officer
Business Development Unit
Division of Health Sciences
University of South Australia
Phone: (08) 8302 2121
Fax: (08) 8302 1472
Email: madeleine.mallee@unisa.edu.au

Glossary of terms

ESP	Extended Scope of Practice
NHS	National Health Service [UK]
EWTD	European Working Time Directive
NICE	National Institute of Clinical Excellence [UK]
APA	Australian Physiotherapy Association
CSP	Chartered Society of Physiotherapy
MBS	Medicare Benefits Scheme

Executive Summary

Widespread changes are occurring in the planning and provision of healthcare services. Multiple factors are driving these changes, including the rising needs of an ageing population, advanced medical technologies and complex workforce issues. Maximising the use of the available workforce, through extended scopes of practice, has been suggested as a means of achieving both workforce and client health benefits.

The ACT Health Workforce Policy and Planning Unit, Allied Health Advisor, physiotherapy service and ACT Department of Disability, Housing and Community Services [DHCS] have agreed to undertake a joint project to scope the feasibility of introducing extended roles in Physiotherapy within ACT Health and DHCS. The overarching aim of the current project was to scope the feasibility of introducing extended practice roles in physiotherapy within ACT Health and DHCS. A literature search was conducted to identify relevant literature, both peer-reviewed and grey literature, pertaining to extended scope of practice [ESP] in physiotherapy.

The majority of the identified literature described ESP initiatives within the context of orthopaedic and musculoskeletal physiotherapy initiatives. In particular, two separate areas – orthopaedic outpatient clinics and emergency department physiotherapy – were considered. Discussion of other suitable ESP roles remains largely theoretical. However, many of the reported ESP physiotherapy initiatives described in this review include some aspects of diagnostic imaging and prescribing rights that are not permissible under current Australian legislation. New forms of physiotherapy practice necessitate legislative and regulatory change at both State and Federal levels.

The definition of extended practice, and extended scope practitioners, is not straightforward due to the variety of titles used, multiplicity of definitions and variety of practice within each individual post. However, there appears to be agreement that any extended scope of practice incorporates some aspect of job enhancement or expansion, involving the areas of extended therapeutics, diagnostics and practice consultation.

The literature is generally supportive of ESP roles in physiotherapy; however much of this support is anecdotal and lacks quantification. Many reported ESP roles were largely driven by organizational and politically-motivated factors. As such, the reported evaluations of these initiatives have largely focused on organizational outcomes, and thus the clinical efficacy and safety of many such initiatives is uncertain. The evaluation of many initiatives was also done in an ad hoc and poorly planned fashion, thereby limiting the validity of the available data.

Consequently, whilst such roles are frequently advocated in the literature, consideration needs to be given to the applicability of the information to the Australian clinical setting; particularly within ACT Health and DHCS. Whilst benefits may be recorded for a specific ESP initiative, they also must be weighed against the costs and needs for the specific service. Given the relatively narrow scope of cases in which ESP physiotherapy can appropriately consult, caseloads may be too specific to warrant justification. Given the relative lack of quantitative data to support numerous key performance indicators described in the literature, ACT Health and DHCS should, prior to the development of any ESP initiative, ensure clear evaluation strategies are incorporated at the planning stage of any pilot or developmental phase.

Recommendations

We define an ESP physiotherapist as a clinical specialist or expert clinician who has the opportunity to develop and demonstrate expertise beyond the currently recognised scope of practice. This includes some aspects of job enhancement or expansion, involving the areas of extended therapeutics, diagnostics and practice consultation.

1. We recommend that there are sufficient demonstrable benefits to warrant trials of ESP initiatives within ACT Health and DHCS. Benefits include reduced patient waiting time and burden on medical staff, we caution however, that at present, there is insufficient evidence to support claims that ESP initiatives improve patient clinical outcomes.

The majority of ESP initiatives are described within the context of orthopaedic outpatient clinics and emergency department (predominantly musculoskeletal trauma) settings. Thus statements of the efficacy of ESP pertain to these areas only. Areas in which further ESP roles could be developed are proposed as neurology and cardio-respiratory. Should ACT Health/DHCS identify gaps in practice, ESP trials in these areas may be warranted.

2. We strongly recommend that due consideration is given to barriers and enablers before implementing any ESP initiative. Elements that are vital to the success of ESP physiotherapy posts include medical support, clear role definition, and clear strategies that underpin rigorous establishment and evaluation of clinical competencies as part of a wider risk management plan.

Similarly, the organisational impact of any ESP initiative must be considered. Whilst benefits may be found for a specific ESP initiative, they must be weighed against costs and stakeholder satisfaction. Consideration must also be given to the patient load before implementing any physiotherapy ESP role, as it has been suggested that ESP caseloads may be too specific to warrant justification. Such issues are dependent on the specific ESP initiative being undertaken, and the results of the ACT Health and DHCS Physiotherapy Practice Review.

3. We strongly recommend seeking clarification on current legislative requirements prior to establishing any ESP initiative within ACT Health and DHCS. Many of the reported initiatives found in this review involve some aspects of scope extension, notably re diagnostic imaging and prescribing rights that are not permissible under current ACT legislation. New forms of physiotherapy practice may necessitate legislative and regulatory change at both State and Commonwealth levels. Identifying requisite changes is dependent on the ESP initiative to be trialled, and beyond the scope of this review.
4. We recommend that clear strategies and plans for evaluation be implemented well in advance, should any ESP initiative be trialled. Little data is available for the clinical efficacy of reported ESP initiatives, due largely to the *ad hoc* nature of program establishment and evaluation. Key outcomes should be defined in advance, coupled with clear evaluation strategies. We recommend that evaluation incorporate organisational, stakeholder and clinical outcomes.
5. We recommend that ESP physiotherapists have a minimum of 5 years clinical experience post-entry-level physiotherapy qualification, of which 3 years should be within the relevant specialist area (eg. orthopaedics). Completion of further post-graduate study or accredited training courses is desirable at present, and should be essential once ESP programs become better established.

As there is uncertainty in the literature with respect to the requisite training for ESP physiotherapists, appropriate training methods should be planned following consideration of the precise nature of proposed ESP roles. Training may be by formal or informal methods, or by combination approaches. Consultation with all stakeholders (including medical/nursing personnel) is recommended to establish the most appropriate training programs.

Contents

Executive Summary	10
1. Introduction	14
2. Background	15
3. Working definition of Extended Scope of Practice as pertinent to physiotherapy	16
4. Aims & Research Questions	17
4.1 Aims	17
4.2 Research Questions	17
5. Methodology	18
5.1 Search Strategy	18
5.2 Search Terms	18
5.3 Literature Sources	18
5.4 Inclusion Criteria	19
5.5 Exclusion Criteria	20
5.6 Data Extraction & Synthesis	20
6. Results	22
6.1 Search Results	22
6.2 Core Themes/Research Questions	22
6.2.1 What is the definition of extended scope of practice, as relevant to physiotherapy?	23
6.2.2 What current ESP initiatives within physiotherapy/physical therapy have been reported?	26
a. Orthopaedic Initiatives	26
b. Emergency Department Initiatives	29
c. Other reported initiatives	31
6.2.3 What is the rationale behind the development of ESP physiotherapy initiatives reported within the literature?	33
6.2.4 What has been the evaluation of these initiatives?	35
a. Peer Reviewed Literature	39
b. Grey Literature	44
c. ESP Perspective Code	45
6.2.5 What barriers and enablers are evident from the literature surrounding emerging roles?	48
6.2.6 What are the professional requirements for uptake of the ESP roles, and what is the implication of this for future ESP posts in the ACT?	52
6.2.7 What organisational and legislative change has been required to accommodate the extension of scope?	55
6.2.8 What is the broad applicability of the evidence to the perspectives of the ACT?	59
Appendix 1. References	61
Appendix 2. Search Results – Peer-Reviewed Literature	67
Appendix 3. Search Results – Grey Literature	68

List of Tables and Figures

Table 1. Level of evidence (Peer-reviewed literature)	22
Table 2. Country of origin (Peer-reviewed literature)	22
Table 3. Summary of evidence for evaluation of ESP initiatives	37
Table 4. ESP perspective codes	46
Table 5. ESP perspective coding of literature	47
Figure 1. Diagrammatic representation of aims and methods of current project	21
Figure 2. Driving factors for ESP initiatives	34
Figure 3. Cross-over of patient-centric and profession-centric initiatives	34

1.

Introduction

Widespread changes are occurring in the planning and provision of healthcare services. Multiple factors are driving these changes, including the rising needs of an increasing and ageing population, advanced medical capabilities/technologies and complex workforce issues. The Australian health system, like many others nationally, is facing the same workforce challenges aligned with a shortage of medical practitioners, and seeks to maximise the potential contributions from other health professionals in order to meet the health care needs of its community. Extending and advancing the practice of allied health professionals has been utilised internationally, with evidence suggesting that these extended roles can potentially safely and effectively reduce the workload on existing staff and improve patient care (i.e. reduced waiting times, more appropriate care pathways) in a cost effective manner.

Increased debate over the role extension of allied health staff was recently prompted by the findings of the Productivity Commission's report into the Australian Health Workforce (Productivity Commission 2005) which examined issues impacting on the health workforce including the supply of, and demand for, health workforce professionals and propose solutions to ensure the continued delivery of quality healthcare over the next 10 years. The commission endorsed the development of national accreditation and registration agencies in order to facilitate innovative work force design and strongly supported the concept of extended scope of practice using these agencies and an extended MBS rebate system. The commission recommended that services should be delivered by staff with the most cost-effective training and qualification to provide safe, quality care (Productivity Commission 2005).

As highly skilled, autonomous practitioners grounded in evidence-based practice and clinical reasoning, physiotherapists are ideally placed to fully use their skills via advanced practice roles. This may also provide a route to improve career opportunities, raising expert practitioners' job satisfaction and potentially increasing retention within the profession (Bennett & Grant 2004; APA [WA Branch] 2005). In light of its' mandate to improve outcomes for clients, the optimal use of workforce skills is seen as a potential method to ensure best health outcomes.

2.

Background

Like other Australian states and territories, the ACT health system is facing tremendous challenges, including those pertaining to workforce issues. Technological and scientific advancement, changing market choices for workers, changes in beliefs regarding workforce organisation, healthcare delivery and community expectations all influence the health workforce and how it meets the healthcare needs of the community. The health and demographic characteristics of the ACT community are important considerations; due to the national trend of an ageing population, healthcare consumers are expected to increasingly present with chronic and complex diseases, requiring sophisticated technologies, prolonged medication use and changes in the mode of delivery of services.

As a response, innovative methods of meeting healthcare needs and maximising the use of the available workforce have been investigated in numerous settings. One such proposed method to achieve both workforce and client health benefits is the advancement and/or extension of existing professional roles within nursing and allied health. This approach has been strongly supported by Governments and physiotherapy professional bodies in other countries, notably in the UK, via the NHS Modernisation Agency and the Chartered Society of Physiotherapy (Chartered Society of Physiotherapy [CSP] 2001; 2002), and Canada (Woodhouse 2006).

Whilst less information is available in the Australian context, extended scope of practice [ESP] physiotherapy is widely accepted within primary and secondary care in the United Kingdom. There is evidence to suggest that this extension of practice can result in numerous benefits, including successfully reducing demand on doctors and providing clients with improved access to appropriate services in a safe and cost efficient manner. The ACT Health Workforce Policy and Planning Unit, Allied Health Advisor, physiotherapy service and ACT Department of Disability, Housing and Community Services [DHCS] have agreed to undertake a joint project to scope the feasibility of introducing extended roles in Physiotherapy within ACT Health and DHCS.

3. Working definition of Extended Scope of Practice as pertinent to physiotherapy

In order to conduct a literature review in this area, it was essential to have a working definition of extended scope of practice as it applies to the practice of physiotherapy. However, the definition of extended practice is not straightforward due to the variety of titles used (Clinical specialists, advanced practitioners, consultant therapists), multiplicity of definitions and variety of practice within each individual post.

However, for the purposes of this review we have considered the definition of ESP in physiotherapy to be:

An ESP physiotherapist is a clinical specialist, who has the opportunity to develop and demonstrate expertise beyond the currently recognised scope of practice, including some aspect of job enhancement or expansion, involving the areas of extended therapeutics, diagnostics and practice consultation.

This definition was to aid the literature review process and provide a starting point for the discussion surrounding this topic. At all levels of physiotherapy practice the paramount focus is the achievement of optimal outcomes for the client. This review aimed to maintain a patient-centric approach when approaching the evidence and evaluation regarding ESP physiotherapy; however the definition was framed so as to best create a distinction between an extended scope and 'standard' practitioner, which best serves this review. Further consideration of extended scope practitioner definitions are discussed within the results of this literature review.

4. Aims & Research Questions

4.1

Aims

The overarching aim of the current project was to scope the feasibility of introducing extended practice roles in physiotherapy within ACT Health & DHCS. Within the aforementioned aim are several key objectives:

- Undertake a structured literature review of physiotherapy extended scope of practice
- Identify the key themes which emerge from this literature review
- Deliver an analysis of current physiotherapy extended scope of practice issues internationally, nationally and in ACT Health and DHCS
- Identify barriers and enablers from the literature regarding the development and implementation of physiotherapy ESP roles
- Provide recommendations for the feasibility of subsequent phases exploring extended physiotherapy practice roles, including possible trials within ACT Health and DHCS (Phase 2 as defined by ACT Health and DHCS).

4.2

Research Questions

- What is the definition of extended scope of practice, as relevant to physiotherapy?
- What barriers and enablers are evident from the literature surrounding emerging roles?
- What current ESP initiatives within physiotherapy/physical therapy have been reported?
- What has been the outcome of evaluation of these initiatives?
- What are the professional requirements for uptake of the ESP roles (i.e. education, training, and accreditation) and what is the implication of this for future ESP posts in the ACT?
- What organisational and legislative change has been required to accommodate the extension of scope?
- What is the broad applicability of the evidence to the perspectives of the ACT?
- Other miscellaneous themes that may become apparent and relevant upon appraisal of the literature.

* The aforementioned aims and research questions will also be addressed by the wider report, which will encompass this literature review, the ACT Health and DHCS Extended Physiotherapy Practice Review, Extended Practice Comparison Report, Feasibility of Extended Practice Report and Recommendations Report.

5. Methodology

5.1

Search Strategy

A two part search strategy, encompassing both peer-reviewed and grey literature, was applied, encompassing search terms to cover professional role change and extended role duties specified as 'of interest' for the purposes of this review. Terms were used separately, and combined together using Boolean operators and Mesh terminology.

5.2

Professional role search keywords:

Search Terms

- Physiotherap\$, physical therap\$ Allied Health
- Extended scope, ESP
- Advanced practice
- Clinical specialist;
- Task Substitution
- Workforce planning
- Innovative practice
- Task change

Extended scope tasks search terms:

- Diagnostic\$, radiation;
- Prescription, prescrib\$, pharmaceutical, medication;
- Injection, invasive;
- Direct listing, surgery, pre-op\$, post-op\$.

5.3

Literature Sources

Peer-reviewed Literature:

Electronic:

- Databases: Cochrane, AMED, Medline, Ageline, Ovid, Embase, PEDro, PubMed, Cinahl, Web of Science, Google Scholar

Manual:

- Reference lists from appropriate peer-reviewed literature were examined to identify further topical literature satisfying the specified inclusion criteria, with full text articles gathered as relevant.

Grey Literature:

Electronic:

- Internet search engines (Google, Yahoo)
- Websites of known professional associations (eg Australian Physiotherapy Association)

Manual:

- Reference lists of appropriate peer-reviewed and grey literature were examined to identify further topical literature satisfying the specified inclusion criteria, with full text documents gathered as relevant.

Personal Contact:

- Key associations/organisations were contacted to identify and source internally-created literature that were not publicly available. Such groups included:
 - Australian Physiotherapy Association (APA);
 - Australian State and Territory Physiotherapy Associations and Registration Boards
 - ACT Health

5.4

Inclusion Criteria

Peer-reviewed Literature

- Articles dealing specifically with physiotherapy/physical therapy practitioners
- No limit on publication location or study design
- English language only
- Date of publication 1998-2008.

Publication date limits were applied as extended roles are a relatively new and continually evolving concept within physiotherapy. Furthermore, what may have been considered an 'extended role' previously is likely to have been since accepted into mainstream 'core practice'.

Grey Literature

- Grey literature articles (eg reports, position statements) dealing specifically with physiotherapy/physical therapy practitioners in ESP roles
- No limit on publication design
- English language only

- Published/produced in Australia only
- Date of publication 2003-2008

Due to the abundance of grey literature and the wide debate surrounding this topic in the past ten years, a reduced grey literature search strategy was necessary to extract the most recent and valuable additions. Similar to the justification for publication date limits for peer-reviewed literature, themes expressed in earlier grey literature are considered likely to have been superseded by more recent resources.

5.5

Peer-reviewed Literature

Exclusion Criteria

- Literature dealing with advanced practice in other professions was not included in the themed results; however it was eligible to inform discussion where literature was lacking in key areas regarding the extended scope of practice of physiotherapists.
- Literature dealing with physiotherapists acting in core roles as opposed to extended scope roles.

Grey Literature

- Literature dealing with physiotherapists acting in core roles as opposed to extended scope roles.
- Literature describing extended scope of practice outside of the Australian setting.

5.6

Data Extraction & Synthesis

The abstracts of the identified literature were screened for relevance. Articles deemed relevant were sourced in full text and assessed for both quality and content.

Thematic data extraction from the identified literature was conducted in order to address the key issues and questions of the review. Information was extracted from the literature using custom-built descriptive data extraction templates, and was utilised to inform discussion of the key questions of stage two. It was originally intended to conduct a quantitative data synthesis of quality trials on the outcome of physiotherapy ESP; however this was not possible due to the heterogeneity of the identified literature; most notably with respect to measures of outcome.

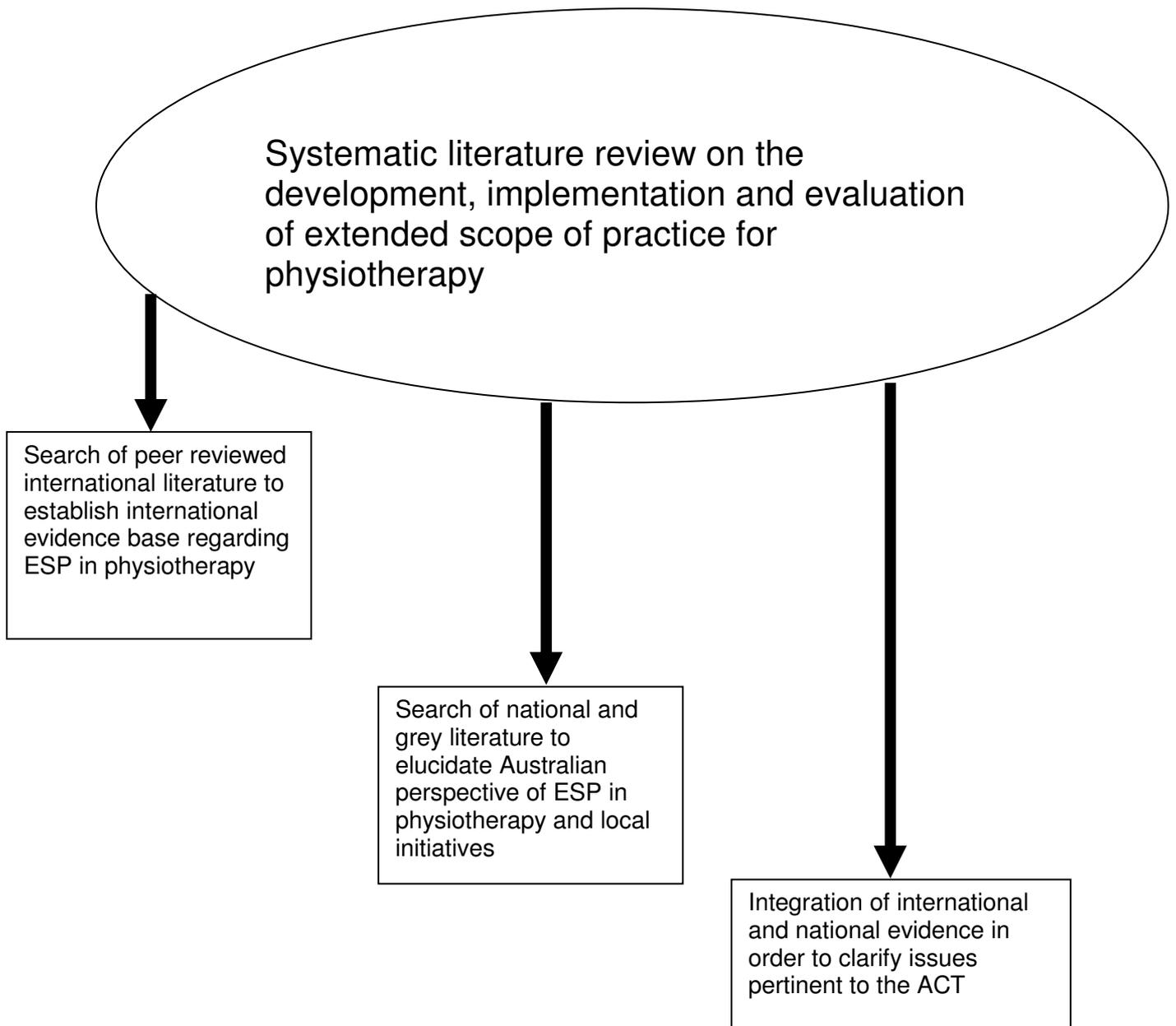


Figure 1. Diagrammatic representation of aims and methods of current project

6. Results

6.1

Search Results

A total of 36 peer-reviewed articles were identified as meeting the inclusion criteria, comprising 4 systematic reviews, 1 narrative review and 31 primary research articles (Table 1). A total of 51 relevant grey literature articles were retrieved that satisfied the inclusion criteria.

(NB: Appendices detailing the full breakdown of search results will be included within the final report)

The majority of identified peer-reviewed literature pertained to the UK setting, however isolated articles originated from Australia and the USA (Table 2). As per the inclusion criteria, all of the identified grey literature originated from Australia.

Table 1. Level of evidence (Peer-reviewed literature)

Level of Evidence	No. of Publications
I Meta –analysis of experimental studies	0
Ia Systematic review	4*
IIa Randomised controlled trial	2
IIb Experimental trials	1
IIIa Observational studies – quantitative	12
IIIb Observational studies – qualitative	2
IV Case studies, case series including audit	13
V Expert opinion or consensus	1
* An additional article was classified as a narrative review & was unable to be classified under this scale	

Table 2. Country of origin (Peer-reviewed Literature)

Country of origin	No. of Publications
UK	33
Australia	2
USA	1

6.2 Core themes/ Research Questions

The central themes of each review, as pertaining to the research questions developed in conjunction with ACT Health and DHCS, were extracted. The results and discussion are presented as follows.

6.2.1

What is the definition of extended scope of practice, as relevant to physiotherapy?

Definition of ESP

The definition of extended practice is not straightforward due to the variety of titles used (Clinical specialists, advanced practitioners, consultant therapists), multiplicity of definitions and variety of practice within each individual post. It should be clearly noted that being a clinical specialist (via completion of the Australian Physiotherapy Association clinical specialisation pathway) is not in itself sufficient to be deemed an Extended Scope Practitioner. The Australian Physiotherapy Association [APA], the peak body representing physiotherapists nationally within Australia, provides the following definition:

‘An ESP physiotherapist is a clinical specialist who has the opportunity to develop and demonstrate expertise beyond the currently recognised scope of practice’ (APA 2007a).

This succinct definition, however, is of limited value in a literature review largely due to the poor definition of what constitutes recognised practice and who constitutes a specialist. It should be acknowledged that in this context, it should be recognised that the term ‘clinical specialist’ is accepted as referring to physiotherapists who have completed the APA specialisation pathway, as that is a recommended precursor to ESP entry (Robertson et al. 2003). However, it is also acknowledged that physiotherapists may be performing roles beyond the currently recognised scope of practice in the absence of formal specialisation training and accreditation.

Whilst the APA states that core practice involves “physical interventions, and/or electrophysical agents, and/or exercise prescription” (APA 2004), they similarly recognise that certain skin penetration techniques do remain core practice (for example acupuncture, dry needling and fine wire electromyography) if used for the purposes of pain relief or to maximise function (APA 2007b).

A more specific framework has been offered by Sibbald et al. (2002), who specified seven categories for interpreting role change in skill mix, within which two have been assessed as applicable in the context of merging roles (McPherson et al. 2004) :

1. Enhancement – increasing the depth of a job by extending the role or skills of a particular group of workers.
2. Substitution – expanding the breadth of a job by working across professional boundaries, or exchanging one type of worker for another whilst maintaining the same work.

In 2006, the APA conducted a survey into likely tasks for extended scope practice, which identified the potentially appropriate roles of:

- Extended Diagnostics
 - The ordering and interpretation of diagnostic tests (such as blood tests, X-rays, imaging scans)
 - Undertake investigative procedures (such as bronchoscopes)

- Extended Therapeutics
 - Utilise invasive techniques (injections or joint aspirations)
 - Other tasks – e.g. wound care, plastering
 - Limited prescribing rights
- Extended Practice Consultation
 - Determine the non-physiotherapeutic onward clinical path for the patient (i.e. direct listing for surgery). Refer to specialist level physicians directly and participate in best practice and knowledge transfer.

(Moore 2007)

Whilst the majority of the identified reviews stated that defining ESP for physiotherapy is not straight forward, there was some agreement that it involves working 'beyond the traditional scope of practice'. McPherson et al. (2006) and Kersten et al. (2007) utilised the additional definitions that ESP should involve tasks that work across professional boundaries, and that innovative ways of working may involve taking on responsibilities previously assigned to members of the medical team. Anaf & Sheppard (2007) further included the role of 'first contact physician' to justify the inclusion of all physiotherapists working within the emergency department being included under the umbrella term 'ESP'. Bethel (2005) largely avoided providing a definition by focusing on the emergency department role and stating that the scope of these roles would be largely determined by local and national service need. Anaf and Sheppard (2007, p.244), in an attempt to define ESP within the emergency department further, stated that the ESP practitioner in this specialty was "a member of the emergency department team to manage patients either autonomously or in conjunction with other medical attending staff". This does not provide detailed enough information of the role for the purposes of this review.

It seems that clinicians themselves are unclear about the boundaries of practice that define ESP. In the survey of extended scope hand practitioners by Ellis and Kersten (2001) there were clinicians identifying themselves as using ESP that the authors then excluded from the survey population, as their roles were deemed to encompass traditional core practice. Conversely, in the latest review, Kersten et al. (2007) felt that some clinicians were performing at this level without formal recognition. This ambiguity may reflect the role creep that led to the development of initial ESP posts in some services.

Whilst accepting the complexity of defining ESP It does not seem appropriate to define ESP by clinical context or setting alone, or by the mode of practice. Clarity of role definition seems best served by identifying specific skill sets, task orientated profiles and competency requirements for the ESP in physiotherapy.

Despite it being apparent that consensus within the literature regarding the definition of ESP physiotherapy has not been reached, certain key elements were

identified that enable a composite definition to be proposed. From our findings, we propose that:

An ESP physiotherapist is a clinical specialist or expert clinician who has the opportunity to develop and demonstrate expertise beyond the currently recognised scope of practice, including some aspect of job enhancement or expansion, involving the areas of extended therapeutics, diagnostics and practice consultation.

The incorporation of 'clinical specialist or expert clinician' in the above definition provides some scope as to the requisite experience or accreditation needed before a clinician can viably commence ESP training; whilst clinical specialisation, as per the APA specialisation pathway, has been recommended, it is acknowledged that 'expert clinicians', or clinicians who have suitable clinical experience and skill yet who have not undergone formal specialisation, have been performing, and may continue to perform, ESP roles in certain circumstances.

Summary

- ESP practitioners working internationally have been identified as utilising some or all of the aspects of extended care identified with our definition - diagnostics, therapeutics and management practices; thereby validating the working definition of this review.
- As the scope of traditional therapy is constantly being redefined, it may be also necessary to continually evolve the definition of extended scope of practice.
- We propose that an ESP physiotherapist is a clinical specialist or expert clinician who has the opportunity to develop and demonstrate expertise beyond the currently recognised scope of practice, including some aspect of job enhancement or expansion, involving the areas of extended therapeutics, diagnostics and practice consultation.

6.2.2

Reported ESP Initiatives

What current ESP initiatives within physiotherapy/physical therapy have been reported?

The majority of the identified literature described ESP initiatives within the context of orthopaedic/musculoskeletal physiotherapy initiatives. In particular, two separate areas – orthopaedic outpatient clinics and emergency department physiotherapy – were considered.

Population characteristics

The majority of the identified literature (90%) documented ESP physiotherapy initiatives with respect to an adult patient population. Only two papers described paediatric physiotherapy patients in isolation (Belthur, Clegg & Strange 2003; Shack & Eastwood 2006). The evaluation of the initiatives within these groups is discussed in further detail in later sections of this review.

Health Care settings

Almost all studies contained within the reviews described initiatives taking place within the secondary healthcare setting (85%). It appears from the literature that the interface between primary and secondary care has been the main area for development of services involving ESP physiotherapy, with such studies focusing on the ESP role providing assessment for specialist resources for musculoskeletal conditions, or providing a suitable alternate management pathway.

6.2.2a

Orthopaedic Initiatives

Orthopaedic initiatives reported within peer reviewed literature

Orthopaedic ESP initiatives were reported in the literature, with ESP physiotherapists present in outpatient clinics within, or concurrent to, an orthopaedic consultant's clinic (Kersten et al 2007; Ellis & Kersten 2001; Oldmeadow et al. 2007; Pearse, Maclean & Ricketts 2006). Referrals from the general practitioner to the orthopaedic surgeon are screened to identify patients who are unlikely to require surgical intervention or to have a serious medical condition, with these triaged referrals comprising the list for the ESP clinic. Knee, back and shoulder conditions were frequently cited as being appropriate for orthopaedic ESP physiotherapy clinic initiatives, however shoulder conditions reportedly required a higher level of orthopaedic consultant input (Oldmeadow et al. 2007; Pearse, Maclean & Ricketts 2006).

Within the described initiatives, the ESP physiotherapist often had input into the patient triage stage, independent of the orthopaedic consultant/surgeon. The ESP practitioner is responsible for providing a high level of diagnostic assessment of the patient at this stage utilising extended diagnostic investigations as appropriate, and establishing and enacting a management plan. In some situations the ESP physiotherapist was reported to provide treatment, however in others the general physiotherapy service received the downstream referrals. The outcomes of such initiatives will be explored in greater detail in later sections, however McPherson et al. (2006, p.245) raises numerous concerns with the conclusions that were drawn from such trials of orthopaedic outpatient ESP roles; notably "...a limited number of clinicians involved, inadequate power, different inclusion criteria for participating centres...".

Further initiatives were also identified within general orthopaedics, spinal screening units, specific major joint services (i.e. knee or shoulder) and

specialist hand services (Oldmeadow et al. 2007; Belthur, Clegg & Strange 2003; Pearse, Maclean & Ricketts 2006; Moore et al. 2005; Hattam 2004; Dawson & Ghazi 2004; Kersten et al. 2007; McPherson et al. 2006). ESP physiotherapists have also been identified working in condition-specific clinics, such as for carpal tunnel syndrome (Warwick and Belward 2004) and congenital talipes equinovarus deformity (Shack & Eastwood 2006). In addition, there are example of ESP initiatives being utilised in hand therapy both pre- and post-operatively to review patients and provide a continuity of care (Peck, Kennedy & McKirdy 2001). Further ESP roles may yet be realised, with Ellis and Kersten (2002) reporting a majority (58%) of consultant medical staff, who had worked with ESP physiotherapists in hand therapy, envisaging opportunities for further extension of the ESP role. In the orthopaedic context, the provision and application of certain orthotics (Shack & Eastwood 2006), and the use of medications (Moore et al. 2005; McClellan, Greenwood & Bengner 2006) was infrequently reported within the literature. The medications used by ESP physiotherapists were relatively limited; comprising only analgesic and anti-inflammatory agents (Moore et al. 2005; McClellan, Greenwood & Bengner 2006). However, the use of major joint injection techniques, such as steroidal injections for subacromial impingement and inflammation, were frequently described (Hogg & Holmes 2000; Atkins 2003; Ellis & Kersten 2001; Ellis & Kersten 2002; Roberts et al. 2003; Gardiner & Turner 2002).

Orthopaedic initiatives reported within grey literature

Four hospitals are currently involved in Queensland Health's 'Fit for Surgery' program to reduce waiting lists, which had previously been in excess of 12 months, for consultation with an orthopaedic surgeon. Similar to initiatives described in the peer-reviewed literature, the orthopaedic outpatient clinics now include an ESP physiotherapy screening service for assessment, diagnosis and early management plans. The success of this initiative has prompted recommendations supporting similar mainstreaming of complementary models of care within other Queensland specialist outpatient services (Queensland Health n.d.).

Similar initiatives were introduced as part of the Victorian 'Better Skills, Best Care' initiative, in which physiotherapy orthopaedic screening services were implemented to classify patients as either requiring a surgical consultation or warranting conservative management by ESP physiotherapists (Victorian Government Department of Human Services 2007). Such an initiative is proposed to better utilise the advanced skills of the orthopaedic surgeons, with flow-on effects in patient waiting times (Victorian Government Department of Human Services 2007). Whilst these orthopaedic clinics had the potential to assess patients with a variety of conditions, there was a focus on knee, back and shoulder conditions (Victorian Government Department of Human Services 2007). Also within Victoria was the description of a physiotherapy triage clinic for non-urgent low back pain patients, who were previously referred to an orthopaedic outpatient clinic, which resulted in subsequent benefits in patient waiting time (Victorian Government Department of Human Services 2007). In addition, the ESP physiotherapists within this service were successfully able to identify patients who required upgrading to a more urgent category status (Victorian Government Department of Human Services 2007).

However, whether many of these orthopaedic initiatives truly represent extended roles, or rather novel modes of service delivery, is somewhat debatable. Whilst this will be discussed further in the section on training and accreditation, in many instances no further practitioner training was required

before commencing the orthopaedic initiative (Victorian Government Department of Human Services 2007). As such, it can be inferred that the roles that they were performing were consistent with their existing ones and that only their work setting (in conjunction with an orthopaedic consultant/surgical clinic) was novel.

Summary

- ESP physiotherapy in orthopaedics is well described within the literature.
- ESP roles are being predominately utilised in outpatient orthopaedic clinics to triage and conservatively manage patients; particularly those with knee, back and shoulder conditions.
- Local initiatives are in progress across Australia, following similar models of service delivery.

6.2.2b

Emergency department initiatives reported within peer reviewed literature

Emergency Department Initiatives

Physiotherapists have reportedly been working within the emergency department for some time undertaking the care of soft tissue injuries; however they have not always been clearly identified as extended scope practitioners. There also remains doubt over the ability of such a narrowly defined clinical service to provide efficient resource utilisation, especially outside of large regional acute hospital environments (Bethel 2005).

The literature has identified that ESP physiotherapists in the emergency setting are primarily involved with the assessment and management of adult patients with acute musculoskeletal injuries (Bethel, 2005; Anaf & Sheppard 2007). Within the emergency department environment, ESP physiotherapists were involved in the management of comparatively more lower limb soft tissue injuries than upper limb injuries (Anaf & Sheppard 2007). As an example, a British study described an initiative in which an acute knee injury service, designed to save medical time and reduce orthopaedic waiting lists, run by an ESP physiotherapist was implemented within the emergency department (Jibuikie et al. 2003). Other areas in which the ESP physiotherapists were able to deliver patient interventions were in acute fracture management (including chest/rib fractures), whiplash, torticollis, haematoma and burns; however these areas of care were infrequently described (Anaf & Sheppard 2007; McClellan, Greenwood & Bengner 2006). ESP physiotherapy task within the emergency department environment commonly included radiographic image ordering and interpretation, plaster application, minor wound and fracture management, and suture removal (McClellan, Greenwood & Bengner 2006; Ellis & Kersten 2001, 2002). It has also been suggested that simple paediatric trauma would be a suitable area for physiotherapist involvement within the emergency department by Anaf and Sheppard (2007), however other authors remain firmly against the role of ESP physiotherapy in any acute specialist care role for the paediatric population (Weatherley & Hourigan 1998).

Whether the ESP practitioner was responsible for the triage of patients into their care remained dependant on the method of service management and clinical specialty; for example, in the emergency department the triage nurse continued to perform this role exclusively (McClellan, Greenwood & Bengner 2006; Richardson et al 2005; Smith & Buckley 2004; Jibuikie et al 2003).

Emergency department initiatives reported within grey literature

In 2003, there were 129 public sector emergency departments located in major referral centres, urban district or major regional / rural base facilities (AHWAC 2006). Demand for emergency care is increasing and core business of emergency departments also appears to be changing, therefore necessitating an evaluation of skill sets and skill mix in provision of care (AHWAC 2006).

The National Institute of Clinical Studies [NICS] released an evaluation report of the emergency department initiatives conducted in Australia in 2002 (NICS 2004). Whilst a variety of new models of care, including those involving ESP physiotherapy, are being implemented in Australian emergency departments, there is no clear evidence that any particular model is superior to another (NICS 2004).

Established initiatives reported typically utilised two different approaches:

1. Physiotherapists within, or leading, care coordination teams; which is primarily an extension of management practices in this area.

The use of care coordination staff in the emergency department, as a means to prevent inappropriate or unnecessary hospital admissions, has been evaluated as a promising initiative that can enhance patient care and reduce pressure for hospital beds (NICS 2004). Incorporated within this is the use of ESP physiotherapists as secondary contact practitioners, with patients referred by other emergency department medical staff, to assess the suitability of patients, particularly the elderly, for discharge with respect to mobility status and falls risk (Victorian Government Department of Human Services 2007). With the high prevalence of emergency department presentations within the elderly attributable to falls and their associated injuries, the ESP initiative described within the Ballarat Health Service aimed to identify 'at-risk' patients, and direct services accordingly so as to prevent re-injury on discharge (Victorian Government Department of Human Services 2007).

2. Physiotherapists within the emergency department as specialists managing acute musculoskeletal soft tissue injury.

Physiotherapists in this context required a broader range of clinical knowledge and skills than in traditional roles due to the nature of their extended scope of practice. Tasks reported as being performed by physiotherapists over several sites included the ordering and interpretation of radiographic imaging, plaster application, management of fractures and minor wounds, assessment of the need for analgesia, and referral to other medical disciplines as appropriate (Victorian Government Department of Human Services 2007). In these situations, following initial triage on presentation, the physiotherapists acted as the primary contact health professional for patients with acute musculoskeletal soft tissue injury (Victorian Government Department of Human Services 2007). Whilst generally favourable outcomes were reported for these initiatives, which were largely implemented to reduce patient waiting time, relieve medical burden and improve the quality of care for patients presenting to the emergency department with acute musculoskeletal injury, notable limitations were identified. These limitations are discussed in subsequent sections.

Overall, the scope of areas within which ESP physiotherapy has potential applicability within emergency department setting is vast, including geriatric, musculoskeletal and cardiorespiratory conditions (AHWAC 2006). Geriatric applicability has also been somewhat realised with the reports of physiotherapy initiatives for assessment of falls risk and discharge suitability, as described above

Summary

- ESP physiotherapy in the emergency department is well described in the literature.
- Reported ESP roles have typically focused around musculoskeletal/acute soft tissue injury management, with ESP physiotherapists serving as primary contact health professionals.

6.2.2c

Other reported initiatives within the peer reviewed literature

Other reported initiatives

Despite the membership of special interest groups devoted to the development of ESP containing clinicians in other clinical areas such as neurological and cardiopulmonary physiotherapy, it appears that no description of extended practice within these clinical areas has been published to date. The existence of ESP roles in these, and other specialties (including gerontology, burns care, women's health), cannot be verified from the peer reviewed literature identified within this review. Therefore, the majority of physiotherapy clinical specialties appear to remain an unsourced potential with respect to the applicability of ESP roles. Incidences of ESP physiotherapists performing blood tests, nerve conduction studies, MRI and bone scans were also identified, albeit infrequently (Moore et al. 2005; Ellis & Kersten 2001).

Other reported initiatives within the grey literature

Rheumatology

Potential ESP physiotherapy roles exist in the area of rheumatological care. Investigation of workforce planning within the Western Australian health system identified that for many patients surgery is not the appropriate line of management, and an effective multi-disciplinary rheumatology service can reduce surgical demand (Department of Health WA n.d. b). As not all patients need to see a rheumatologist, this has been identified as an area with high potential to introduce a triage and screening service run by ESP physiotherapist, similar to those previously described within the orthopaedic context. In addition to the triage and assessment of rheumatoid conditions, specific services such as splinting and the provision of orthoses and rehabilitation devices were also considered appropriate (Department of Health WA n.d. b).

Neurological

There have not been any realised opportunities for extensions of practice within neurological care identified as yet within the literature.

However, workforce planning in Western Australia has identified a need for neurological services that address the following issues:

- Initiatives to keep people out of hospital through improved health promotion, prevention and community based care
- Shifting the balance from high cost tertiary care to either secondary based care or more significantly to primary / community care, utilising a shared care approach
- Improving clinical practices in hospitals by focusing on reducing length of stay, and achieving greater efficiencies in support services.

(Department of Health WA 2006b).

Cardiopulmonary

There have not been any realised opportunities for extensions of practice within cardiopulmonary physiotherapy identified as yet within the literature.

Workforce planning in Western Australia has identified potential ESP roles from the UK in the area of respiratory care and cardiothoracic care. Suggested ESP roles potentially may involve:

- Limited prescribing rights, including adjustment of specific medication dosages
- Taking arterial blood gases
- Bronchoscopy
- Provision of non-invasive ventilation [NIV] for acutely unwell patients, and adjusting NIV/oxygen settings
- ESP physiotherapists, along with doctors and nursing staff, leading Critical Care outreach teams
- Physiotherapy-led cardiac rehabilitation
- Tracheostomy tube change/decannulation
- Requesting radiographic imaging

(Department of Health WA 2006a; Department of Health WA n.d. a).

The ESP physiotherapists could potentially work within primary or secondary health care settings, or across interfaces in the manner of community care teams that would manage chronic conditions such as COPD, thereby aiming to prevent acute hospital admissions.

Women's Health

There have not been any realised opportunities for extensions of practice within women's health care identified as yet within the literature.

However, an APA report discussing future directions in maternity care did identify that "Consultant and research posts should be created for clinicians other than doctors to provide career paths and promote retention of professionals with specialist expertise" (APA [WA Branch] 2006, p.6).

Summary

- ESP role development in other specialty areas is not currently described in the literature. Discussion of suitable extended roles, whilst ongoing, remains largely theoretical.

6.2.3

Other reported initiatives

What is the rationale behind the development of ESP physiotherapy initiatives reported within the literature?

Linked somewhat with the evaluation of ESP physiotherapy initiatives are the various rationales for those initiatives described within the literature. The rationales described within the literature can generally be grouped according to three categories:

- Organisational
 - eg waiting time, cost, working hours, reduction of inappropriate referrals
- Stakeholder
 - eg satisfaction, patient experience
- Clinical
 - eg diagnostic accuracy, patient outcomes, patient safety/reduction of adverse events

From the secondary evidence within the identified peer-reviewed literature, the most common factors driving the development of ESP physiotherapy were organisationally-focused and politically motivated; notably the desire to reduce waiting times for patients. Within the literature, the UK National Health Service [NHS] recommendations for waiting times were set in 2000 at 3 months for an initial consultation and 6 months for treatment (NHS 2000), with many of the ESP initiatives being driven by the need to achieve these service outcomes. This was a frequent finding, due largely to the bulk of the peer-reviewed literature emanating from the UK. Furthermore, the European working time directive had a large impact on the UK by reducing the working hours of junior doctors (Pickersgill 2001); therefore there was a need to establish a flexible allied health workforce to meet service demands at a time when the traditional workforce had been diminished. Reduction of waiting times was proposed to be achieved by several means, including the addition of another clinician in a specific clinical environment, reduction of medical burden and efficient patient triage and assessment through a reduction in inappropriate or unnecessary specialist referral (Kersten et al. 2007; Anaf & Sheppard 2007; Bethel 2005). When all peer reviewed articles were assessed, a more balanced approach to the development of ESP roles was apparent, with both stakeholder and clinical drivers being included (Figure 2).

There has been comparatively less discussion of clinically-oriented drivers of ESP physiotherapy initiatives, with the aim of improving patient outcomes, in the literature. This may be primarily because the evaluation of role extension is at an early stage, or it may be because it is often assumed that there is a direct flow onward of clinical benefits to the patient if organisational outcomes are achieved without detriment to patient quality of care. For example, if waiting times are reduced, patients should receive more timely and appropriate assessment and management, theoretically leading to better clinical outcomes. Whilst this is true for many initiatives (refer section on evaluation), it cannot be assumed to be true for all clinical specialties and conditions.

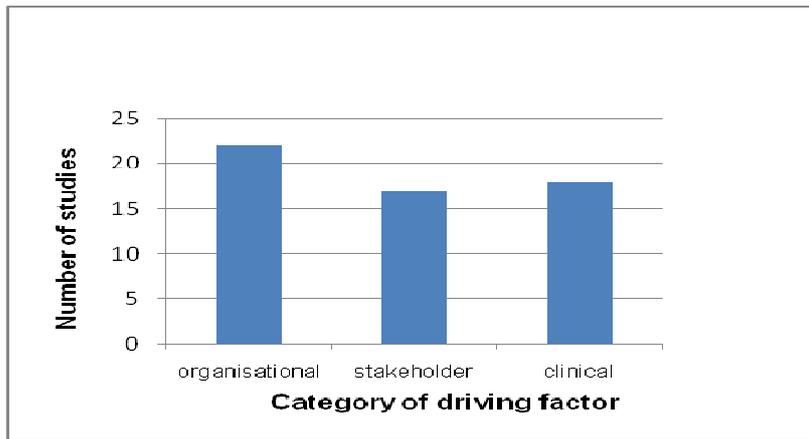


Figure 2. Driving factors for ESP initiatives

The primary studies included within this review often describe a firm commitment to stakeholder and clinical drivers within the process of ESP development. However, when the issues are clarified there remains some debate as to which are truly ‘patient centric’ and which may be identified as ‘profession centric’ (Figure 3).

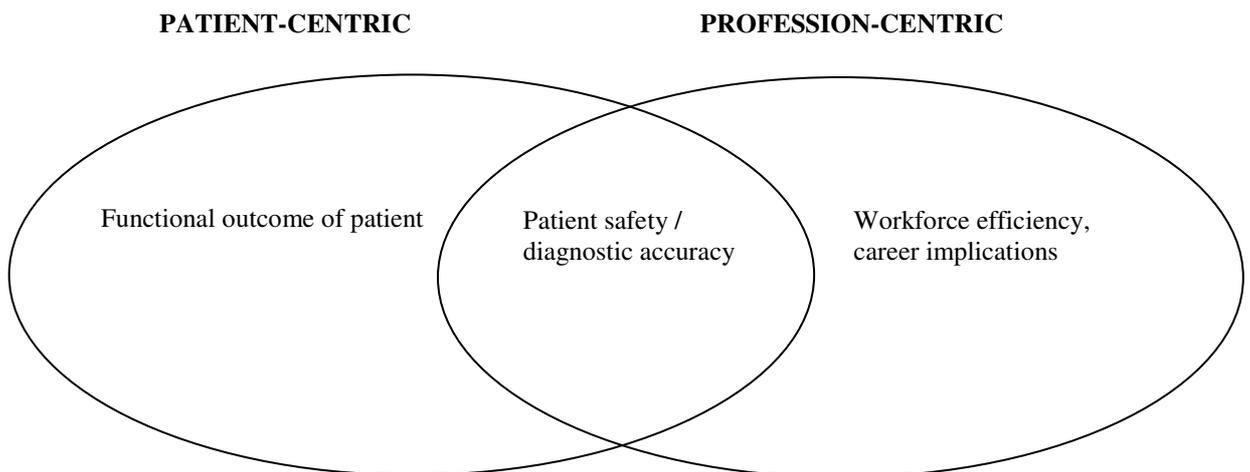


Figure 3. Cross-over of patient-centric and profession-centric drivers

Summary

- International drivers for ESP physiotherapy roles have been varied, but are dominated by organisational and politically-motivated factors.
- Stakeholder and clinical drivers are also stated, with a mix of professional and patient-centric rationales.

6.2.4

What has been the evaluation of these initiatives?

Evaluation of Initiatives

Whilst the literature is largely supportive of ESP, that literature is typically descriptive or opinion-based (Kersten et al. 2007). There is comparatively less evidence demonstrating measurable benefits or evaluation of ESP physiotherapy roles, a feature often attributed to the ad-hoc nature of ESP implementation, with a lack of foresight into evaluation (Kersten et al. 2007). Moreover, many audits comprising the body of literature which does report measurable outcomes, particularly with respect to the UK setting, were reportedly not conducted as proper audit cycles, and thus potentially made premature conclusions (Kersten et al. 2007). Whilst few literature sources are not supportive of ESP physiotherapy, the possibility of a publication bias (eg. a lack of reporting of negative outcomes or experiences) must be considered (Kersten et al. 2007).

In general, the stated drivers for the studies often determined the form of evaluation carried out. Organisational outcome measures, notably waiting time, dominated. Other outcomes included the re-referral rate and the proportion of the workload that the ESP practitioner could manage independently. Evaluated outcomes that have been utilised are detailed below in a hierarchical fashion regarding frequency of use, along with their relevant limitations.

Key Performance Indicators

As evidenced by Table 3, a number of key performance indicators [KPIs] were identified amongst the literature. Due to the varying frequency with which each were reported, there are varying amounts of evidence to suggest whether specific ESP physiotherapy initiatives can achieve those KPIs.

The KPIs reported within the literature can largely be grouped into a classification of either organisational, stakeholder or clinical outcomes. Such outcomes included within the literature included:

Organisational Outcomes

- Patient waiting time and length of stay
- Cubicle occupancy
- Re-referral rate
- Rate of cases able to be conservatively managed by ESP physiotherapy
- Appropriateness of further referral
- Clinician time

Stakeholder Outcomes

- Patient satisfaction
- Practitioner/staff satisfaction
- Practitioner/staff experiences
- Views of other medical staff on ESP physiotherapy initiative

Clinical Outcomes

- Patient safety (eg rate of adverse events/near-misses)
- Key condition-/initiative-specific clinical outcomes
- Patient functional outcomes (eg return to work)

Please note that the aforementioned examples are only those identified from the literature, and are not considered to be a full recommendation of KPIs to be utilised in any ESP physiotherapy trial. Due to the ad-hoc nature of many reported evaluations, KPIs were infrequently planned. Indeed, cost-effectiveness and cost outcomes were infrequently reported, as were condition-specific clinical outcomes; both of which would arguably form integral KPIs within any possible ESP physiotherapy trial.

Table 3. Summary of evidence for evaluation of ESP initiatives

Category of Outcome	Outcome Measure	Frequency Reported Within Literature	Evidence Trend	Limitations/Issues
Organisational	Waiting time	Infrequent	ESP posts reduce waiting times for patients (Mean 76% reduction; range 42-90%) within studies including quantitative data. Other studies stated a trend for physiotherapy to reduce waiting times.	Confounding organisational changes, implemented concurrently with ESP initiatives, and collateral impact on waiting times not always stated.
	Ability to manage caseload conservatively / independently	Rare	ESP physiotherapists reportedly can independently and conservatively manage a large number of referrals received by orthopaedic consultant clinics (Mean 73%, range 40-93% within 11 studies including quantitative data).	Studies where ESP role was more limited in scope (i.e. unable to inject) showed lower rates of independent management and longer clinical journeys.
	Re-referral rate	Rare	ESP physiotherapy clinics reportedly have a very low rate of re-referral.	Few studies performed evaluations over long enough time frames to capture re-referrals.
Stakeholder	Patient satisfaction	Common	Patients express high rates of satisfaction with ESP roles (Mean 81% satisfaction reported within 10 studies including quantitative data). Other studies stated anecdotal satisfaction improvement after introduction of ESP services.	'Satisfaction' is a complex outcome issue, being influenced by many factors.
	ESP practitioner experiences	Rare	Therapists express a range of positive and negative views on their roles	Limited numbers of clinicians sought.
	Views of medical staff	Rare	Medical staff reportedly state broad support, but have voiced specific concerns	Exposure to working with ESP physiotherapists alters viewpoints; variance between opinions of staff exposed & not exposed to ESP physiotherapy.

Clinical	Accuracy of diagnosis	Frequent	ESP physiotherapists reportedly have a high rate of diagnostic accuracy and ability to predict onward patient path (i.e. surgery).	Limitations of comparison outcomes.
	Safety	Infrequent	No adverse events reported.	
	Patient clinical outcome	Infrequent	Studies in hand therapy and paediatrics have shown comparatively better functional outcomes for patients. Studies in the emergency role report some drawbacks.	Long-term outcomes not evaluated, which limits conclusions that can be drawn in some orthopaedic studies.
Majority	in 80-100% of papers			
Common	in 60-80% of papers			
Frequent	in 40-60% of papers			
Infrequent	in 20-40% of papers			
Rare	in 0-20% of papers			

6.2.4a

Peer Reviewed Literature

Discussion of evaluation and potential benefits identified from peer-reviewed literature

Reducing burden on medical practitioners

There is evidence to support that ESP physiotherapists can reduce the burden on medical staff by taking referrals more appropriate for conservative care. A high proportion of referrals received at secondary specialist clinics do not require surgical intervention, and thus a high percentage reportedly can be successfully managed conservatively by ESP physiotherapists (Pearse, Maclean & Ricketts 2006; Shack & Eastwood 2006; Belthur, Clegg & Strange 2003).

ESP physiotherapy within the emergency department has been suggested to release medical staff for more time-consuming critical acute interventions (Anaf & Sheppard 2007; Bethel 2005), thereby impacting upon the clinical outcome of a wider base of patients than has been assessed in the literature base to date. Indeed, the work of Anaf & Sheppard (2007) identified significant reductions in workload for the emergency orthopaedic team, thus freeing up these practitioners to attend more urgent cases, when an ESP physiotherapy service was implemented to deal with orthopaedic and musculoskeletal trauma within the emergency department.

Whilst this is a reasonable argument, there is insufficient evidence to date to confirm this to be consistent for all settings. Indeed, Anaf & Sheppard (2007) do not provide a detailed quantitative analysis of these reported benefits. However, emergency department waiting times and cubicle occupancy times were reported to be reduced after the introduction of ESP physiotherapy practitioners (Smith & Buckley 2004 as cited in Bethel 2005; Hughes et al. 2003 as cited in Bethel 2005), with this being proposed as a proxy measure in the literature for reduced medical burden and thus greater clinical efficiency. Whether ESP physiotherapy can contribute to other key indicators in emergency care (for example bed block or ambulance bypass) has also yet to be demonstrated.

ESP physiotherapy in orthopaedic settings can release staff time, thereby freeing up and saving consultant sessions. Belthur, Clegg & Strange (2003) calculated that the introduction of physiotherapy led screening clinics in a general paediatric orthopaedic clinic had saved 82 consultant sessions over three years. This saved time was concluded to be put to greater and more effective use in the management of urgent and more complex cases, whilst the release of staff time was also identified as enabling them to participate in further education and training of junior medical staff (Peck, Kennedy & McKirdy 2001; Belthur, Clegg & Strange 2003).

Similar to reports from the emergency setting, the extent of the reduced burden on orthopaedic medical staff is infrequently quantified (Peck, Kennedy & McKirdy 2001; Warwick & Belward 2004). However, the ability of ESP physiotherapists to independently manage patients conservatively, without the need for consultant referral, can be used as a measure of reduced medical burden. The evidence base also supports the ability of ESP physiotherapists to independently manage most orthopaedic referrals triaged to them from the consultant's list, with a study by Ellis & Kersten (2001) identifying that approximately 80% of the clinic workload was able to be managed by the ESP physiotherapists. This figure is higher than that reported in other peer-reviewed literature [range 40-60%] (Oldmeadow et al. 2007; Byles & Ling as cited in Pearse, Maclean & Ricketts 2006); however the literature is still supportive of ESP physiotherapists' ability to independently manage such patients. Of all 11 studies identified within this review that reported this specific

evaluation of the orthopaedic initiative, the mean number of patients able to be managed independently by the physiotherapists was 73%. Thus, the extended scope practitioners have considerable potential to reduce the workload of medical staff by removing referrals more appropriate for conservative care.

Reduced patient waiting time

With respect to emergency department musculoskeletal and orthopaedic ESP initiatives, there is evidence suggest that patient waiting time is reduced. Indeed, it has been suggested that physiotherapists' training may enable to assess and manage these conditions more efficiently than other practitioners (Bethel 2005).

Whilst patients seeing ESP physiotherapists may have their waiting times reduced (Smith & Buckley 2004 as cited in Bethel 2005; Hughes et al. 2003 as cited in Bethel 2005), benefits to other patients may be apparent. Average waiting times for all emergency department patients, irrespective of presenting complaint, reduced by approx 14-60 minutes in several studies in which ESP physiotherapy initiatives were involved (McClellan et al. 2004 as cited in Bethel 2005; Stainforth et al. 2003 as cited in Bethel 2005; Hughes et al. 2003 as cited in Bethel 2005). Somewhat surprisingly, however, patient consultation time was highest for the ESP physiotherapists. As such, it was suggested that the time benefits reported were the result not of the introduction of physiotherapists, but the introduction of another employee into the emergency department environment (Bethel 2005).

Similar reasoning is suggested for the reduction in patient waiting time reported in the orthopaedic context. However, these reductions were typically far more dramatic, conceivably due to the public health sector settings of the majority of ESP physiotherapy trials. The mean reduction in patient waiting time, where reported in percentage terms, across reviewed orthopaedic initiatives was 76% [range 42-90%] (Hattam & Smeatham 1999; Belthur, Clegg & Strange 2003; Maddison et al. 2004; Smith & Buckley 2004).

In a general orthopaedic screening initiative described by Maddison et al. (2004), patient waiting times reduced by up to 30 weeks, whilst an associated specialist back pain service reduced patient waiting times by up to 50 weeks to an average waiting time of 5 weeks by the end of the trial. Similarly, in a general paediatric orthopaedic clinic described by Belthur, Clegg & Strange (2003), patient waiting time decreased by an average of 44 weeks over a 12-month period for non-urgent cases, with waiting times continuing to fall by an average of 20 weeks over a subsequent 2 year period. Waiting times for urgent or complex cases decreased by approximately 10 weeks over a 12-month period, with this decrease maintained throughout the remainder of the pilot initiative (Belthur, Clegg & Strange 2003). Whilst these initial waiting times seem particularly large in some cases, they continue to demonstrate the potential ability of ESP physiotherapy initiatives to reduce patient waiting time.

Improved clinical management

ESP physiotherapists can utilise high level musculoskeletal diagnostic skills to ensure soft tissue injuries are accurately identified and managed. Reviews have identified that physiotherapists are less likely to miss significant injury and make inappropriate referrals to trauma clinics than senior house officers (Bethel 2005), and that they can be as effective as junior orthopaedic surgeons in assessment and management of new orthopaedic referrals (Kersten et al. 2007). Gardiner and Turner (2002) provided evidence that 100% of patients listed for arthroscopy by ESP physiotherapists had operable lesions at arthroscopy compared to 79% listed by doctors; however the rate of false negatives (missed cases) is unclear. Such a rise in diagnostic accuracy may also provide benefits to all stakeholders in ensuring that invasive and costly

interventions (eg. arthroscopy) are reserved for those who really need them.

Similarly, in the orthopaedic context a high level of diagnostic accuracy, along with agreement with the orthopaedic consultants with respect to management plans, is reported (Oldmeadow et al. 2007; Dickens et al. 2003; Hattam 2004; Moore et al. 2005; Gardiner & Turner 2002; Jette et al. 2006; Harrison et al. 2001). In comparison to MRI findings in the orthopaedic setting, ESP physiotherapists displayed appropriate levels of clinical diagnostic accuracy (74.5%); a level which was not significantly different from the clinical diagnoses of orthopaedic surgeons ($p>0.05$) (Moore et al. 2005). The management plans devised by ESP physiotherapists, working as part of triage/conservative management initiatives in conjunction with orthopaedic consultants' clinics, were identical to those of the orthopaedic consultants in approximately 75% of cases (Range 74 – 76%), whilst good levels of appropriate further surgical referral, when warranted, were reported (Oldmeadow et al. 2007; Dickens et al. 2003; Hattam 2004). Relatively high levels of clinical decision making (Range 79 – 88% across different clinical areas) were identified via hypothetical case studies administered to a group of American physical therapists, although the accuracy of higher in specific clinical areas in which the clinicians had undertaken specialisation training (Jette et al. 2006).

However, whether this translates into improved patient clinical outcomes is less certain due to the relative infrequency with which these outcomes are reported. Such outcomes were more notable in the literature pertaining to emergency department initiatives; however they were still uncommon. Most clinical outcomes pertained to the decision-making of physiotherapists, which typically identified appropriate investigation (eg X-ray, MRI) ordering and fracture identification rate in cases of acute musculoskeletal trauma (Ball, Walton & Hawes 2007; Jibuike et al. 2003). Indeed, the appropriateness of clinical management was not considered inferior to that of medical staff (Ball, Walton & Hawes 2007; Jibuike et al. 2003). Of the few studies identifying patient-specific outcomes, McClellan, Greenwood & Bengner (2006) attempted to identify long-term effects of the ESP initiative on acute musculoskeletal trauma via patient follow-up; however this was substantially limited by poor subject response at follow-up. Nonetheless, there was a trend (albeit non-significant) for better pain and functional outcomes 4 weeks post-injury, as measured by the SF-36 and Visual Analog Scale, in patients managed by ESP physiotherapists compared to traditional medical staff (McClellan, Greenwood & Bengner 2006).

However, the impact of ESP physiotherapy initiatives on functional outcome for patients in the emergency department has been queried, with Richardson et al. (2005) describing a trend for patients seen by the ESP physiotherapist to take longer to return to usual function following musculoskeletal trauma. On average, patients seen in the emergency department by ESP physiotherapists took 12.5 days longer to return to normal activities compared to patients managed by medical staff, although this difference was non-significant ($p=0.07$) (Richardson et al. 2005). However, this may also be dependent on the extent of injury, which was not reported. Further high quality studies are required to establish the benefit of ESP physiotherapy services for patient related clinical outcomes, both in terms of short-term and long-term outcome.

There have been no adverse incidents reported from ESP roles, however the long term safety and effectiveness of these roles is less clear (McPherson et al. 2006).

Of the few paediatric initiatives reported within the identified literature, detailed consideration of clinical outcomes is lacking. Indeed, a general paediatric orthopaedic initiative reported by Belthur, Clegg & Strange (2003) have no

consideration to specific clinical outcomes, other than reporting the occurrence of necessary referral to orthopaedic consultants. For ESP physiotherapists leading a paediatric congenital talipes equinovarus deformity service, 97.5% of patients managed via this initiative achieved a reduction of deformity, which was felt to be the result of the expertise and continuity of care from the ESP physiotherapists (Shack & Eastwood 2006). Again, however, whether these truly represent extended roles or novel modes of service delivery is somewhat debatable. Moreover, the available evidence remains too limited to provide clear recommendations regarding the effect of such initiatives within the paediatric patient population as a whole.

Patient satisfaction

Patients consulting ESP physiotherapists seem to be accepting of them in place of seeing traditional medical professional, particularly with reference to the emergency department setting (Bethel 2005). Indeed, patient satisfaction with the ESP physiotherapists was often greater in comparison to other medical professionals. Both McClellan, Greenwood & Bengler (2006) and Richardson et al. (2005) report significantly increased patient satisfaction in patients that were seen by emergency department physiotherapists in comparison to nurse practitioners and doctors ($p=0.048$ & $p<0.001$, respectively). However, to some extent this may be influenced by the decreased waiting times associated with such initiatives.

Similarly, in a variety of orthopaedic initiatives targeting both adult and paediatric patient populations, the level of patient satisfaction was high, reportedly ranging from 77 – 90% (Oldmeadow et al. 2007; Belthur, Clegg & Strange 2003; Shack & Eastwood 2006; Pearse, Maclean & Ricketts 2006; Maddison et al. 2004). Further anecdotal reports also support conclusions of patient satisfaction with such initiatives and the care they receive within them (Peck, Kennedy & McKirdy 2001; Peck et al. 2004; Smith & Buckley 2004).

Cost-effectiveness

Consideration of the cost-effectiveness and cost outcomes of ESP physiotherapy initiatives is infrequently presented in the literature.

In an orthopaedic setting, 2 studies identified significant cost benefits associated with the ESP physiotherapy initiative. Daker-White et al. (1999), who described a physiotherapist-led triage and assessment service in an outpatient orthopaedic clinic, identified significantly less cost per patient in comparison to patients consulted by junior orthopaedic surgeons ($p<0.0001$); due largely to a decreased rate of investigation ordering and further orthopaedic consultant referral in the ESP physiotherapy group. On average, the mean saving was £242 per patient seen by the ESP physiotherapist (Daker-White et al. 1999). Similarly, cost per patient was reduced in a paediatric orthopaedic clinic, with the average cost per patient being £9.67 in the physiotherapy group compared to £16.26 in the orthopaedic consultant group (Belthur, Clegg & Strange 2003).

However, in a study of emergency department ESP initiatives, no significant cost differences existed between the management of patients via either a doctor or ESP physiotherapist; however there was a trend for increased costs within the physiotherapy group (Richardson et al. 2001). Costs directly attributable to the emergency department management were generally lower in the physiotherapy group, however ongoing hospital and community care costs, which contributed to the total cost, were substantially higher (Richardson et al. 2005). The reasons for this are unclear.

However, even if patient treatment costs are demonstrated to decrease, these would conceivably need to be balanced against the practical costs associated with running such ESP initiatives; for instance staff salaries commensurate with

their 'extended/advanced' role, costs of an additional physiotherapist (if applicable), and any consumables used within the service.

Improved workforce retention and satisfaction

The specialisation required to develop extended scope practitioners has been described as a process that will provide challenges, but also incentives, within the physiotherapy career structure (Bennett & Grant 2004). The Western Australian APA branch identified that "decisive action was needed to stem the flow of qualified practitioners from the profession", and that "lack of recognition, limited career paths and lack of remuneration are major contributors to attrition" (APA [WA Branch] 2005, p. 3). Such extended scope roles may provide a tangible incentive to improve workforce retention and satisfaction, particularly of experienced practitioners.

Job satisfaction of ESP physiotherapists was acknowledged in several studies, however notable stress and dissatisfaction was also noted. In particular, Dawson & Ghazi (2004), in a qualitative study of an orthopaedic outpatient initiative, identified considerable dissatisfaction; particularly when clinicians did not feel that their skills were being fully utilised (ie performing in a 'technician' role), or that support from other health professionals aligned with the service was lacking. Heavy clinical workloads also were identified as overly burdening ESP physiotherapists, as was a lack of defined career progression (Collins et al. 2000). Comments regarding inadequate remuneration, commensurate with the 'extended' role, were also identified (Collins et al. 2000).

Summary

- The literature is generally supportive of the development and implementation of ESP roles in physiotherapy; however much of this support is anecdotal and lacks quantification.
- Substantial organisational benefits, notably reduced medical burden and patient waiting time, following implementation of ESP initiatives have been demonstrated in the literature.
- Physiotherapists reportedly have demonstrated accuracy in their diagnostic skills in extended roles, which is an important component of patient safety.
- There is limited evidence to support the improvement of clinical outcomes due to the use of ESP initiatives.

6.2.4b

Discussion of evaluation and potential benefits identified from grey literature

Grey literature

Cost-effectiveness and cost outcomes

Despite their importance to the development and ongoing sustainability of any extended scope role, cost outcomes are infrequently considered in the grey literature. Moreover, if cost outcomes and information on cost-efficiency was reported to a greater extent, it is unclear whether this would represent the true costs associated with the implementation and provision of ESP role due to the ad-hoc nature of the reported initiatives. As such, the financial outcomes of ESP physiotherapy roles are largely unknown.

However, considerable workforce savings have the potential to be made. It is proposed that by increasing the effectiveness of the health service, typically by reducing the number of steps involved in patient journeys, will increase the cost-effectiveness of the service (APA 2005b). For instance, the duplication of roles, as occurs with the use of doctors in 'gatekeeper' roles that serve only to further refer patients, is seen to pose a significant cost (APA 2005b).

Impact of ESP roles on service provision to remote and rural communities

Thirty-four per cent of Australians reside outside major metropolitan centres, with this figure being as high as 70% in the Aboriginal and Torres Strait Islander population (Murray & Wronski 2006). However, the distribution of the total health workforce outside urban areas is considerably less; only 23% of medical specialists, 27% of general practitioners, 34% of nurses and 25% of physiotherapists are located outside urban areas (Murray & Wronski 2006).

Due to the majority of ESP trials occurring within urban areas, particularly larger hospitals and health services, many proposed benefits of ESP initiatives for rural and remote communities are theoretical. Such potential benefits are hypothesized to include an improved and enhanced access to health services, earlier access to treatment, reduced burden on the limited medical population of rural and remote communities, and being able to provide care within the patient's home setting (Moore 2007).

Flexible approaches to clinical task delegation and a team-oriented approach are already widely accepted in rural and remote areas (Murray & Wronski 2006). Nurses, Aboriginal health workers (AHWs) and therapists routinely exercise an extended scope of clinical practice that reflects community needs, often informally developed while working alongside doctors.

Organisational Outcomes

Similar to reported outcomes within the peer-reviewed literature, reduced patient waiting time was a commonly identified benefit of ESP physiotherapy. In a triage and conservative management initiative within an orthopaedic consultant clinic in western Victoria, patient waiting time reduced from an average of 56 weeks pre-intervention to 30 week post-intervention (Victorian Government Department of Human Services 2007). In addition, fewer unnecessary placements of patients onto the surgical waiting list, in comparison to a group of doctors within the hospital, was identified (Victorian Government Department of Human Services 2007). Reductions in waiting time were also identified in an outpatient orthopaedic clinic at the Austin Hospital [Victoria] and in an orthopaedic triage service within several sites in Queensland, however this was not quantified (Victorian Government Department of Human Services 2007; Queensland Health n.d.).

In the emergency department setting, the average length of stay for patients seen initially by the ESP physiotherapists at the Ballarat Health Service was reduced by 44 minutes in comparison to those patients seen initially by emergency department doctors [45 vs. 89 minutes] (Victorian Government

Department of Human Services 2007). Lesser reductions in waiting time were identified for patients with acute musculoskeletal trauma presenting to the Royal Melbourne Hospital, who recorded only 10 minute decreases (Victorian Government Department of Human Services 2007).

Stakeholder outcomes/Satisfaction

Patient and clinician satisfaction was a commonly reported outcome within the 'Better Skills, Best Care' initiatives run within the Victorian public health setting (Victorian Government Department of Human Services 2007). However, much of the evidence was largely anecdotal or qualitative. Nonetheless, in response to an orthopaedic outpatient initiative at The Northern Hospital, all patients felt that the physiotherapy service was appropriate for, and could manage, their condition (Victorian Government Department of Human Services 2007). Furthermore, 98% of the patients were happy with the management plan devised by the ESP physiotherapists, and 95% felt that they received good information about their condition (Victorian Government Department of Human Services 2007).

Clinical outcomes

Improvements in the levels of patient pain and activity limitation were commonly reported across several Victorian orthopaedic outpatient initiatives, however these were not quantified (Victorian Government Department of Human Services 2007).

Summary

- Similar to that for peer-reviewed literature, the grey literature is generally supportive of ESP roles in physiotherapy; however much of this support is anecdotal and lacks quantification.
- ESP initiatives are proposed to be of considerable benefit in rural and regional areas, however benefits are largely theoretical.
- Decreased patient waiting times and increased patient satisfaction were commonly reported in the literature.

6.2.4c

ESP Perspective Code

On the basis of extracted data, an ESP perspective code – a methodological approach adopted by some of the more recent and robust studies in this field (Kersten et al. 2007; McPherson et al. 2004) – was applied to summarise the extent of the evidence for ESP roles. This code describes the level of evidence identified for key issues within ESP physiotherapy, and is outlined in Table 4. The application of this code with specific ESP issues is outlined in Table 5. Whilst this is a somewhat subjective rating, we would also advise that where category 'A' evidence is stated, that this only represents that measurable benefits were recorded. The perspective code does not distinguish which outcome this was for (eg waiting time vs. clinical outcome), and as such a category 'A' classification should not be seen as a definitive statement of the safety and efficacy of ESP initiatives. Moreover, for the same ESP physiotherapy initiative/issue, articles of varying perspectives may have been identified.

Table 4. ESP perspective codes

<i>Level of Evidence</i>	<i>Code</i>
Evidence (with limits) to support ESP	A
Descriptive; authors support ESP	B
Evidence (with methodological limitations) that does not support ESP	C
Descriptive; authors express concerns or are unsupportive of ESP	D
Descriptive; authors express partial support with concerns	E
Descriptive; authors express mainly concerns	F

Table 5. ESP perspective coding of literature

Clinical Domain	Specific Initiative/s	Issue/s	Code/s
Orthopaedic outpatient/consultant clinic	Mixed	General opinion	A/E
		Diagnostic accuracy	A
		ESP PT experience	D
		Medical views	E
	Shoulder-specific	General opinion	C
	Hand-specific	Clinic services	A/B
		Clinical outcome	A
		ESP Role development	B
		Medical views	B
	Knee-specific	Diagnostic accuracy	A
	General paediatric clinic	Independent management	A
	Paediatric talipes clinic	Clinical outcome	A
Emergency department		Knee management	A
		Soft-tissue management	A
		Cost outcomes	C
Other musculoskeletal		Service provision	A/E
Non-specific (across domains)	Various ESP initiatives	Diagnostic accuracy	A
		Career satisfaction	A

6.2.5

Barriers and Enables

What barriers and enablers are evident from the literature surrounding emerging roles?

The barriers and enablers identified from the literature were discussed in broad themes grouped into two categories; those commonly expressed by the majority of papers and a lesser category of themes raised by fewer numbers of papers. The themes are discussed in views of their facilitatory and inhibitory aspects.

Commonly expressed themes

- **Support:** It was clear from descriptive studies of ESP practice (Dawson & Ghazi et al. 2004; Mulligan 2003) that the support of the medical team, in particular the consultant specialist, is an essential ingredient to the success of an ESP physiotherapy post. It is recommended that for maximum support, the medical team should be instrumental in the planning and development of ESP services, which breeds greater facilitation across disciplines (Dawson & Ghazi et al. 2004; Mulligan 2003). From the UK experience, it can be seen that initial ESP roles were created with staff in situ that had a good working relationship with the consultant in their area, who provided respect and confidence in the physiotherapists' clinical abilities; thereby enabling the success of the initiative.

Indeed, one of the major barriers to the implementation of any ESP physiotherapy role is that of resistance from other health disciplines, and the blurring of professional demarcation. The APA has refuted comments made from medical groups suggesting that the main focus of such initiatives is task substitution, and that development of ESP roles in many instances encourages treatment by lesser-qualified staff, contending that there is no downgrading of care (APA 2005b). Rather, that extension of roles into appropriate tasks optimises the capability of the available workforce; ensuring patients thereby have better, more timely access to health care professionals to meet their healthcare needs (APA 2005b; APA 2005c; APA 2007).

The Australian Medical Association, Royal Australasian College of Physicians and Royal Australasian College of Surgeons have all stated broad support for task substitution, provided that certain principles were adhered to (Yong 2006; Sewell 2006; Collins, Hillis & Stitz 2006). These principles included task transfer, the use of evidence-based practice, patient safety, cost efficiency and facilitation of best patient care involving explicit curricula and competency based assessments. The Royal Australasian College of Surgeons (Collins, Hillis & Stitz, p. 26) was most explicit in desiring the maintenance of medical control in workforce redesign, stating that their support was limited to situations where "health professionals work under supervision as part of a surgical team and in situations where clinical outcomes are monitored continuously".

- **Role definition:** Clear role definition has been described as beneficial to all members of the health care team when professional extension is developed (Dawson & Ghazi 2004; Collins et al. 2000). Role creep without clarity may lead to misunderstandings, professional tension confusion and limited protection regarding legal indemnity (Bethel 2005; Kersten et al. 2007). Indeed, some authors note that role creep existed in many instances as a means by which extended scope practitioners

attempted to justify their worth and role within the wider service, particularly in the emergency department context (Bethel 2005).

Whilst clearly defining roles is viewed as beneficial, the method of doing so is worth consideration. Clear role definition via the provision of clinical pathways and protocols has been linked both positively and negatively to professional autonomy, which in turn is one of many determinants of job satisfaction (Dawson & Ghazi 2004; Atkins 2003; Collins et al. 2000). It appears that there is a fine line to be drawn in ensuring roles are well delineated, but that ESP practitioners feel that are still able to use their professional judgment skills in an autonomous fashion.

- Risk management: The potential vulnerability of ESP physiotherapists to litigation, as a drawback of and barrier to emerging roles, was commonly expressed by the ESP practitioners themselves, their supervising consultants and medical colleagues (Dawson & Ghazi et al 2004; Atkins 2003; Ellis & Kersten 2002; Mulligan 2003). The need for proactive risk management and suitable planning to ensure legal coverage, including relevant legislation and policies to acknowledge any novel extended roles for which there were previously no provisions for physiotherapists to perform, is emphasised (Kersten et al. 2007; Atkins 2003; Mulligan 2003). Legislative change and appropriate regulatory guidelines to encompass the extended roles is emphasised, as some therapists have indicated that such medico-legal issues pose barriers to the uptake of ESP physiotherapy initiatives (Moore 2005). In order to ensure risks are minimized, a systems-based approach is recommended, with good legal coverage, suitable practitioner competencies and training, strategies to ensure patients rights are protected and clinical safety nets employed as appropriate (Kersten et al. 2007; Atkins 2003; Mulligan 2003).
- Competency and training: Adequate practitioner training is an essential component of enabling ESP roles, along with ensuring sufficient competency of those practitioners in the extended roles that are to be performed. Furthermore, surveys have revealed very little consideration of training needs were encompassed when the first ESP posts were established (Dawson & Ghazi 2004) A systems based approach should ensure that clear competencies are set, there are entrenched evaluation methods and that both initial and ongoing training requirements are identified and met. It should be noted that when surveyed health professionals identified a formal in house approach to training would be most beneficial (Ellis, Kersten & Sibley 2005), this may be due to the current lack of courses that engender and encompass competences that meet the clinical demands of delegated medical tasks (Hogg & Holmes 2000). Training and competencies are discussed further under the issue of 'professional requirements'.

Infrequently expressed themes

- **Practical organisational issues:** In common with the development of any given service or role, it was identified that there needs to be consideration of the practicalities involved with running that service; including the necessary physical space required for the service, staffing, administrative support and financial resources available (Collins et al. 2000). Moreover, it should be noted that a general shortage of the allied health workforce currently exists, and that shifting the burden of service provision to a different area may not necessarily represent an increase in overall service efficiency
- **Collateral impact:** Linked somewhat with 'role definition' is the impact of the extension of physiotherapy roles on other health professions. The literature identified that there is the potential for inter and intra professional impact from the establishment of new enhanced professional roles. A proportion of ESP physiotherapists expressed isolation from their profession, with some even describing an element of antagonism from other physiotherapy colleagues (Atkins 2003). Whilst this may not be a barrier to the effectiveness of an ESP initiative in isolation, it does pose barriers to the ongoing sustainability of such initiatives if this influences physiotherapists' participation. It has been recommended that maintaining an identity, within their own profession, such as by continuing to perform some 'core' roles, should go some way towards alleviating these issues and retaining knowledge within the profession (Ellis, Kersten & Sibley 2005).

The impact of task transfer upon all trainee health professionals has been raised, with the fear that non-physiotherapy trainees will lack exposure to basic conditions that they previously were exposed to, and thus will be limited in developing of their own skill base (Peck, Kennedy & McKirdy 2001). Studies have identified different possible ways to overcome this, including using a rotating shift system to allow junior medical staff exposure to soft tissue injury in the emergency department, or utilising the skills of the extended scope physiotherapy practitioners for trans-disciplinary mentoring and training to ensure the training needs of junior medical staff are met (Peck, Kennedy & McKirdy 2001). The issue of stress was raised by some within the medical profession, who felt that task transfer across disciplines had the potential for more rapid burn out on both sides of the professional fence (Collins et al. 2000). However, in other scenarios the ESP initiative was identified to relieve pressure burdens and the need for excessive overtime (Peck, Kennedy & McKirdy 2001).

- **Career related Issues:** It is proposed that establishing advanced roles for allied health professionals will enhance recruitment and retention (Green, Perry & Harrison 2007; Collins et al. 2000). There is limited evidence from the literature that the majority of staff (76-83%) in new, innovative physiotherapy posts would foresee staying in that extended role, or similar clinical role, for at least the next five years (Green, Perry & Harrison 2007; Collins et al. 2000). The majority of ESP physiotherapists expressed satisfaction with their posts, with this being strongly linked to the development of new skills, autonomy and the perception of increased career prospects (Green et al. 2007; Collins et al. 2000).

- Patient related issues: Worryingly, a significant proportion of ESP physiotherapy posts investigated by Weatherley and Hourigan (1998) did not conform to ethical standards and inform patients that they would not be seen by a medically trained doctor. Pearse, Maclean & Ricketts (2006) also identified that failing to meet traditional patient expectations of being consulted by a doctor may impact upon patient outcomes, and act as a barrier to the success of any ESP physiotherapy service. In contrast to these proposed issues, studies evaluating patient satisfaction found a very high level of satisfaction with the care provided by ESP physiotherapists (Oldmeadow et al. 2007; Belthur, Clegg & Strange 2003; Pearse, Maclean & Ricketts 2006; Maddison et al. 2004; Richardson et al. 2005). Accordingly, whilst recognising that patient satisfaction is often very high in response to ESP physiotherapy initiatives, developers of such initiatives should be cognisant of possible negative perceptions by patients who would otherwise expect to be consulted by a doctor. The need to promote new practice designs to the community has been identified as a significant enabler to such initiatives.

Summary

- Elements that are vital to the success of ESP physiotherapy posts include medical support, clear role definition, and strategies to ensure rigorous establishment and evaluation of clinical competencies as part of a wider risk management plan.
- Elements that may facilitate the continuation of a successful ESP physiotherapy post include maintaining professional inclusion, satisfying ongoing training needs and trans-disciplinary models of working
- Further factors that may prove to be barriers, if not accounted for in the service development plan, are practical administrative requirements, career implications, collateral impact and the influence of patients' rights and expectations.

6.2.6 Professional Requirements

What are the professional requirements for uptake of the ESP roles (i.e. education, training, accreditation), and what is the implication of this for future ESP posts in the ACT?

Within the literature, “training and education for the new roles were variable and often not described” (McPherson et al. 2006, p.246). Nonetheless, some recommendations as to professional requirements, most notably with respect to experience and education, were identified.

Experience and Education

The APA has recommended that an extended scope practitioner has the following minimum experience:

- At least five years clinical experience post entry-level physiotherapy qualification
- At least three years experience in the relevant specialist area; and/or
- Completion of APA specialisation training to ‘titled’ member level in the relevant specialist area; and/or
- Completion of a recognised postgraduate qualification and/or advanced training in the relevant specialist area

(APA 2004).

It is also expected that the workplace will provide the necessary onsite additional training, clinical practice supervision, support, and certification where appropriate to ensure that the practitioner can undertake this role competently and safely (APA 2004). Furthermore, in a recent editorial piece within the *Australian Journal of Physiotherapy*, Robertson et al. (2003) recommended that ESP physiotherapists be taken from the pool of specialist physiotherapists, and thus would have undergone training as part of the APA specialisation pathway. A considerable level of clinical experience was also recommended (Robertson et al. 2003). Bennett & Grant (2004) support this; recommending that extended scope practitioners complete and gain “Postgraduate qualifications or equivalent recognised training and experience in a specialised area of practice (Currently identified as APA Titled membership”, plus “Additional certified training in [an] area of practice outside the normal scope of physiotherapy” (p. 4). However, alternate pathways to becoming an extended scope practitioner are acknowledged (Bennett & Grant 2004).

A limited number of further studies identified the perceived necessary characteristics of the ESP physiotherapist; however those that did stated that they had a minimum of 5, and usually more than 10, years of clinical experience. Similar views were reflected in the study of Ellis, Kersten & Sibley (2005), where a consensus opinion was expressed that practitioners in extended scope roles should have three years experience within the clinical specialty and preferably a further three years of broad clinical experience.

It has not been stated that a postgraduate education (eg. Masters degree) is a prerequisite for becoming an extended scope practitioner, although increasingly postgraduate study is preferred (APA 2004). Indeed, the benefits of postgraduate education have been identified as tangible and highly relevant to ESP by facilitating advanced diagnostic skills and a wider medical knowledge base for extended management practices (Jull & O’Sullivan 2006). Furthermore, there is evidence to suggest that the diagnostic skills and knowledge base of therapists with greater qualifications is higher than for those

without (Hart & Dobrzykowski 2003). However, it has been suggested that in-house training, relevant to the specific extended scope role, is appropriate (Ellis, Kersten & Sibley 2005). The benefits of such specific in-house training may be due to the lack of courses that engender and encompass competencies relevant to the clinical demands of delegated medical tasks (Hogg & Holmes 2000).

Of the Australian ESP physiotherapy initiatives identified for this review, a variety of formal and informal training methods were described. ESP physiotherapists working within the emergency department within the Ballarat Health Service undertook a combination of formal and informal training; completing components of either the Graduate Certificate of Sports or Musculoskeletal Physiotherapy at La Trobe University, plus a further 15 hours of university-based lectures and tutorials regarding plastering and fracture management, in addition to informal hospital-based training of wound management and pharmacology (Victorian Government Department of Human Services 2007). ESP physiotherapists performing falls assessments in the emergency department, as part of the discharge planning, typically also completed vestibular rehabilitation courses conducted by the APA (Victorian Government Department of Human Services 2007). Conversely, all training for emergency department physiotherapists at the Royal Melbourne Hospital was internal, incorporating 16 hours of workshops on plastering and fracture management, radiology, pharmacology screening, red flag detection and referral procedures (Victorian Government Department of Human Services 2007). However, the ESP physiotherapists did undergo a 60 minute written exam before being allowed to perform their new role, and initially had 6 hours of supervised practice (Victorian Government Department of Human Services 2007).

With respect to Victorian orthopaedic ESP physiotherapy initiatives, further training was minimal. Internal training, typically involving mentoring by orthopaedic consultants/surgeons and discussion of case studies, was conducted over 2 sites; however at the Austin Hospital, no further training was deemed necessary (Victorian Government Department of Human Services 2007). In this instance, it would appear that the 'extended' nature of the role pertains more to the mode of delivery, rather than the tasks, of the service.

The implication of the evidence with respect to professional requirements for any future ESP initiatives within the ACT is that the specific nature of the ESP role has to be clearly described in order to determine appropriate prerequisite training. Given the lack of consensus in the literature, consultation with relevant stakeholders, most notably physiotherapists and other medical staff, regarding required knowledge and recommended training to fulfill these roles is considered paramount. Clinicians considered for ESP physiotherapy roles should have a minimum of 5 years of clinical experience, however further experience in a similar area of clinical specialty to that of the ESP role (eg orthopaedic physiotherapy) is also recommended. Whilst internal/informal training may be considered appropriate following evaluation of the nature of any proposed ESP role, the reported benefits of formal post-graduate education or clinical specialization accreditation warrant consideration.

Summary

- There is uncertainty in the literature regarding the professional requirements necessary for ESP physiotherapists.
- A combination of formal and informal training methods is described; however it is generally accepted that clinicians should possess a suitable level of experience. A minimum of 5 years post-entry level qualification has been described.
- Appropriate training methods can be planned following consideration of the precise nature of any proposed ESP role. Consultation with all stakeholders to determine whether formal or informal methods, or a combination of the two, are appropriate is considered paramount.

What organisational and legislative change has been required to accommodate the extension of scope?

Legislative change

From the identified literature it is clear that current legislative barriers have the potential to significantly affect extensions of the physiotherapy practice scope. Australian physiotherapists are currently legally unable to perform many of the ESP initiatives described previously within this review (APA 2007a). Indeed, new forms of physiotherapy practice necessitate legislative and regulatory change at both the State and Federal levels (Turnbull 2007). Subtle variations in relevant legislation and regulatory acts between the respective states and territories will influence the need for, and degree of, change, however a single national authority has been recommended (APA 2006). Whilst also providing clear boundaries for the regulation of practice, such legislative and regulatory changes are also believed to provide therapists with a sense of security with respect to their roles and responsibilities, particularly at the commencement of novel extended initiatives (Moore et al. 2005). Such medico-legal issues have been noted as a barrier to practitioner uptake of ESP physiotherapy (Moore et al. 2005).

Whilst the need for legislative change is clear, what would constitute necessary change is less certain. Again, necessary legislative change is largely guided by the specific ESP physiotherapy initiative that is to be implemented, and it is recommended that changes are made with specific ESP roles in mind. Theoretical consideration of requisite changes to relevant legislation is beyond the scope of this report; however presentation of legislative challenges and barriers associated with initiatives identified in earlier sections of this review are presented.

Issues pertaining to public health funding

It is recognised that issues pertaining to public health funding, specifically Medicare and the Medicare Benefits Schedule [MBS] potentially limits patient access to, and utilisation of physiotherapy services (APA 2005a), however these are not believed to pose intrinsic barriers to the development and implementation of ESP physiotherapy roles. However, to fully utilise and accommodate the extended scope of practice, public health funding arrangements would firstly need to be clarified, with subsequent lobbying for more appropriate arrangements if appropriate.

However, as the APA has recently recommended that increased MBS funding be introduced "...where there is evidence of the effectiveness and cost effectiveness of the intervention" (APA 2008, p. 3), achieving greater public health funding of ESP initiatives is likely to be difficult due to the limited quantitative evaluation, particularly with respect to clinical effectiveness and cost-effectiveness, available.

Broad discussion of funding implications is included specific to certain issues within this section.

Issues pertaining to diagnostic imaging/diagnostic tests

Physiotherapists, as part of their current scope of practice, have the ability to order a number of diagnostic tests, however the funding schedule and refundable benefits are notably lower when compared to other health professions (Turnbull 2007; Moore 2007). Indeed, whilst patient referral for ultrasonography, computerised tomography or MRI is legally permissible,

“...referrals are not or only partly covered by the...Medicare Benefits Scheme” (Moore 2007, p.2). Indeed, there is mounting evidence that physiotherapists have the capacity and skills to use such services appropriately for patient benefit (Turnbull 2007). Similarly, there is some evidence that orthopaedic and emergency department musculoskeletal ESP physiotherapy have measurable benefits (refer also previous section on evaluation), which can only be enhanced by facilitating access to, and use of, diagnostic imaging (Turnbull 2007).

With specific reference to the musculoskeletal trauma initiatives described for the emergency department settings, physiotherapists, whether they be recognized as extended scope practitioners or not, are well suited to propose likely diagnoses of serious injuries based on their clinical skills (Moore 2007). In the event of these working diagnoses necessitating consideration of surgical or substantial orthopaedic intervention, confirmation is sought, typically via diagnostic imaging (Moore 2007). However, due to the aforementioned funding limitations, patients are then referred to other practitioners to order these tests. It is proposed that alterations to the funding schedule will facilitate direct physiotherapist use of imaging, which “...would reduce the time taken for accurate diagnosis and cost to the public health system and the individual” (Moore 2007, p.2). This has particularly important implications for rural and regional patients, for whom access to medical staff may be limited. Accordingly, it is recommended that physiotherapists’ access to, and use of, imaging is facilitated by greater funding as part of the Medicare Benefits Schedule. Such recommendations are also supported by the findings national health workforce productivity reports (Productivity Commission 2005).

It can be demonstrated from the literature that in circumstances where extension of diagnostics is unavailable the ESP practitioner manages a smaller proportion of patients, which results in further steps in the patient clinical pathway (Oldmeadow et al. 2007; Harrison et al. 2001). As such, this does not represent an efficient utilisation of services. The consequences of facilitating increased access to radiology and other diagnostic imaging services by ESP physiotherapists has not been found to increase inappropriate use of these resources; indeed, a trial by Daker-White et al. (1999) identified reduced use of imaging by ESP physiotherapists compared to junior medical staff, concluding that this was the greatest cause of the cost reduction apparent in the implementation of the role.

Issues pertaining to prescription and administration of certain medications

Australian physiotherapists, whether they be extended scope practitioners or otherwise, do not have the legal authority to prescribe and administer medications, such as analgesia and anti-inflammatories (Victorian Government Department of Human Services 2007; APA 2005b). As such, within the Victorian ‘Better Skills, Best Care’ initiatives, ESP physiotherapists wishing to incorporate these medications within their management plan needed consultation with, and referral to, doctors and specialist medical staff; thereby increasing the patient journey (Victorian Government Department of Human Services 2007).

Prescribing rights for a limited number of medications (primarily analgesics and anti-inflammatories) has been an option for certain American physiotherapists since the 1970s, with no adverse effects having been recorded (Moore et al. 2005). ESP physiotherapists in the UK have also been granted limited prescribing in some situations (McClellan, Greenwood & Benger, Dawson & Ghazi 2004). This is most relevant when discussing the ability of

physiotherapist to perform major joint injections with anti-inflammatory agents.

If similar prescription and administration of medications were to be a part of ESP roles in physiotherapy in Australia, there will be a requirement for review and changes to several acts in both State and Federal statute areas. Significant legal and political lobbying would be required, culminating in a formal submission to the Minister/s of Health in each jurisdiction (Turnbull 2007). However, it should be noted that the ability to prescribe may not necessarily be seen as a pre-requisite for the administration of medication; with a specific example being injection therapy. The medical practitioner could continue to prescribe the medication, which the physiotherapist would then be responsible for administering. There is also the option of having a pre-authorized list of medication available for practitioners when providing care to specific patient groups under pre-determined protocols. The ongoing analysis of local initiatives may provide further options and greater detail in due course (Victorian Government Department of Human Services 2007).

The types of medication under consideration for ESP physiotherapy prescription include non steroidal anti-inflammatory drugs (NSAIDs), analgesics and potentially bronchodilators (Moore 2007). Certainly, the ability to prescribe and/or administer analgesics NSAIDs would arguably benefit the efficiency, and presumably the effectiveness, of many of the identified initiatives discussed earlier within this review. However, in addition to the necessary legislative changes required for physiotherapists to legally prescribe and/or administer such medications (if it is deemed advantageous for ESP physiotherapists to do this), further specific training and competency assessment is recommended. Given the potential for drug interactions, side effects and adverse reactions, if and when ESP physiotherapists request prescription/administration rights, more specific practitioner training than that specified previously, including a mandatory qualification/accreditation, is recommended (Moore 2007). Similar to the considerations for diagnostic imaging, should ESP physiotherapists gain the ability to prescribe certain medications, clear funding arrangements under the MBS would need to be ascertained.

Issues pertaining to other extended management practices

Extended therapeutic tasks specific to certain clinical areas (eg wound care or suture removal) would also conceivably need clear legislative provisions to be created. As aforementioned, defining these new provisions is beyond the scope of this review. However, in addition to the legal provisions needed to formally perform these roles, clear legal indemnity provision for therapists working in such roles would be required. The ability to provide legal cover for physiotherapists working in this realm would be the major constraint to implementing such a task.

Issues pertaining to organisational change

Studies have identified both potential and actual difficulties concerning organisational changes following the introduction of a new service or innovative role. With reference to the orthopaedic outpatient screening clinics, as the ESP physiotherapists were filtering patients who were suitable for conservative rather than surgical management, it was later realised that the orthopaedic specialists were spending far greater time in surgery due to a reduction in their patient consultations (Warwick & Belward 2004). Accordingly, this had substantial impact on the need for increased theatre time, and the availability of theatre nursing staff (Warwick & Belward 2004). Similarly, downstream impacts were identified; particularly the availability of traditional physiotherapy

and allied health staff. In several studies, a greater referral rate from ESP physiotherapists to standard physiotherapy services, in comparison to medical staff performing similar roles, was identified (Ball, Walton & Hawes 2007; Richardson et al. 2005). In this context, it should be noted that there is currently a shortage of allied health professionals, therefore shifting the burden of healthcare provision from one area of the service to another is not an efficient solution.

Broad recommendations pertaining to necessary organisational change specific to the ACT Health setting will be made following consideration of the Extended Practice Comparison and Feasibility of Extended Practice reports as part of the project. However, from the literature it is recommended that consideration be given to the broader implications of any ESP initiative; particularly implications that are seemingly removed from the direct outcomes of the initiative in question. Taking the example presented by Ball, Walton & Hawes (2007) and Richardson et al. (2005) previously, if an orthopaedic outpatient screening service clears orthopaedic waiting lists but overloads existing physiotherapy lists, the service will not be efficient or effective unless organisational change is also enacted at the level of the existing physiotherapy service; whether that change be additional staff recruitment or changes to the provision of service (eg service hours, consultation times) to enable this additional demand to be seen. Further to the barriers and enablers discussed previously, consideration of the practical organisational requirements of the ESP initiative are also necessary, such as consultation room availability. There is some evidence to suggest that if the service is not well planned, and the full scope of the practitioner is not able to be utilised, the addition of an ESP service can potentially inadvertently add patient steps in the clinical pathway (Hattam 2004; Harrison et al. 2001).

Summary

- Many of the reported ESP physiotherapy initiatives described in this review are not permissible under current Australian legislation. New forms of physiotherapy practice necessitate legislative and regulatory change at both State and Federal levels.
- Clarification of public health funding arrangements for novel physiotherapy roles is strongly recommended with any ESP initiative.

6.2.8

What is the broad applicability of the evidence to the perspectives of the ACT?

As aforementioned, most of the identified literature pertains to the UK environment; a healthcare setting which potentially has different needs, requirements and issues than that of ACT Health. Therefore, the applicability of such evidence to the ACT health setting is uncertain, particularly around discussions of implementation and practitioner training. Evidence from the grey literature is taken solely from the Australian perspective, and arguably has greater applicability to ACT Health. Nevertheless, the comparability of the settings in which ESP roles within Australia have been trialled to the specifics is a question best answered through consideration of current practices and the current ACT Health and DHCS Extended Physiotherapy Practice Review.

Nonetheless, it is clearly apparent from the literature that the potential for ESP physiotherapy roles, and subsequent benefits from these, exist. Most notably, it appears that the areas of orthopaedic triage and management, along with emergency department physiotherapy, are clinical areas where the evidence supports the ability of physiotherapists to perform extended roles (Kersten et al. 2007; Anaf & Sheppard 2007). In particular, substantial organisational benefits, such as to workforce efficiency and patient waiting time, are believed to exist.

Moreover, it is also apparent that, in order to develop and implement any ESP initiative, relevant barriers and enablers within the specific health setting must be identified and enacted upon. There is widespread consensus on the need to maximise enablers, whilst simultaneously minimising barriers, to achieve a successful ESP initiative. There is a broad base of support from the peer reviewed literature with certain recurring concerns, notably surrounding safety, competency, vulnerability to litigation and collateral impact, that appear to transcend specific settings. As such issues appear to transcend settings, the strategies that have been identified from the literature to minimise these concerns arguably maintain relevance for ACT Health and DHCS. These strategies will be complemented by practical implementation experience at a national level from the full results of the grey literature search. Similarly, the literature is consistent in the identification of several enablers; notably the support of other health professionals and the need for role clarity (Bethel 2005; Dawson & Ghazi 2004; Collins et al. 2000).

Consideration must also be given to the patient load before implementing any physiotherapy ESP role. Whilst benefits may be recorded for a specific ESP initiative, they also must be weighed against the costs and needs for the specific service. Given the relatively narrow scope of cases in which ESP physiotherapy can appropriately consult, caseloads may be too specific to warrant justification (Bethel 2005).

Given the relative lack of quantitative data to support numerous key performance indicators described in the literature, ACT Health and DHCS should ensure clear evaluation strategies are incorporated at the planning stage of any pilot or developmental phase. A range of outcome indicators should be used to cover organisational, stakeholder and clinically relevant measures; particularly in areas where there are gaps in the literature. Notably, clear plans for evaluation of cost and clinical outcomes are strongly recommended, and should be inherent within any ESP initiative.

Further recommendations on the applicability of the evidence to the perspectives of the ACT will be made after being informed by the ACT Health and DHCS

Extended Physiotherapy Practice Review, Extended Practice Comparison Report and Feasibility of Extended Practice Report; from which greater knowledge about the ACT Health setting, and thus the applicability of the evidence to it, will be gained.

Anaf, S & Sheppard, LA 2007, 'Physiotherapy as a clinical service in emergency departments: a narrative review', *Physiotherapy*, vol. 93, pp. 243-252.

Atkins, E 2003, 'Physiotherapists' experience of implementing their injection therapy skills', *Physiotherapy*, vol. 89, no. 3, pp. 145-147.

Australian Health Workforce Advisory Committee [AHWAC] 2006, *Health workforce planning and models of care in emergency departments*, AHWAC, Sydney.

Australian Physiotherapy Association [APA] 2008, *The Australian Physiotherapy Association Federal Budget Submission 2008-2009*, <<http://apa.advsol.com.au/independent/documents/submissions/2008-2009%20Pred-Budget%20Submission.pdf>>.

Australian Physiotherapy Association [APA] 2007a, *Australian Physiotherapy Association - Current issues*, <http://apa.advsol.com.au/physio_and_health/public/issues.cfm>.

Australian Physiotherapy Association [APA] 2007b, *Australian Physiotherapy Association Position Statement - Skin penetration techniques*, <http://apa.advsol.com.au/independent/documents/position_statements/public/Skin_Penetration_2007.pdf>.

Australian Physiotherapy Association [APA] 2006, *National measures will boost patient safety (media release)*, <http://apa.advsol.com.au/physio_and_health/media/download/2006/coag_national_registration.pdf>.

Australian Physiotherapy Association [APA] [WA Branch] 2006, *Future directions in maternity care - discussion paper*, APA [WA Branch], Nedlands, <<http://apa.advsol.com.au/independent/documents/submissions/FutureDirectionsMaternityCare.pdf>>.

Australian Physiotherapy Association [APA] 2005a, *Extend Medicare for physiotherapy patients (media release)*, <http://apa.advsol.com.au/physio_and_health/media/download/2005/PCSubmissionMR.pdf>.

Australian Physiotherapy Association [APA] 2005b, *The health workforce. Submission presented to the Productivity Commission*, <<http://apa.advsol.com.au/independent/documents/submissions/WorkforceEnquiry.pdf>>.

Australian Physiotherapy Association [APA] 2005c, *Submission presented to Department of Health, Government of Western Australia*, <http://apa.advsol.com.au/independent/documents/submissions/wa_workforce_consultation.pdf>.

Australian Physiotherapy Association [APA] 2004, *Position statement - Role definition in physiotherapy practice*, <http://apa.advsol.com.au/independent/documents/position_statements/public/RoleDefinition.pdf>.

Ball, STE, Walton, K & Hawes, S 2007, 'Do emergency department physiotherapy practitioner's [sic], emergency nurse practitioners and doctors investigate, treat and refer patients with closed musculoskeletal injuries differently?' *Emergency Medicine Journal*, vol. 24, no. 3, pp. 185-188.

Belthur, MV, Clegg, J & Strange, A 2003, 'A physiotherapy specialist clinic in paediatric orthopaedics: is it effective?' *Postgraduate Medicine*, vol. 79, pp. 699-702.

Bennett, CJ & Grant, MJ 2004, 'Specialisation in physiotherapy: a mark of maturity', *Australian Journal of Physiotherapy*, vol. 50, no. 1, pp. 3-5.

Bethel, J 2005, 'The role of the physiotherapist practitioner in emergency departments: a critical appraisal', *Emergency Nurse*, vol. 13, no. 2, pp. 26-31.

Chartered Society of Physiotherapy [CSP] 2002, *Physiotherapy consultant (NHS): Role, attributes and guidance for establishing posts*, Chartered Society of Physiotherapy, London,
<http://www.csp.org.uk/uploads/documents/csp_physioprac_pa56.pdf>.

Chartered Society of Physiotherapy [CSP] 2001, *Specialisms and specialists: guidance for developing the clinical specialist role*, Chartered Society of Physiotherapy, London,
<http://www.csp.org.uk/uploads/documents/csp_physioprac_pa23.pdf>.

Collins, JP, Hillis, DJ & Stitz, RW 2006, 'Task transfer: the view of the Royal Australasian College of Surgeons', *MJA*, vol. 185, no. 1, pp. 25-26.

Collins, K, Jones, ML, McDonnell, A, Read, S, Jones, R & Cameron, A 2000, 'Do new roles contribute to job satisfaction and retention of staff in nursing and professions allied to medicine?' *Journal of Nursing Management*, vol. 8, pp. 3-12.

Daker-White, G, Carr, AJ, Harvey, I, Woolhead, G, Bannister, G, Nelson, I & Kammerling, M 1999, 'A randomised controlled trial. Shifting boundaries of doctors and physiotherapists in orthopaedic outpatient departments', *Journal of Epidemiological and Community Health*, vol. 53, pp. 643-650.

Dawson, LJ & Ghazi, F 2004, 'The experience of physiotherapy extended scope practitioners in orthopaedic outpatient clinics', *Physiotherapy*, vol. 90, no. 4, pp. 210-216.

Department of Health WA 2006a, *Metropolitan clinical services planning - Cardiothoracic working group discussion report*, Department of Health Western Australia, Perth,
<<http://health.wa.gov.au/HRIT/clinicalplanning/docs/discussionreports/Cardiothoracic%20Report.pdf>>.

Department of Health WA 2006b, *Metropolitan clinical services planning - Neurology working group discussion report*, Department of Health Western Australia, Perth,
<<http://health.wa.gov.au/HRIT/clinicalplanning/docs/discussionreports/Neurology%20Report.pdf>>.

Department of Health WA n.d. a, *Metropolitan clinical services planning - Respiratory working group discussion report*, Department of Health Western Australia, Perth,
<<http://health.wa.gov.au/HRIT/clinicalplanning/docs/discussionreports/Respiratory>>

%20Report.pdf>.

Department of Health WA n.d. b, *Metropolitan clinical services planning - Rheumatology working group discussion report*, Department of Health Western Australia, Perth, <<http://health.wa.gov.au/HRIT/clinicalplanning/docs/discussionreports/Rheumatology%20Report.pdf>>.

Dickens, V, Ali, F, Gent, H & Rees, A 2003, 'Assessment and diagnosis of knee injuries: the value of an experienced physiotherapist', *Physiotherapy*, vol. 89, no. 7, pp. 417-422.

Ellis, B, Kersten, P & Sibley, A 2005, 'A Delphi study of the role parameters and requirements of extended scope practice in hand therapy', *British Journal of Hand Therapy*, vol. 10, no. 3-4, pp. 80-86.

Ellis, B & Kersten, P 2002, 'The developing role of hand therapists within the hand surgery and medicine services: an exploration of doctors' views', *British Journal of Hand Therapy*, vol. 7, no. 4, pp. 119-123.

Ellis, B & Kersten, P 2001, 'An exploration of the developing role of hand therapists as extended scope practitioners', *British Journal of Hand Therapy*, vol. 6, no. 4, pp. 699-702.

Gardiner, J & Turner, P 2002, 'Accuracy of clinical diagnosis of internal derangement of the knee by extended scope physiotherapists and orthopaedic doctors', *Physiotherapy*, vol. 88, no. 3, pp. 153-157.

Green, A, Perry, J & Harrison, K 2007, 'The influence of a postgraduate clinical master's qualification in manual therapy on the careers of physiotherapists in the United Kingdom', *Manual Therapy*, published online February 16, 2007.

Harrison, J, Rangan, A, Shetty, A & Robinson, C 2001, 'Reducing waiting times: physiotherapy shoulder assessment clinic', *International Journal of Therapy and Rehabilitation*, vol. 8, no. 2, pp. 57-59.

Hart, DL & Dobrzykowski, EA 2000, 'Influence of orthopaedic clinical specialist certification on clinical outcomes', *Journal of Orthopaedic & Sports Physical Therapy*, vol. 30, no. 4, pp. 183-193.

Hattam, P 2004, 'The effectiveness of orthopaedic triage by extended scope physiotherapists', *Clinical Governance*, vol. 9, no. 4, pp. 244-252.

Hattam, P & Smeatham, A 1999, 'Evaluation of an orthopaedic screening service in primary care', *Clinical Performance in Quality Healthcare*, vol. 7, no. 3, pp. 121-124.

Queensland Health n.d., *Overview of orthopaedic physiotherapy screening clinics and multidisciplinary service as an integrated component of orthopaedic outpatient services within Queensland Health*, Queensland Health, Brisbane.

Hogg, P & Holmes, K 2000, 'Interpretation of nuclear medicine by non-medical health care professionals: developments in the United Kingdom', *Journal of Diagnostic Radiography and Imaging*, vol. 3, pp. 63-71.

Jette, DU, Ardleigh, K, Chandler, K & McShea, L 2006, 'Decision-making ability of physical therapists: physical therapy intervention or medical referral', *Physical*

Therapy, vol. 86, no. 12, pp. 1619-1629.

Jibuike, OO, Paul-Taylor, G, Maulvi, S, Richmond, P & Fairclough, J 2003, 'Management of soft tissue injuries in an accident and emergency department: the effect of the introduction of a physiotherapy practitioner', *Emergency Medicine Journal*, vol. 20, pp. 37-39.

Jull, GA & O'Sullivan, P 2006, 'The future for postgraduate specialty clinical course work masters programs in Australia', *Australian Journal of Physiotherapy*, vol. 52, no. 2, pp. 75-76.

Kersten, P, McPherson, K, George, S, Lattimer, V, George, S, Breton, A & Ellis, B 2007, 'Physiotherapy extended scope of practice - who is doing what and why?' *Physiotherapy*, vol. 93, pp. 235-242.

Maddison, P, Jones, J, Breslin, A, Barton, C, Fleur, J, Lewis, R, McSweeney, L, Norgain, C, Smith, S, Thomas, C & Tilson, C 2004, 'Improved access and targeting of musculoskeletal services in northwest Wales: targeted early access to musculoskeletal services (TEAMS) programme', *BMJ*, vol. 329, no. 7478, pp. 1325-1327.

McClellan, C, Greenwood, R & Bengler, J 2006, 'Effect of an extended scope physiotherapy service on patient satisfaction and the outcome of soft tissue injuries in an adult emergency department', *Emergency Medicine Journal*, vol. 23, pp. 384-387.

McPherson, K, Kersten, P, George, S, Lattimer, V, Breton, A, Ellis, B, Kaur, D & Frampton, G 2006, 'A systematic review of evidence about extended roles for allied health professionals', *Journal of Health Services Research and Policy*, vol. 11, no. 4, pp. 240-247.

McPherson, P, Kersten, P, George, S, Lattimer, V, Ellis, B, Breton, A, Kaur, D & Frampton, G 2004, *Extended roles for allied health professionals in the NHS. Report for the National Co-ordinating Centre for NHS Service Delivery and Organisation*, <<http://www.sdo.lshtm.ac.uk/files/project/31-final-report.pdf>>.

Moore, B 2007, *Extended scope practitioners: our changing role in rural practice*. 9th National Rural Health Conference 2007, <http://9thnrhc.ruralhealth.org.au/program/docs/papers/moore_D3.pdf>.

Moore, JH, Goss, DL, Baxter, RE, DeBerardino, TM, Mansfield, TM, Fellows, DW & Taylor, DC 2005, 'Clinical diagnostic accuracy and magnetic resonance imaging of patients referred by physical therapists, orthopaedic surgeons, and nonorthopaedic providers', *Journal of Orthopaedic & Sports Physical Therapy*, vol. 35, pp. 67-71.

Mulligan, J 2003, 'Physiotherapists working as extended scope practitioners', *Physiotherapy*, vol. 89, no. 7, pp. 417-422.

Murray, RB & Wronski, I 2006, 'When the tide goes out: health workforce in rural, remote and indigenous communities', *MJA*, vol. 185, no. 1, pp. 37-38.

National Health Service [NHS] 2000, *The NHS plan: A plan for investment, a plan for reform*, UK Department of Health, Norwich, <http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4002960?IdcService=GET_FILE&dID=23612&Rendition=Web>

>.

National Institute of Clinical Studies [NICS] 2004, *National emergency department collaborative. Final report*, National Institute of Clinical Studies, Melbourne, <<http://www.nhmrc.gov.au/nics/data/mediacache/42466001153556818347/Final%20Report%20of%20the%20NICS%20Emergency%20Department%20Collaborative.pdf>>.

Oldmeadow, LB, Bedi, HS, Burch, HT, Smith, JS, Leahy, ES & Goldwasser, M 2007, 'Experienced physiotherapists as gatekeepers to hospital orthopaedic outpatient care', *MJA*, vol. 186, no. 12, pp. 625-628.

Pearse, EO, Maclean, A & Ricketts, DM 2006, 'The extended scope physiotherapist in orthopaedic outpatients - an audit', *Annals of the Royal College of Surgeons in England*, vol. 88, no. 7, pp. 653-655.

Peck, FH, Kennedy, SM & McKirdy, L 2001, 'The introduction of practitioner led hand clinics in South Manchester', *British Journal of Hand Therapy*, vol. 6, no. 2, pp. 44-47.

Peck, FH, Kennedy, SM, Watson, JS & Lees, VC 2004, 'An evaluation of the influence of practitioner-led hand clinics on rupture rates following primary tendon repair in the hand', *British Journal of Plastic Surgery*, vol. 57, no. 1, pp. 45-49.

Pickersgill, T 2001, 'The European working time directive for doctors in training', *BMJ*, vol. 323, no. 7324, p. 1266.

Productivity Commission 2005, *Australia's Health Workforce*, Commonwealth of Australia, Canberra, <http://www.pc.gov.au/__data/assets/pdf_file/0003/9480/healthworkforce.pdf>.

Richardson, B, Shepstone, L, Poland, F, Mugford, M, Finlayson, B & Clemence, N 2005, 'Randomised controlled trial and cost consequences study comparing initial physiotherapy assessment and management with routine practice for selected patients in an accident and emergency department of an acute hospital', *Emergency Medicine Journal*, vol. 22, pp. 87-92.

Roberts, C, Dolman, EA, Adebajo, AO & Underwood, M 2003, 'A national qualitative survey of community-based musculoskeletal services in the UK', *Rheumatology*, vol. 42, pp. 1074-1078.

Robertson, VJ, Oldmeadow, LB, Cromie, JE & Grant, MJ 2003, 'Taking charge of change: a new career structure in physiotherapy', *Australian Journal of Physiotherapy*, vol. 49, no. 4, pp. 229-231.

Sewell, JR 2006, 'Task transfer: the view of the Royal Australasian College of Physicians', *MJA*, vol. 185, no. 1, pp. 23-24.

Shack, N & Eastwood, DM 2006, 'Early results of a physiotherapist-delivered Ponseti service for the management of idiopathic congenital talipes equinovarus foot deformity', *Journal of Bone and Joint Surgery*, vol. 88-B, no. 8, pp. 1085-1089.

Sibbald, B, Shen, J, McBride, A, Zafar, R & Grimshaw, D 2002, *Changing skill mix in the NHS: A review commissioned by the human resource directorate of the Department of Health to support the NHS Changing Workforce programme*, UMIST, Manchester.

Smith, M & Buckley, S 2004, 'Collaborative working', *Emergency Nurse*, vol. 12, pp. 16-18.

Turnbull, C 2007, *Allied health professions: Extended scopes of practice*, <<http://aopa.org.au/Documents/Extended%20Scope%20of%20Practice.doc>>.

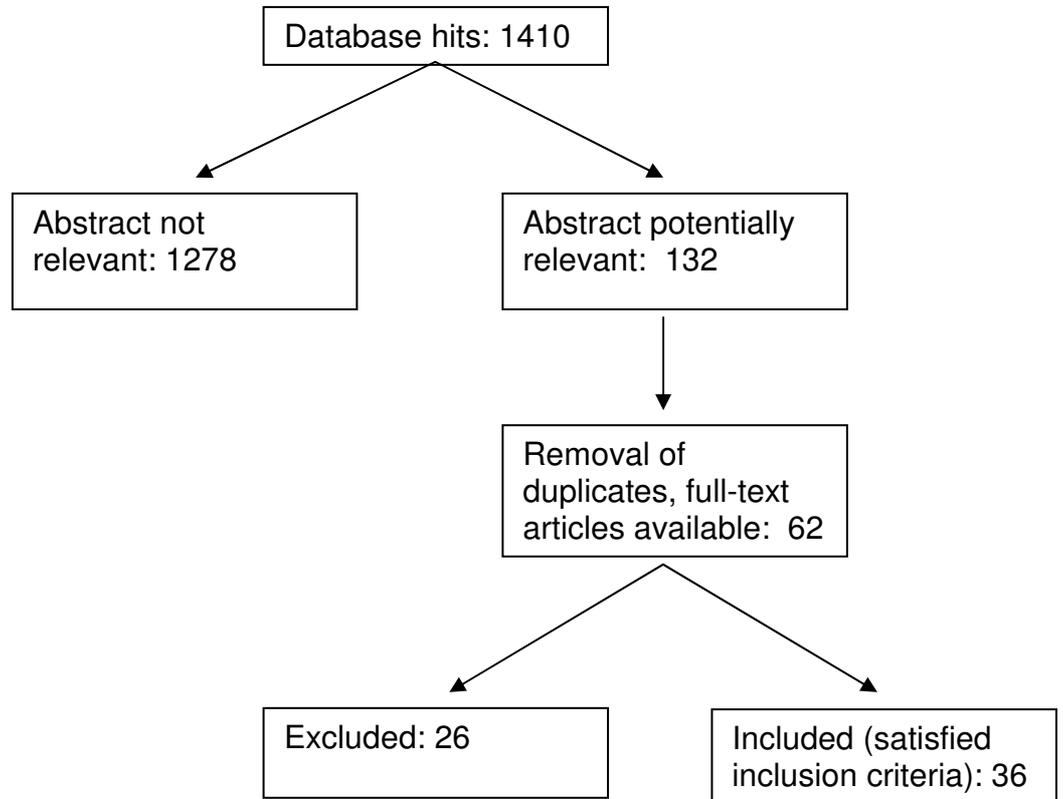
Victorian Government Department of Human Services 2007, *Better skills, best care - stage 1. Final report 2007*, State Government of Victoria, Melbourne.

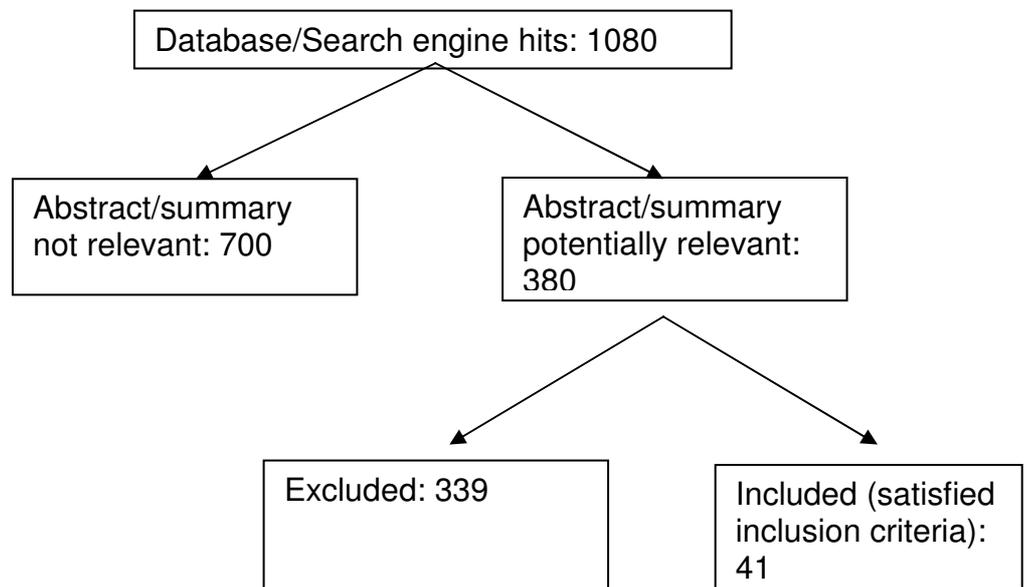
Warwick, D & Belward, P 2004, 'Hand therapist carpal tunnel clinic', *British Journal of Hand Therapy*, vol. 9, no. 1, pp. 23-26.

Weatherley, CR & Hourigan, PG 1998, 'Triage of back pain by physiotherapists in orthopaedic clinics', *Journal of the Royal Society of Medicine*, vol. 91, no. 7, pp. 377-379.

Woodhouse, L 2006, *Discussion paper: advance practice physiotherapy in Ontario*, Ontario Physiotherapy Association, Ontario.

Yong, C-S 2006, 'Task substitution: the view of the Australian Medical Association', *MJA*, vol. 185, no. 1, pp. 27-28.





Note: Not all articles have been cited within this review. Many included articles were commentaries or discussion papers that, whilst informing the review, did not specifically answer the questions posed.



ALLIED HEALTH

6.0 Current Practice Report

June 2008

Table of Contents of Current Practice Report

List of Tables and Charts	71
1.0 Introduction	72
2.0 Background	72
3.0 Overview	72
4.0 ACT Public Sector Practice Review Methodology	73
5.0 Focus Group Results	75
5.1 Women’s Health	75
5.2 Paediatrics	77
5.3 Therapy ACT	78
5.4 Cardiopulmonary	79
5.5 Rehabilitation	81
5.6 Acute Neurology	83
5.7 Hospital-based Outpatients and inpatient Orthopaedics	84
5.8 Community-based Outpatients	86
5.9 “Mop-up” Day	87
6.0 Summary/analysis of current practice	88
7.0 Definitions	90
Appendix 1 Focus Group Background Information Document	91

List of Tables and Charts

Tables of Focus Group Results:

1	Women's Health	75
2	Paediatrics	77
3	Therapy ACT	78
4	Cardiopulmonary	79
5	Rehabilitation	81
6	Acute Neurology	83
7	Hospital-based Outpatients and inpatient Orthopaedics	84
8	Community-based Outpatients	86

Charts:

1	Summary of current roles	89
---	--------------------------	----

1.0 Introduction

The ACT Health Workforce Policy and Planning Unit, Allied Health Advisor, physiotherapy service and Disability, Housing and Community Services (DHCS), Therapy ACT agreed to undertake a joint project to scope the feasibility of introducing extended practice roles in physiotherapy in the ACT public sector.

This report is the result of a collaboration with CAHE (Centre for Allied Health Evidence) and presents the findings of a four month project, which aimed to explore the literature on Extended Scope Practice physiotherapy (ESP physiotherapy) for a selection of physiotherapy roles and map the local role in the ACT public sector. The two project arms have been compared and used to develop recommendations regarding the feasibility of extended scope roles within ACT Health and DHCS.

2.0 Background of the project

Like other Australian States and Territories, ACT Health and Therapy ACT are systems facing tremendous challenges, including workforce issues. The workforce issues are cross sectoral and involve multiple stakeholders. To address these issues, ACT Health is working collaboratively to meet the challenges in a changing health environment.

New technologies, changing market choices for workers, the aging workforce, changing community expectations and generational change in attitudes to work participation are all key drivers impacting upon the health and community workforce and how it does and will meet the demands of the population. Additional factors include a population where the percentage of people with a disability and older people with chronic and complex disease is increasing and are being supported by increasingly sophisticated technologies and medications. These factors result in an imperative need to change our models of clinical service delivery.

Globally, health and community industries are exploring new ways of clinical service delivery that has seen the introduction of new support roles and extended practice roles for nursing and allied health. Evidence suggests that these roles can improve quality care and safely and effectively reduce hospital waiting lists, increase productivity by matching activities with the appropriate skill levels and thus relieving demands on more highly specialised health professionals, and increasing access to appropriate treatment. It is possible that this benefit can also be realised within the community sector.

3.0 Overview

Extended practice physiotherapy is an accepted role in the UK, for example, in delivering both primary and secondary care for musculoskeletal services. This role can include case management, ordering and interpreting diagnostic tests (such as scans, x-rays and blood tests), administering certain injections, and directly listing clients for surgery.

This four-month project has scoped the feasibility of introducing extended practice physiotherapy within ACT Health and DHCS, Therapy ACT. In doing so, it supports the Australian National Health Workforce Framework, the Australian Physiotherapy Association statement and the ACT Government's Canberra Plan vision for building a stronger community. It also aligns with Objectives 1 and 2 of the *ACT Health Workforce Plan 2005-2010*, a range of ACT Health service plans, including, but not exclusive to, the Surgical Services Plan and the ACT Health philosophy of collaboration. It also supports some key aspects of the DHCS Service Delivery Platform namely working in partnership, workforce sustainability and best practice and innovation.

4.0 ACT Public Sector Practice Review Methodology

To compliment the literature review, the second arm of this project was to assess the current practice of physiotherapists across ACT Health and DHCS. This is an essential part of exploring role expansion for any profession, as the acceptance/support of the profession is central to the success of role development.

Focus groups were used to assess the current practice environment through a qualitative analysis of the current role of physiotherapists in ACT Health and DHCS. The aim of the focus groups was to engage the physiotherapists in discussions regarding their current practice environment, their perceptions of role extension and the barriers to client care that role extension may overcome.

Demographics of Focus Groups

ACT Health is the public health system for Canberra and provides a tertiary level service to a catchment of around 500,000 people in the ACT and the surrounding southern area NSW. ACT Health employs around 4,000 people, including 67 physiotherapists; Calvary Healthcare employs 30 physiotherapists.

Therapy ACT is a program area of the Department of Disability, Housing and Community Services. It provides a range of multidisciplinary therapy and support services for people with delays in development and developmental disabilities aged from birth to age 65 who are residents of the ACT. Therapy ACT currently employs 112 staff including 11 physiotherapists.

Attendees

All ACT public sector physiotherapists were invited to attend a focus group in their chosen area of clinical specialty. The focus groups consisted of between 7 and 14 physiotherapists from clinically specific areas; all at varying points in their career, from Health Professional 1 (HP1) to Health Professional 4 (HP4) (see definitions for further clarification). The groups were devised according to clinical specialty and conducted in the following areas:

- Women's Health and Paediatrics (analysed separately)
- Therapy ACT (disability clients age 0-65 years)
- Cardiopulmonary
- Aged-care & Rehabilitation
- Acute Neurology
- Hospital-based Outpatients
- Community-based Outpatients
- "Mop-up" Day

Questions Asked

In preparation attendees were provided with written background information (Appendix 1), and asked to consider the following questions prior to attending the focus group:

1. What is your current role/experience working in ACT Public Health as a physiotherapist? *(10 minutes discussion time in focus group)*
2. Are there aspects of your current scope of practice which you do not utilise? If yes, which parts? *(10 minutes discussion time in focus group)*
3. What are the frustrations/blockages in your current scope of practice? *(20 minutes discussion time in focus group)*
4. What aspects of your scope of practice could be extended? *(20 minutes discussion time in focus group)*

The focus groups ran for one hour, at the beginning of each session the project officer presented an overview of the project and highlighted the aims and objectives of the focus groups. A set of ground rules was applied to each group, this included time allowances for each question (see above), a parking sheet for issues not relevant to this project and it was made clear that every participant would be given the opportunity to voice their thoughts. A scribe attended each session to capture the information provided by the clinicians which was recorded on butchers paper/white boards to enable the group to reflect upon their responses.

At the start of the focus groups the project officer stated that the context of the questions was the barriers and frustrations in relation to patient care.

To provide clarity in the report the findings are documented under the following headings:

- Currently within scope of practice - is considered to encompass skills set out by the Australian Physiotherapy Council within the “Australian Standards for Physiotherapy” (July, 2006). This document provides a benchmark of knowledge, skills and attributes of a safe and effective entry-level physiotherapist.
- “Grey” scope of practice – is considered to be roles that lack clarity as to whether they are core skills for physiotherapists. This may include skills used by a physiotherapist working at advanced clinical levels, but still using core scope of practice skills.
- “Out of scope” of practice – is roles/tasks that physiotherapists are not legally able to undertake.
- Barriers to patient care that ESP may address – this relates to the perceptions of the physiotherapists with regard to current barriers and frustrations to patient care and how extended scope may alleviate them.

The information gained from the Women’s Health and Paediatrics focus group for the purpose of the report has been separated into subgroups of Women’s Health and Paediatrics.

5.0 Focus Group Results

5.1 Women's Health

The Women's Health physiotherapists in attendance were from in and outpatient services from The Canberra Hospital, Calvary Healthcare and Community-based services, ranging from HP1's to HP4's.

Overview: Table 1

Current Role	Grey Scope of Practice	Potentially in Scope	Not currently in scope	Perceived Barriers addressed by ESP
Obstetrics & Gynaecological Physiotherapy	Shares list with Consultant Obstetrician in Obstetric Anal Sphincter Injuries clinic (current)		<ul style="list-style-type: none"> - Vaginal USS - Prescribing (e.g. antibiotics) - Wound Mx - Removal of sutures - PAP smears 	<ul style="list-style-type: none"> - Timely access to Obstetric services - Continuing of care (i.e. ward, clinic, Outpatient Physio)
	Undertaking bladder scans (USS)		Ordering/completing diagnostic tests: <ul style="list-style-type: none"> - Diagnostic USS - In/out catheters - Urodynamics 	<ul style="list-style-type: none"> - Timely access to appropriate investigations - Decrease number of "stops" in the patient's journey.
				Physiotherapists assessing patient's directly from the Gynaecology wait list

Current Role:

Obstetric and Gynaecological physiotherapy: includes pre and post-natal exercise, advice and education, bladder and bowel continence (including prolapse) and male continence. The majority of these roles are undertaken in both the acute and community setting, with the exception of male continence, which is only undertaken in the community.

This group of physiotherapists also acts as a specialist point of contact for the ACT and regional NSW. The role encompasses education to students, junior staff, inter-disciplinary lectures and the development of hospital-wide implemented policies.

"Grey scope of Practice"

Two potential grey areas of current practice were highlighted; undertaking bladder scans and a physiotherapist sharing a client list with a Consultant Obstetrician and Obstetrics registrar. Within the discussion it was noted that physiotherapists in the community setting undertake bladder scans, whereas physiotherapists at The Canberra Hospital do not. A lack of clarity existed with the physiotherapists from Calvary Healthcare in this matter.

A physiotherapist at The Canberra Hospital currently shares a clinic list with a Consultant Obstetrician and Obstetric registrar in an Obstetric Anal Sphincter Injuries clinic. The role of this clinic is to provide wound management, pelvic floor muscle training, sexual function and bladder and bowel management. Discussion occurred regarding whether this is considered to be role extension or a physiotherapist operating as a clinical expert.

“Out of scope of practice”

Currently out-of-scope of practice is the prescription of medications including modification of a limited number of drugs that are considered to impact on continence and constipation and the prescription of antibiotics for management of infected wounds in the Obstetric Anal Sphincter Injuries clinic and for outpatient mastitis clients. In addition to this in all areas of service delivery for this group of physiotherapists the prescription of limited pain medication and anti-inflammatories was discussed.

Wound management referred to the physiotherapist working in the Obstetric Anal Sphincter Injuries clinic and included management of infected wounds and removal of sutures.

Barriers to patient care addressed by ESP

It was proposed that if a physiotherapist assessed patients directly from the Gynaecology waiting list that this may result in more timely access to Gynaecological services and a reduction in elective Gynaecological surgery.

In the Obstetric Anal Sphincter Injuries clinic if the physiotherapist could undertake vaginal USS, wound management, removal of sutures, PAP smears and had limited prescribing rights (e.g. antibiotics) this may lead to more timely access to Obstetric services and improve continuity of care (i.e. the same clinician cares for the patient on the ward, in the clinic and in the outpatient physiotherapy department).

It was suggested that if the physiotherapist had the ability to prescribe a limited number of pain medication and anti-inflammatories in both the acute and community setting, it would result in a reduced number of “stops” in the patient journey, improved pain management and more effective physiotherapy interventions. In addition, if the physiotherapist had the ability to prescribe antibiotics for patients presenting with mastitis, this may significantly improve the patient’s outcome and reduce the length of the patient’s journey.

5.2 Paediatrics

The Paediatric physiotherapists in attendance were from in and outpatient services from The Canberra Hospital and Calvary, ranging from HP1's to HP4's.

Overview: Table 2

Current Role	Grey Scope of Practice	Potentially in Scope	Not currently in scope	Barriers addressed by ESP
Paediatric Physiotherapy		Access to pathology results (local operational issue)		- Improve Physio efficiency and timely patient care
			Ordering investigations such as X-rays (chest), sputum cultures and ABG's (inpatient)	- Timely access to appropriate investigations, improved efficiency of Physio treatment - ? Reduce length of stay
			Administering Botulinum toxin injections	- Timely and locally available treatment

Current role

Paediatric physiotherapy: includes the assessment and treatment of developmental delay, orthopaedics, acute and chronic respiratory conditions, Neonatal ICU (NICU) and CP. All, except the NICU patients are treated in both inpatient and outpatient settings.

This group of physiotherapists also act as a specialist point of contact for the ACT and regional NSW. The role also encompasses education to students, junior staff, inter-disciplinary lectures and the development of hospital-wide implemented policies.

Out of scope of practice

This could be divided into two broad categories of administering Botulinum toxin injections and ordering of investigations such as chest X-rays, sputum cultures and ABG's for inpatient clients.

Barriers to patient care addressed by ESP

It was proposed that if the role of the physiotherapist was extended to include the administration of Botulinum toxin injections this would provide more timely and locally available treatment options and reduce the number of "stops" in the patient's journey. Discussion occurred around the need for a strict credentialing and educational programs for this to occur safely and effectively.

In the inpatient environment if the physiotherapist could order investigations such as chest X-rays, sputum cultures and ABG's it was anticipated that this would result in more timely access to appropriate investigations, improve the efficiency of the physiotherapist and potentially reduce the patient's length of stay in hospital.

5.3 Therapy ACT

The Therapy ACT physiotherapists in attendance provide services in the client's home, school, crèche, family day-care and Therapy ACT facilities, ranging from HP3 to HP4.

Overview: Table 3

Current Role	Grey Scope of Practice	Potentially in Scope	Not currently in scope	Barriers addressed by ESP
Therapy ACT		Autonomous Prescription/signing equipment forms (ACTES)		- Timely access to equipment
	Currently make recommendations to Specialists regarding what m/s groups to inject with Botulinum toxin		Administering Botulinum toxin injections	- Timely and locally available treatment
	Hip surveillance clinics: - Ordering & interpreting X-rays to provide ongoing Mx		Referral to Medical Specialist	- Timely and locally available services

Current Role

The services provided by Therapy ACT all occur in the community environment and include assessment and treatment of clients with developmental delay and disabilities including muscular dystrophy, post-CP related surgery and CP. In addition to this they provide education to students and junior staff and develop physiotherapy policies and procedures.

"Grey scope of practice"

The physiotherapists identified that they are currently unable to prescribe/sign for equipment forms (ACTES). At present the physiotherapist completes the equipment form, which the patient then must take to their GP to be signed, before equipment can be obtained. It was discussed that this is a local organisational barrier and not outside current scope of practice.

There was much discussion with regards to Hip Surveillance clinics; in some states these clinics are managed by physiotherapists. The clinics involve the ordering and interpreting of hip X-rays, in order to monitor the progression of hip dysplasia.

Barriers to patient care addressed by ESP

As mentioned previously the Therapy ACT physiotherapists currently make recommendations with regards to which muscle groups would benefit from Botulinum toxin injections. It was suggested that if they were able to prescribe and administer Botulinum toxin injections this would provide locally available and timely access to Botulinum toxin treatment. It was discussed that this role would require close medical support and that currently the ACT paediatric medical team is in a period of transition.

If the physiotherapists were able to refer directly to Medical Specialists this would provide more timely access to appropriate appointments. At present if the physiotherapist considers that the patient requires a Medical Specialist opinion, the patient must have a GP consultation in order to obtain a referral, lengthening the patient's journey.

5.4 Cardiopulmonary

The Cardiopulmonary physiotherapists in attendance were from in and outpatient services from The Canberra Hospital and Calvary Healthcare, ranging from HP1's to HP4's.

Overview: Table 4

Current Role	Grey Scope of Practice	Potentially in Scope	Not currently in scope	Barriers addressed by ESP
Cardiopulmonary Physiotherapy			Administering & Prescribing pain medication	- Improved pain Mx, resulting in more timely Physio treatment
		Set-up of NIV, ventilator hyperinflations, tracheostomy decannulation and changing and administration of saline nebulisers (undertaken in other states)		- Timely access to appropriate treatment
		Access to pathology results (local operational issue)	Ordering investigations, e.g. sputum cultures, ABG's	- Timely access to appropriate investigations/results - Improve Physio efficiency - ? Reduce length of stay
		Administering/altering oxygen therapy		
	Diagnostic USS		Undertaking Bronchoscopies - diagnostic - treatment	- Increased access to diagnostic investigations and improve Physio treatment efficacy - ? Reduce length of stay in ICU

Current Role

Cardiopulmonary physiotherapy includes the assessment and treatment of acute and chronic respiratory conditions: ICU, post-surgical (cardiac, vascular, thoracic, general), oncology, Paediatrics, post-trauma, aged care as inpatients. The outpatient load includes: cardiac and pulmonary rehabilitation, acute and chronic respiratory conditions and pre-admission clinic (cardiac surgery).

In addition to this they provide education to students and junior staff (intra and inter-professional), develop physiotherapy policies and procedures and lecture at external courses and conferences.

Potentially in Scope

There was discussion around the set-up of NIV, ventilator hyperinflations, tracheostomy decannulation and changing, and administration of saline nebulisers. The physiotherapists indicated that these roles are being undertaken by physiotherapists in other states and therefore may not be considered "out of scope". Debate occurred around the staffing requirements to support physiotherapists in these roles: a 24-hour physiotherapy service may be necessary, and currently physiotherapists are only available from 7:30am until 9pm.

Discussion occurred regarding the administration and alteration of oxygen therapy, the physiotherapists indicated that this is an integral component of their routine assessment and treatment. It was acknowledged that oxygen is classed as a prescribed drug.

“Grey scope of practice”

Access to diagnostic USS was discussed to promote increased accuracy in the diagnostic skills of the physiotherapists. It was highlighted that this would allow a greater understanding of the pathophysiology, thus improve diagnostic accuracy.

Out of scope of practice

This could be divided into three broad categories of prescription of pain medication, ordering of investigations such as chest X-rays, sputum cultures and ABG's for inpatient clients and undertaking bronchoscopies for treatment and diagnostic purposes.

Barriers to patient care addressed by ESP

The physiotherapists felt that having the ability to administer pain medication would result in improved physiotherapist time management; currently delays occur in treatment when there is a reliance on other health professionals to administer pain medication. Additionally if they had prescribing rights to a limited range of pain medication this may result in an improvement in the client's pain management as well as the physiotherapist's efficiency and efficacy.

It was proposed that the patient's access to timely and appropriate investigations would be improved if the physiotherapists had the ability to order a limited number of investigations. It was also discussed that this may impact on clinical outcomes of physiotherapy treatment and potentially the patient's length of stay in hospital.

The ICU senior physiotherapists proposed that if they were able to undertake bronchoscopies within ICU this would lead to improved patient access to diagnostic tests and an improvement in the effectiveness of the physiotherapist's intervention. It was suggested that this may reduce the client's length of stay in ICU. The group indicated that strict education and credentialing would be required to up-skill the physiotherapists.

5.5 Rehabilitation

The Rehabilitation physiotherapists in attendance were from inpatient and community services from The Canberra Hospital (Aged Care and Rehabilitation Service) and Calvary Healthcare, ranging from HP1's to HP4's.

Overview: Table 5

Current Role	Grey Scope of Practice	Potentially in Scope	Not currently in scope	Barriers addressed by ESP
Rehabilitation Physiotherapy			Completing nerve conduction studies	- Timely access to appropriate investigations
			Physiotherapists assessing patient's directly from the Rehabilitation Doctor's wait list: - Ordering imaging - Prescribing/altering limited medication (e.g. PD drugs) - Corticosteroid injections	- Timely access to appropriate assessment/treatment - This would also potentially address the barrier of referral to Rehabilitation Specialists.
		Autonomous Prescription /signing equipment forms		- Timely access to equipment
			Administering & Prescribing pain medication	- Improved pain Mx, resulting in more timely Physio treatment
			Administering Botulinum toxin injections	- Timely access to appropriate treatment
			Referral to Medical Specialists	Timely access to appropriate appointments
			Administering corticosteroid injections	- Timely access to appropriate treatment, improved pain Mx

Current Role

Rehabilitation physiotherapy includes: assessment and treatment of acute and chronic neurological conditions (stroke, MS, PD, MND, neurosurgical, spinal cord and Acquired-Brain Injury) oncology, geriatric, multi-trauma, and rheumatology clients. In addition they assess and treat and the respiratory requirements of these client groups. They also provide education to students and junior staff (intra and inter-professional), develop physiotherapy policies and procedures and lecturing.

Out of scope of practice

It was discussed that there is currently a waiting list to see a Rehabilitation Consultant and therefore a physiotherapist to assess clients directly from this waiting list may reduce the waiting time. It was discussed that this role would be optimised if the therapist were able to complete the tasks mentioned in the table.

Barriers to patient care addressed by ESP

If the above mentioned corticosteroid and Botulinum Toxin injections, ability to order or undertake investigations and prescribing and administering rights were added to the physiotherapist's scope of practice it was suggested that this would decrease the length and number of stops in the patient's journey and improve the efficiency and efficacy of the physiotherapy interventions. If the physiotherapists working in the community settings were able to refer directly to Medical Specialists this would provide more timely access to appropriate appointments. At present if the

physiotherapist considers that the patient requires a Medical Specialist opinion, the patient must have a GP consultation in order to obtain a referral, lengthening the patient's journey and increasing the "stops" in the patient's journey.

5.6 Acute Neurology

The acute neurology physiotherapists in attendance were from inpatient services from The Canberra Hospital, ranging from HP1's to HP3's.

Overview: Table 6

Current Role	Grey Scope of Practice	Potentially in Scope	Not currently in scope	Barriers addressed by ESP
Acute Neurology		Administering pain, respiratory, and spasticity medication	Prescribing pain, respiratory and spasticity medication	<ul style="list-style-type: none"> - Timely access to appropriate treatment - Improve Physio outcomes - ? Reduce length of stay - Improved pain Mx
		Access to Pathology results (organisational issue)	Ordering investigations e.g. sputum cultures, ABG's, chest X-rays	<ul style="list-style-type: none"> - Timely access to appropriate investigations and results (improving physio efficiency)
	Ax need for Botulinum toxin injections & spasticity medication & provide feedback to medical team (current)		Administering Botulinum toxin injections	<ul style="list-style-type: none"> - Timely access to appropriate treatment
		Member of the Rehabilitation Assessment team		<ul style="list-style-type: none"> - Improved patient outcomes - Expert opinion on patient prognosis

Current Role

Acute neurology physiotherapy includes: assessment and treatment of neurosurgical clients (brain/spinal tumours, ABI (Acquired-brain injury), spinal fractures, aneurysm, sub-arachnoid/sub-dural haemorrhage), medical neurology clients (stroke, MND, PD) and respiratory conditions in these two client groups. In addition to this they provide assessment and treatment of oncology, infectious diseases, geriatric, and general spinal surgery clients. They are also responsible for student and staff (inter and intra-discipline) education and development of guidelines, policies and procedures for the physiotherapy department and the hospital.

Potentially in scope of practice

Currently, in order for a client to be accepted into Rehabilitation, the medical team is required to complete a referral, with input from Allied Health. It was suggested that an alternative approach that encompassed a multi-disciplinary "ward round" method may result in more timely and appropriate referrals. Discussion occurred around whether this would merely be a modification in service delivery or an extension of scope of practice.

Barriers to patient care addressed by ESP

If the physiotherapists role was expanded from assessing the need for Botulinum toxin injections to the prescription and administration of a limited amount of this medication, including the injection, clients may receive more timely intervention and improved clinical outcomes from physiotherapy.

5.7 Hospital-based Outpatients and Inpatient Orthopaedics

The hospital-based outpatient and inpatient orthopaedic, including ED, physiotherapists in attendance were from The Canberra Hospital and Calvary Healthcare, ranging from HP1's to HP4's.

Overview: Table 7

Current Role	Grey Scope of Practice	Potentially in Scope	Not currently in scope	Barriers addressed by ESP
Hospital-based Outpatients and Inpatient Orthopaedics	Ordering X-rays in ED as a primary contact (current)	Referral to Medical specialists	- Prescription of a limited number of medications - Ordering MRI's, CT scans, USS, ABG's – (N.B. MBS if done out of hospital environment)	- Timely access to appropriate investigations - Reduce number of "stops" in the patient journey - Improved pain Mx
		Direct listing for surgery	Performing arthroscopies or assisting in surgery	-?improve rehabilitation outcomes -Reduce medical burden
			- Autonomous Mx of simple fractures - Simple wound Mx (suturing)	- Timely access to appropriate treatment (improve pain Mx) -Reduce number of "stops" in patient journey -Reduced LOS -Reduce medical burden
			Independent Interpretation of imaging (e.g. X-rays, scans)	- Timely access to appropriate treatment -Reduce number of "stops" in patient journey -Reduced LOS -Reduce medical burden
		Assessment of patients off the Orthopaedic/ Neurosurgeon waiting list	- Prescription of a limited number of medications - Ordering MRI's, CT scans, USS, ABG's - Administering corticosteroid injections	- Timely access to appropriate treatment (improve pain Mx) - Reduce number of "stops" in patient journey - ? reduce elective surgery

Current Role

Hospital-based outpatients and inpatient orthopaedics: includes assessment and treatment of acute and chronic musculoskeletal injuries, lymphoedema and post-cancer conditions, post-hand surgery, post-fracture, haemophilia, post-orthopaedic surgery, hydrotherapy, primary contact in the Emergency Department, mobility assessments and pregnancy related musculoskeletal problems (Calvary Healthcare). In addition to this they are responsible for student and staff (inter and intra-discipline) education, development of guidelines, policies and procedures for the physiotherapy department and the hospital and lecturing at UC and on external courses.

"Grey scope of practice"

Discussion occurred regarding whether a primary practitioner in the Emergency Department with the capacity to order a controlled number of X-rays is within current scope of practice but operating in a novel manner of service delivery or out of current scope. In addition this practitioner is currently able to refer clients for a review by the Orthopaedic or Plastics registrar in ED. It was highlighted that there is a lack of consistency across ED departments and many areas of

healthcare with regard to referral for diagnostic tests and imaging, as well as referral to medical specialists.

Potentially in scope of practice

There was discussion regarding whether senior physiotherapists had the skills to directly list patients for surgery, it was commented that this would be very dependant on the physiotherapists and their relationship with the surgeon.

Out of scope of practice

A number of tasks/roles considered out of current scope of practice were discussed for physiotherapists in a variety of different roles, these are summarised in table 7. The roles discussed were expansion of the primary practitioner role already occurring in ED and physiotherapists assessing and managing patients directly from the Orthopaedic surgeon's waiting list.

A discussion occurred regarding physiotherapists undertaking arthroscopies or assisting in surgery; it was highlighted that this would have significant learning requirements and involve close working relationships with the Orthopaedic surgeons and Anaesthetists.

Barriers to patient care addressed by ESP

The barriers addressed by role extension were discussed for the roles mentioned above. Within the ED environment the physiotherapists suggested that ESP would reduce the client's length of stay within the department, reduce the number of "stops" in the client's journey, reduce the medical burden and improve pain management.

If physiotherapists operating in an extended role were able to assess clients from the Orthopaedic surgeons waiting list this may result in improved quality of life for the clients, timely access to appropriate appointments, reduced number of "stops" in the patient journey and it was suggested a reduction in clients requiring elective surgery. If the physiotherapist was not working in an extended role it was proposed that a change in service delivery may still impact on this.

It was proposed that if physiotherapists assisted in surgery or performed arthroscopies it may improve the rehabilitation outcomes, as the physiotherapist would be very clear on the procedure, and would reduce the burden on the medical team.

5.8 Community-based Outpatients

The community-based outpatient physiotherapists in attendance were from the Continuing Care and Child Youth and Womens teams who treat clients in community clinics and in the client's homes, ranging from HP1's to HP4's.

Overview: Table 8

Current Role	Grey Scope of Practice	Potentially in Scope	Not currently in scope	Barriers addressed by ESP
Community-based Outpatients			-Ordering increased scope of imaging/ diagnostics – (N.B. MBS currently ↑client costs) -Ordering of investigations in collaboration with pathology services (e.g. MSU, Vitamin D screening)	- Timely access to appropriate investigations - Reduce number of “stops” in the patient journey - Reduce client costs
			- Prescription of a limited number of medications (in collaboration with pharmacy)	- Reduce number of “stops” in the patient journey - improved access to timely pain Mx
			Referral to Medical specialists	- Reduce number of “stops” in the patient journey - timely access to appropriate appointments
			Independent Interpretation of imaging (e.g. X-rays, scans) – legally allowed to give client the diagnosis	-Timely access to appropriate treatment -Reduce number of “stops” in patient journey -Reduce medical burden
		Dry needling		-Broadened scope of Rx options
			Inject local anaesthetic as diagnostic tool	- Improve diagnostic accuracy

Current Role

Community-based outpatients: includes assessment and treatment of acute and chronic musculoskeletal injuries, post-fracture, post-orthopaedic surgery, mobility/falls assessments, lymphoedema, developmental assessments (age <12 months), continence, chronic pain, exercise prescription for chronic disease, respiratory and pregnancy related musculoskeletal problems in community clinics or the client's home. In addition to this they are responsible for student and staff (inter and intra-discipline) education, development of guidelines, policies and procedures for the physiotherapy department and the hospital and lecturing at UC and on external courses.

Out of scope of practice

Discussion occurred around the MBS system and that although ordering investigations is not out of scope of practice, the MBS rebate results in increased cost to the client for these investigations.

It was proposed that an effective method of introducing prescribing rights would be a collaborative approach with colleagues from pharmacy, with particular reference to elderly clients with multiple medications. This collaborative approach was also discussed with respect to pathology in relation to ordering of investigations such as MSU, blood tests (specifically ESR), Vitamin D screening, to ensure there is an ongoing management pathway for these clients.

Barriers to patient care addressed by ESP

The main barrier addressed by role extension in this group was a reduction in the length of the patient's journey and number of "stops" in the journey, by reducing the number of appointments the client has to have with the GP to access appropriate investigations and medication.

If the physiotherapists were able to refer directly to Medical Specialists this would provide more timely access to appropriate appointments. At present if the physiotherapist considers that the patient requires a Medical Specialist opinion, the patient must have a GP consultation in order to obtain a referral, lengthening the patient's journey and increasing the "stops" in the patient's journey.

5.9 "Mop-up" Day

The mop-up focus group included employees who had missed their relevant clinical focus group. The attendees provided responses in corroboration with previous groups.

6. Summary/analysis of current practice

On analysis of the current practice data extracted from the focus groups, it is apparent that the roles of ACT public health physiotherapists can be divided into two broad categories of acute and community care settings. It was clear from the focus groups that there is a vast amount of overlap of client groups common to both settings (see chart 1, page 91).

The “summary of current roles” chart highlights that physiotherapists are involved in the care of clients from every medical speciality, ranging from the acute/emergency environment through to care of clients with chronic conditions, spanning all age groups.

The literature indicates that the majority of extended scope roles have been developed at the transition between acute and community care, which may suggest that any trial phase within ACT Health and DHCS should target one of these client groups.

Common themes with regard to extension of scope were expressed across all clinical areas; divided into three main categories:

1. Extension of Practice Consultation:

- Assessment of patients from Orthopaedic/Gynaecology waiting list
- Hip surveillance clinic
- Referral to Medical Specialists

2. Extension of Diagnostics, including:

- In/out catheters
- Urodynamics
- MRI scans
- CT scans
- Bone scans
- Bronchoscopy
- Diagnostic ultrasound
- X-rays
- Blood tests
- MSU tests

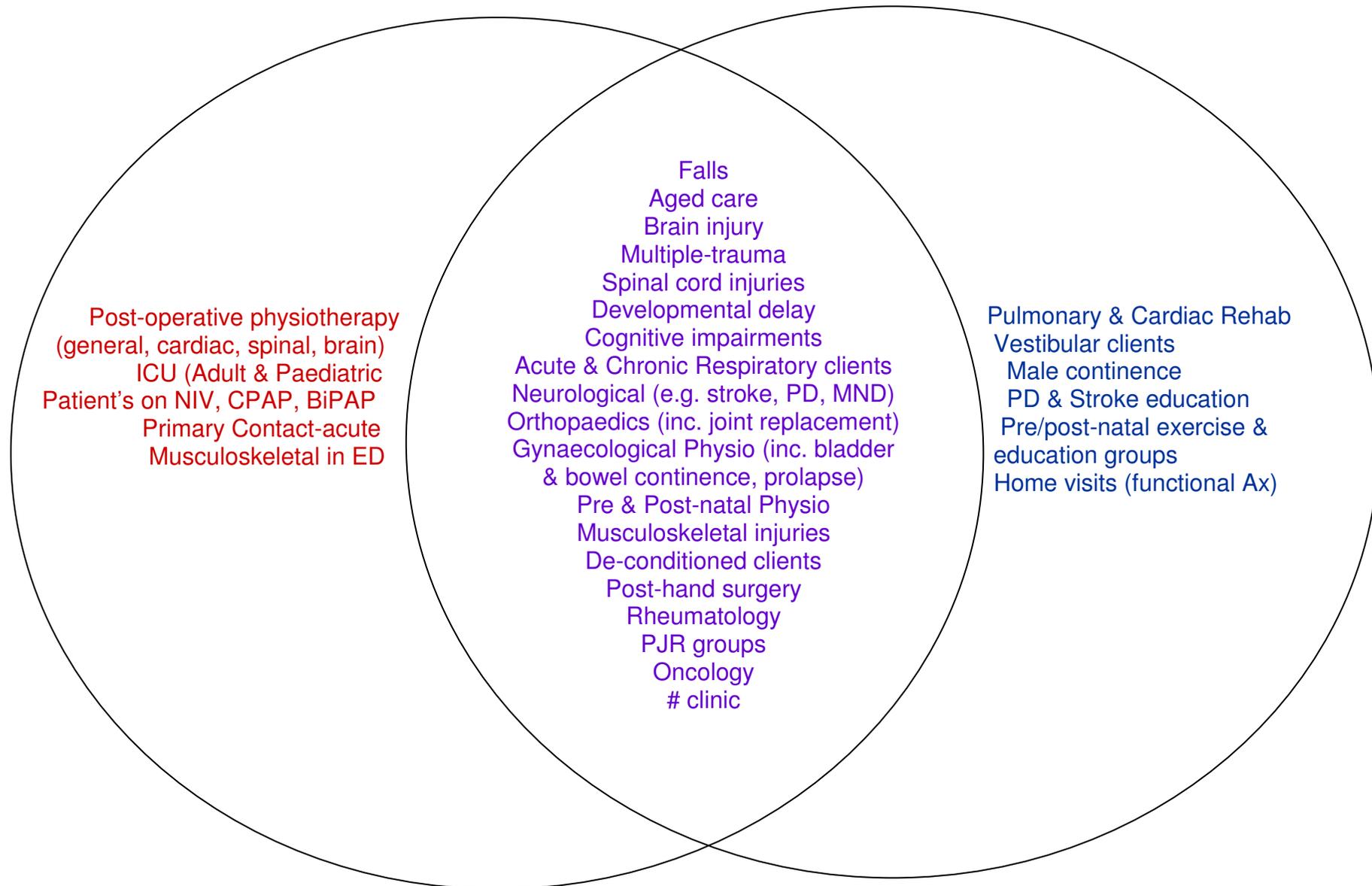
3. Extension of Therapeutics:

- Injections (Botulinum Toxin & Corticosteroid)
- Limited prescribing rights

Chart 1: Summary of current roles

Acute

Community



7. Definitions

Definition of a focus group:

“A **focus group** is a form of qualitative research in which a group of people are asked about their attitude towards a product, service, concept, advertisement, idea, or packaging. Questions are asked in an interactive group setting where participants are free to talk with other group members.” (Wikipedia, http://en.wikipedia.org/wiki/Focus_group)

Health Professional 1: is a physiotherapist in their first working year post-graduation,

Health Professional 4: is a physiotherapist considered to carry a part managerial load as well as expertise in a clinical field.



Physiotherapy Extended Scope of Practice Project: Phase 1

Background of the Project

This project aims to scope the feasibility of introducing extended practice physiotherapy within ACT Health and Department Disability, Housing & Community Services (DHCS), Therapy ACT. In doing so, it supports the Australian National Health Workforce Framework the Australian Physiotherapy Association statement and the ACT Government's Canberra Plan vision for building a stronger community. It also aligns with Objectives 1 and 2 of the *ACT Health Workforce Plan 2005-2010*, a range of ACT Health service plans, including, but not limited to, the Surgical Services Plan and the ACT Health philosophy of collaboration. In addition, it supports the DHCS Service Delivery Platform which clearly states an organisational commitment to workforce sustainability, with a strategy to maximise the Department's human resource capacity.

For the purpose of this project the definition of Extended Scope Physiotherapy (ESP) is considered to be:

An ESP physiotherapist is a clinical expert, who has the opportunity to develop and demonstrate expertise beyond the currently recognised scope of practice, including some aspect of job enhancement or expansion, involving the areas of extended therapeutics, diagnostics and practice consultation.

The purpose of the focus groups is to gather information from all sectors of the ACT Public Health Physiotherapy regarding the following questions:

1. What is your current role/experience working in ACT Public Health as a Physiotherapist?
2. Are there aspects of your current scope of practice which you do not utilise? If yes, which parts?
3. What are the frustrations/blockages in your current scope of practice?
4. What aspects of your scope of practice could be extended?

I would be grateful if you would give some consideration to these questions before attending the focus group and fill in the form on the second page of this document. If you have any questions please do not hesitate to contact me via e-mail on jo.morris@act.gov.au or through The Canberra Hospital Physiotherapy Department on 6244 2154.

I look forward to working with you all on this exciting project!

Kind Regards

Jo Morris
Project Officer – Extended Scope Physiotherapy Project: Phase 1
Allied Health Adviser's Office

Physiotherapy Extended Scope of Practice Project: Phase 1

I would be grateful if you would answer the following questions prior to attending the focus group:

Briefly, what is your current role?

1.

2.

3.

4.

Do you have any frustrations/blockages in your current scope of practice?

e.g. long waiting lists/times

1.

2.

3.

4.

I would be grateful if you could return this to me by close of business _____
and bring a hard copy to the meeting.

Many Thanks

Jo



ALLIED HEALTH

7.0 Comparative Report

June 2008

Table of Contents of Comparative Report

1.0	Outcomes: Services under consideration for extended scope	95
	Orthopaedic waiting lists	95
	Emergency Department	95
	Obstetrics	95
	Gynaecology	96
	Developmental delay/disability - Therapy ACT	96
2.0	Evidence based outcomes and benefits in targeted services	97
	Orthopaedic Triage Service	97
	Emergency Department	98
	Obstetrics & Gynaecology	100
	Paediatrics	100
	Scope of rationale table	103
3.0	Evidence based recommendations for successful implementation	105
	Implementation	107
	Recommendations	108
	Summary	108

1.0 Outcomes

Summary of Services within the ACT under consideration for role extension

As the literature review highlighted, the majority of the current ESP initiatives described are in orthopaedic/musculoskeletal fields, in particular within orthopaedic outpatient clinics and emergency department physiotherapy.

Orthopaedic Waiting Lists

At present in the ACT public health sector there are no similar roles within the orthopaedic outpatient area, however the focus group for this area identified this as a potential area for an ESP physiotherapy initiative.

This role was discussed in two parts; a physiotherapist employed to assess patients from the orthopaedic surgeon's waiting list to consider their suitability for physiotherapy/conservative management, using current scope of practice physiotherapy skills only. However the group proposed that if the assessing physiotherapist had a broader range of skills, outside the current scope of practice that this would significantly impact on the efficiency and efficacy of this service.

It was hypothesised that the ability to prescribe a limited list of medications, order investigations and administer corticosteroid injections would reduce the number of "stops" in the patient journey, provide timely investigations and pain management strategies.

Emergency Department

ACT Health currently has a physiotherapy role as a primary contact practitioner within the Emergency Department (ED). In this position the physiotherapist conducts assessments and treatment planning of acute musculoskeletal injuries within the "Fastrack" area of ED. Assessment includes the ordering of a pre-approved number of plain X-rays; a member of the medical team must interpret every X-ray ordered by the physiotherapist. The physiotherapist must discuss or refer patients to the medical team for prescription of medication, completion of Workers Compensation forms and management of fractures.

The focus group proposed that if the physiotherapist, with appropriate extra training and credentialing was able to interpret X-rays, autonomously manage simple fractures, have limited prescribing rights, autonomously manage simple wounds and have the ability to complete appropriate sick certificates that this would reduce the patients length of stay, reduce the burden on the medical team and negate the need for multiple contacts for the patient will multiple different practitioners.

Obstetrics

At present there is a physiotherapist working alongside a Consultant Obstetrician and Obstetrics registrar in the Obstetric Anal Sphincter Injuries clinic. The function of this clinic is to provide follow up for women with obstetric anal sphincter injuries, including wound management, pelvic floor muscle training, sexual function and bladder and bowel management. It was proposed that role extension for the physiotherapist may include limited prescribing rights (e.g. antibiotics and pain medication), autonomous

wound management (e.g. removal of sutures), and the ability to undertake vaginal USS and PAP smears. It was suggested that this ESP physiotherapy initiative may reduce the burden on the medical team, reduce the number of clinicians involved in the patient's care and improve continuity of care. It was also proposed that the ESP physiotherapist could run extra clinics that the Consultant Obstetrician would not need to attend, therefore resulting in more availability of these services without increasing the medical burden.

Gynaecology

The focus groups identified that services could be improved by establishing an Extended Scope Practice physiotherapy clinic which provides assessment to clients from the Gynaecology waiting list to improve surgical waiting times. Similar to the Orthopaedic clinic proposal this could be conducted in two ways; a physiotherapist could operate a clinic that only used core physiotherapy skills, thus introducing a change in service delivery. Alternatively the efficacy and efficiency of the clinic may be increased if the physiotherapist could perform functions of role extension in diagnostics, therapeutics and practice consultation. This may include direct listing for surgery, limited prescribing rights and ordering diagnostics such as USS and Urodynamics. It was proposed that this may reduce the patients waiting time and may result in a reduction in elective surgery.

Developmental delay/disability - Therapy ACT

Two potential areas for ESP initiatives within DHCS were identified from the focus group. A physiotherapy-led hip surveillance clinic to monitor hip dysphasia in Paediatric clients; this would involve ordering and interpreting hip/pelvis X-rays and autonomous management, including referral to Medical Specialists. It was suggested that this would provide local and timely assessment for this client group.

An area that warrants further investigation is Botulinum toxin injections; this is currently unavailable in the ACT for this client group. Discussion occurred around the structure required to support a Botulinum toxin injection clinic, it was felt that availability of Paediatric Orthopaedic Specialists was integral to the success of an ESP physiotherapy initiative in this field. This medical team is currently in a period of transition. However in principle there was agreement that an ESP physiotherapy role in this area would improve patient access to locally available services.

An additional area warranting future consideration is Botulinum Toxin injection clinics that encompass both adult and paediatric client groups, providing a service for clients with acute and chronic neurological conditions.

2.0 Supporting Evidence for Targeted services

Orthopaedic Triage Service

There are variable models of delivery noted in the literature, with the ESP physiotherapist commonly involved in the triage process itself, and utilising their high level of diagnostic assessment skills to establish a management plan. It was not universal however, that the ESP physiotherapist was responsible for enacting that plan or providing treatment; in some models the general physiotherapy service received the downstream referrals. Clinical sessions were held in a variety of locations and at a variety of times such that access to the consultant or medical practitioner was different. There has been no formal evaluation that can recommend any one model of delivery of orthopaedic ESP physiotherapy over another.

Frequently reported in the literature were roles with ESP physiotherapists present in outpatient clinics within, or concurrent to, an orthopaedic consultant's clinic (Kersten et al 2007; Ellis & Kersten 2001; Oldmeadow et al. 2007; Pearse, Maclean & Ricketts et al 2006). Referrals from the general practitioner to the orthopaedic surgeon are screened to identify patients who are unlikely to require surgical intervention or to have a serious medical condition, with these triaged referrals comprising the list for the ESP physiotherapy clinic. Knee, back and shoulder conditions were frequently cited as being appropriate for orthopaedic ESP physiotherapy clinic initiatives. Therefore these may be the most appropriate lists to target for a first stage pilot.

Further initiatives were also identified from the literature, within general orthopaedics, neurological spinal screening units, specialist hand services and condition-specific clinics, such as for carpal tunnel syndrome (Oldmeadow et al. 2007; Belthur, Clegg & Strange 2003; Pearse, Maclean & Ricketts 2006; Moore et al. 2005; Hattam 2004; Dawson & Ghazi 2004; Warwick and Belward 2004; Kersten et al. 2007; McPherson et al. 2006), which may be worth future consideration within ACT Health and DHCS.

It is not within the scope of this document to provide evidence for the efficacy of all physiotherapy treatments under discussion, however in relation to outpatient services the recent evidence may be summarised as: *Level II evidence* to recommend physiotherapy management for individuals with OA knee (Pelland et al 2004, Brosseau et al 2004). Physiotherapy appears to have positive effects on pain and function that may be sustained in the long-term and reduce the need for surgical intervention (APA knee joint Osteoarthritis Position statement, 2001). *Level I evidence concerning* the benefit of exercise within OA knee. (APA Position Statement 2006 Evidence regarding therapeutic exercise in physiotherapy)

There is level I and II evidence concerning the effectiveness of certain physiotherapy management modalities (advice, exercise, manipulation, behavioural modification and McKenzie programmes) in the APA Low Back Pain position statement 2001.

Whilst there is evidence for the use of exercise for shoulder problems there is a paucity of research to investigate wide physiotherapy interventions. (APA shoulder pain position statement 2002)

For clarification of "levels of evidence" see:
www.nhmrc.gov.au/consult/files/levels_grades05.pdf

Expected Outcomes and Benefits

- **Reducing burden on medical practitioners:** There is evidence to support that ESP physiotherapists can reduce the burden on medical staff by taking referrals more appropriate for conservative management. A high proportion of referrals received at secondary specialist clinics do not require surgical intervention, and thus a high percentage reportedly can be successfully managed conservatively by ESP physiotherapists (Pearse, Maclean & Ricketts et al 2006).
- **Reducing consultant clinic time:** ESP physiotherapy in orthopaedic settings can release staff time, thereby freeing up and saving consultant sessions. Belthur, Clegg & Strange (2003) calculated that the introduction of physiotherapy led screening clinics in a general paediatric orthopaedic clinic had saved 82 consultant sessions over three years. This saved time was concluded to be put to greater and more effective use in the management of urgent and more complex cases, whilst the release of staff time was also identified as enabling them to participate in further education and training of junior medical staff (Peck, Kennedy & McKirdy 2001; Belthur, Clegg & Strange 2003; Shack & Eastwood 2006; Belthur, Clegg & Strange 2003).
- **Reduced patient waiting time:** The mean reduction in patient waiting time, where reported in percentage terms, across reviewed orthopaedic initiatives was 76% [range 42-90%] (Hattam & Smeatham 1999; Belthur, Clegg & Strange 2003; Maddison et al. 2004; Smith & Buckley 2004).
- **Improved Clinical Management:** Gardiner and Turner (2002) provided evidence that 100% of patients listed for arthroscopy by ESP physiotherapists had operable lesions at arthroscopy compared to 79% listed by doctors; however the rate of false negatives (missed cases) is unclear. Such a rise in diagnostic accuracy may also provide benefits to all stakeholders in ensuring that invasive and costly interventions (e.g. arthroscopy) are reserved for those who really need them.
- **Patient Satisfaction:** A variety of orthopaedic initiatives targeting both adult and paediatric patient populations have reported a high level of patient satisfaction ranging from 77 – 90% (Oldmeadow et al. 2007; Belthur, Clegg & Strange 2003; Shack & Eastwood 2006; Pearse, Maclean & Ricketts 2006; Maddison et al. 2004).

Emergency Department

The literature has most frequently identified that ESP physiotherapists in the emergency setting are primarily involved with the assessment and management of adult patients with acute musculoskeletal injuries (Bethel, 2005; Anaf & Sheppard 2007). However broader areas in which the ESP physiotherapists were able to deliver patient interventions have also been described, albeit more infrequently, including acute fracture management of chest/rib fractures, whiplash, torticollis, haematoma and burns (Anaf & Sheppard 2007; McClellan, Greenwood & Benger 2006). Overall, the scope of areas within which ESP physiotherapy has potential applicability within the ED setting is vast, including geriatric, musculoskeletal and cardiorespiratory conditions (AHWAC 2006). Australian based initiatives involve the following reported tasks; ordering and interpretation of radiographic imaging, plaster application, management of fractures and minor wounds, assessment of the need for analgesia, and referral to other medical disciplines as appropriate (Victorian Government Department of Human Services 2007). In contrast to the orthopaedic initiatives the ED ESP physiotherapy initiatives were not closely involved in the triage

process, and in the majority of studies within the ED the triage nurse continued to perform this role exclusively (McClellan, Greenwood & Bengner 2006; Richardson et al 2005; Smith & Buckley 2004; Jibuike et al 2003). Given the current emergency physiotherapist role within acute injury management in ACT Health the extension of this core and established area would seem the most appropriate target for a first stage pilot.

Expected Outcomes and Benefits

- **Reduced burden on medical staff:** ESP physiotherapy within the emergency department has been suggested to release medical staff for more time-consuming critical acute interventions (Anaf & Sheppard 2007; Bethel 2005), thereby impacting upon the clinical outcome of a wider base of patients than has been assessed in the literature to date. There is insufficient evidence to date to confirm this to be consistent for all settings.
- **Improved ED KPI:** Emergency department waiting times and cubicle occupancy times were reported to be reduced after the introduction of ESP physiotherapy practitioners (Smith & Buckley 2004 as cited in Bethel 2005; Hughes et al. 2003 as cited in Bethel 2005). Whether ESP physiotherapy can contribute to other key indicators in emergency care (for example bed block or ambulance bypass) has also yet to be demonstrated.
- **Reduced waiting time:** Whilst patients seeing ESP physiotherapists may have their waiting times reduced (Smith & Buckley 2004 as cited in Bethel 2005; Hughes et al. 2003 as cited in Bethel 2005), benefits to other patients may be apparent. Average waiting times for all emergency department patients, irrespective of presenting complaint, reduced by approx 14-60 minutes in several studies in which ESP physiotherapy initiatives were involved (McClellan et al. 2004 as cited in Bethel 2005; Stainforth et al. 2003 as cited in Bethel 2005; Hughes et al. 2003 as cited in Bethel 2005) it was suggested that the time benefits reported were the result not of the introduction of physiotherapists, but the introduction of another employee into the emergency department environment (Bethel 2005).
- **Improved clinical Management:** ESP physiotherapists can utilise high level musculoskeletal diagnostic skills to ensure soft tissue injuries are accurately identified and managed. Reviews have identified that physiotherapists are less likely to miss significant injury and make inappropriate referrals to trauma clinics than senior house officers (Bethel 2005).
- **Patient Satisfaction:** Patients consulting ESP physiotherapists seem to be accepting of them in place of seeing traditional medical professionals, particularly with reference to the emergency department setting (Bethel 2005). Indeed, patient satisfaction with the ESP physiotherapists was often greater in comparison to other medical professionals. Both McClellan, Greenwood & Bengner (2006) and Richardson et al. (2005) report significantly increased patient satisfaction in patients who were seen by emergency department physiotherapists in comparison to nurse practitioners and doctors ($p=0.048$ & $p<0.001$, respectively). However, to some extent this may be influenced by the decreased waiting times associated with such initiatives.

Considerations

There are doubts expressed over the ability of narrowly defined clinical ESP services (for example acute knee injury clinics) to provide efficient resource utilisation,

especially outside of large regional acute hospital environments (Bethel 2005). Furthermore whilst positive outcomes have been expressed there is a paucity of evidence concerning the impact of services on other notable ED outcomes (e.g. bed block and ambulance bypass). The impact of ESP physiotherapy initiatives on functional outcome for patients in the emergency department has been queried, with Richardson et al. (2005) describing a non statistically significant trend for patients seen by the ESP physiotherapist to take longer to return to usual function following musculoskeletal trauma. The literature reveals that the ESP services offered in the ED have not been organised on a 24-hour basis, unlike the other clinical services. Whilst this may be due to the inability to staff such a service in a profession unused to shift work – it has also been assessed as an opportunity to allow junior medical staff exposure to soft tissue injury in the emergency department and ensure the training needs of junior medical staff are met (Peck, Kennedy & McKirdy 2001).

Obstetrics & Gynaecology

There have not been any realised opportunities for extensions of practice within women's health care identified as yet within the literature. However, an APA report discussing future directions in maternity care did identify that "Consultant and research posts should be created for clinicians other than doctors to provide career paths and promote retention of professionals with specialist expertise" (APA [WA Branch] 2006, p.6).

There is a substantial body of evidence of the efficacy of physiotherapy in continence management. One of the most recent studies, published in the Australia and New Zealand Journal of Obstetrics and Gynecology, found that 82 per cent of women were cured of stress urinary incontinence after one episode of physiotherapy care (Neumann et al 2005). Pelvic floor muscle (PFM) exercises are the mainstay of conservative treatment, but research has found that many women find it difficult to perform PFM exercises correctly. Research at Curtin University revealed that 23 percent of both the continent and incontinent women studied were performing PFM exercises incorrectly, therefore the use of physiotherapists to undertake individual exercise assessment and supervised training programs in the correct performance of pelvic floor muscle exercises counts (Thompson et al 2007).

Ultrasound imaging is a reliable and valid modality used by physiotherapists to evaluate muscle structure and form and to examine patterns of muscle activation. Research has shown that visual feedback of the pelvic floor muscles using ultrasound is as effective as tactile feedback via a digital examination (Sherburn et al 2005). This makes ultrasound a valuable tool for pelvic floor muscle evaluation in situations where a digital examination is not possible or desirable.

Expected Outcomes and Benefits

The literature in the area of Obstetrics and Gynaecology is silent, however, benefits are likely to be similar to those in an orthopaedic setting; including reduced waiting times, improved clinical management, reduced burden on medical personnel and increased patient satisfaction.

Paediatric Orthopaedic Initiatives

There is reduced evidence available regarding the role of ESP initiatives in the Paediatric arena; however the literature is uniformly positive and supportive. There

appears to be evidence supporting the potential for ESP practice within the specific management of hip subluxation in Cerebral Palsy.

A recent systematic review has revealed that 60% of children not walking by the age of 5 would develop hip subluxation and that a screening program based on X-ray migration assessment could clearly identify children at risk who required orthopaedic referral at an earlier age (Gordon and Simkiss 2006). A coordinated approach has been taken by orthopaedic surgeons and physiotherapists at the Royal Children's hospital in Melbourne with regard to such hip surveillance. Physiotherapists specially trained in spastic hip management, radiological measurement and clinical examination (although not designated ESP) work alongside the orthopaedic surgeon in a hip surveillance clinic. Evaluation of the service found that earlier detection of spastic hip disease was occurring, resulting in earlier surgical intervention with a concomitant reduction in the requirements for reconstructive or salvage surgery (Dobson et al 2002).

Expected Outcomes and Benefits

- **Reduce Burden on Medical Staff:** ESP physiotherapy in orthopaedic settings can release staff time, thereby freeing up and saving consultant sessions. Belthur, Clegg & Strange (2003) calculated that the introduction of physiotherapy led screening clinics in a general paediatric orthopaedic clinic had saved 82 consultant sessions over three years. This saved time was concluded to be put to greater and more effective use in the management of urgent and more complex cases, whilst the release of staff time was also identified as enabling them to participate in further education and training of junior medical staff (Peck, Kennedy & McKirdy 2001; Belthur, Clegg & Strange 2003).
- **Reduced waiting times:** In a general paediatric orthopaedic clinic described by Belthur, Clegg & Strange (2003), patient waiting time decreased by an average of 44 weeks over a 12-month period for non-urgent cases, with waiting times continuing to fall by an average of 20 weeks over a subsequent 2 year period. Waiting times for urgent or complex cases decreased by approximately 10 weeks over a 12-month period, with this decrease maintained throughout the remainder of the pilot initiative (Belthur, Clegg & Strange 2003).
- **Improved Clinical Outcomes:** Of the few paediatric initiatives reported within the identified literature, detailed consideration of clinical outcomes is lacking. Indeed, a general paediatric orthopaedic initiative reported by Belthur, Clegg & Strange (2003) have no consideration to specific clinical outcomes, other than reporting the occurrence of necessary referral to orthopaedic consultants. For ESP physiotherapists leading a paediatric congenital talipes equinovarus deformity service, 97.5% of patients managed via this initiative achieved a reduction of deformity, which was felt to be the result of the expertise and continuity of care from the ESP physiotherapists (Shack & Eastwood 2006).

Considerations

Despite their importance to the development and ongoing sustainability of any extended scope role, cost outcomes and productivity gains are infrequently considered in the grey literature. Moreover, if the cost outcomes and information on cost-efficiency/productivity was reported to a greater extent, it is unclear whether this would represent the true costs associated with the implementation of an ESP physiotherapy role due to the ad-hoc nature of the reported initiatives. As such the financial outcomes of ESP physiotherapy roles are largely unknown. However,

considerable workforce savings and productivity gains have the potential to be made. It is proposed that by increasing the effectiveness of the health service, typically by reducing the number of steps involved in patient journeys, will increase the cost-effectiveness of the service (APA 2005b). For instance, the duplication of roles, as occurs with the use of doctors in 'gatekeeper' roles that serve only to further refer patients, is seen to pose a significant cost (APA 2005b).

It should be noted that many of the outcomes listed above were not fully quantified from the research and whether they translated into improved patient clinical outcomes was not possible to assess. It is recommended that the full literature review is taken in to account when service outcomes and benefits are under discussion.

Please note that the outcomes and KPIs identified from the literature, and are not considered to be a full recommendation of KPIs to be utilised in any ESP physiotherapy trial. Due to the ad-hoc nature of many reported evaluations, KPIs were infrequently planned. Indeed, cost-effectiveness, productivity gains and cost outcomes were infrequently reported, as were condition-specific clinical outcomes; both of which would arguably form integral KPIs within any possible ESP physiotherapy trial.

Scope and Rationale Table

	Extended diagnostics	Extended therapeutics	Extended practice consultation	Rationale for consideration of a trial
Womens health	<ul style="list-style-type: none"> • Vaginal USS • Diagnostic Ultrasound • Pap smears • Urodynamics 	<ul style="list-style-type: none"> • Wound management • Removal of sutures • Limited prescribing rights (e.g. antibiotics) 	<ul style="list-style-type: none"> • Assessment of patients direct from the Gynaecological wait list • Autonomous Obstetric Anal Sphincter Injuries clinic 	<p>POTENTIAL TRIAL</p> <ul style="list-style-type: none"> • Current working relationship with Consultant Obstetrician • Level 1 supporting evidence of conservative Mx • Length of Gynaecology Waiting List • ? may result in reduced Conversion to surgery rate • Health Promotion • Addresses chronic disease
Paediatrics	<ul style="list-style-type: none"> • Chest X-ray • Sputum cultures • ABG's 	<ul style="list-style-type: none"> • Administrating Botulinum Toxin injections 		<p>FUTURE CONSIDERATION</p> <ul style="list-style-type: none"> • Currently Paediatric Orthopaedic team in period of transition • Needs specialist clinic/MDT approach – due to sedation requirements
Cardio-pulmonary	<ul style="list-style-type: none"> • Chest X-ray • Sputum cultures • Bronchoscopies (diagnostic) • ABG's • Diagnostic USS (consolidation vs pleural effusion) 	<ul style="list-style-type: none"> • Set-up of NIV, • Ventilator hyperinflations, tracheostomy decannulation changing/administration of saline nebulisers • Administering & Prescribing pain medication • Undertaking Bronchoscopies 		<p>FUTURE CONSIDERATION</p> <ul style="list-style-type: none"> • Difficulty with staffing for 24 hour service • Risk of becoming Bronchoscopy technicians for the Hospital • Alterations in service delivery or team working may solve identified barriers and frustrations
Therapy ACT	<ul style="list-style-type: none"> • Ordering and interpreting hip X-rays 	<ul style="list-style-type: none"> • Botulinum Toxin injections 	<ul style="list-style-type: none"> • Therapist run Hip surveillance clinic 	<p>FUTURE CONSIDERATION</p> <ul style="list-style-type: none"> • Current gap in service delivery for clients with hip dysplasia • Minimal up-skilling required (radiology interpretation & ongoing Mx) • Still requires medical support (for onward referral) • Evidence from Australian initiatives that large clinical impact possible <p>N.B. For Botulinum Toxin injections see Paeds this is not currently being considered</p>

Key:

USS: Ultrasound Scan

Mx: Management

ABG's: Arterial blood gases

NIV: Non-invasive ventilation

	Extended diagnostics	Extended therapeutics	Extended practice consultation	Rationale for consideration of a trial
Rehabilitation	<ul style="list-style-type: none"> • Chest X-ray • Ordering of MRI, CT. • Undertaking nerve conduction studies 	<ul style="list-style-type: none"> • Administering & Prescribing pain medication • Administering Botulinum Toxin / corticosteroid injections 	<ul style="list-style-type: none"> • Assessment of patient's directly from the Rehabilitation Doctor's wait list: 	<p>FUTURE CONSIDERATION</p> <ul style="list-style-type: none"> • Length of Rehabilitation Doctor's waiting list (only six weeks) • Difficulty in defining and clarifying single role - ? may have Botulinum Toxin clinic input
Acute Neurology	<ul style="list-style-type: none"> • Chest X-ray • Sputum cultures • Chest X-ray • ABG's 	<ul style="list-style-type: none"> • Prescribing pain, respiratory and spasticity medication • Administering Botulinum Toxin injections 		<p>FUTURE CONSIDERATION</p> <ul style="list-style-type: none"> • Lack of clear ESP physiotherapy role identified within the focus groups • Alterations in service delivery or team working may solve identified barriers and frustrations
Orthopaedics & Hospital-based Outpatients Including the Emergency Department	<ul style="list-style-type: none"> • Ordering MRI's • CT scans • USS • ABG's 	<ul style="list-style-type: none"> • Prescription of a limited number of medications • Performing arthroscopies or assisting in surgery • Prescription of a limited number of medications • Administering corticosteroid injections • Autonomous management simple fractures in ED • Autonomous management wound care i.e. suturing in ED 	<ul style="list-style-type: none"> • Assessment of patients direct from the Orthopaedic/ Neurosurgeon waiting list • Fast track access to medical Specialists • Direct list for surgery • Autonomous ESP physiotherapy practice in ED 	<p>POTENTIAL TRIAL</p> <ul style="list-style-type: none"> • Long Orthopaedic surgeons waiting lists (variable) • Evidence in literature of success of ESP initiatives in targeting patient's from Orthopaedic wait lists (reduce transfer to surgery rate, accuracy of physiotherapist's diagnosis, reduce waiting times, reduce medical burden) <p>POTENTIAL TRIAL</p> <ul style="list-style-type: none"> • Currently working in ED as primary practitioner, therefore only requires expansion of current role • Expected ED benefits as stated in the literature (LOS, waiting time, medical staff release),
Community based outpatients	<ul style="list-style-type: none"> • Ordering and interpreting imaging and diagnostics • Ordering of pathology tests (e.g. MSU, Vitamin D screening) • Independent Interpretation of imaging • Inject local anaesthetic as diagnostic tool 	<ul style="list-style-type: none"> • Prescription of a limited number of medications 	<ul style="list-style-type: none"> • Direct referral to medical specialists 	<p>FUTURE CONSIDERATION</p> <ul style="list-style-type: none"> • Difficulty identifying one specific ESP physiotherapy role or clinic • Lack of current Orthopaedic medical support in the Community setting

3.0 Evidence based recommendations for successful implementation

Elements that are vital to the success of ESP physiotherapy posts include medical support, clear role definition, and strategies to ensure rigorous establishment and evaluation of clinical competencies as part of a wider risk management plan.

Support: It was clear from descriptive studies of ESP practice (Dawson & Ghazi et al. 2004; Mulligan 2003) that the support of the medical team, in particular the consultant specialist, is an essential ingredient to the success of an ESP physiotherapy post. It is recommended that for maximum support, the medical team should be instrumental in the planning and development of ESP services, which breeds greater facilitation across disciplines (Dawson & Ghazi et al. 2004; Mulligan 2003).

Role definition: Clear role definition has been described as beneficial to all members of the health care team when professional extension is developed (Dawson & Ghazi 2004; Collins et al. 2000). Role creep without clarity may lead to misunderstandings, professional tension, confusion and limited protection regarding legal indemnity (Bethel 2005; Kersten et al. 2007).

Whilst clearly defining roles is viewed as beneficial, the method of doing so is worth consideration. Clear role definition via the provision of clinical pathways and protocols has been linked both positively and negatively to professional autonomy, which in turn is one of many determinants of job satisfaction (Dawson & Ghazi 2004; Atkins 2003; Collins et al. 2000). It appears that there is a fine line to be drawn in ensuring roles are well delineated, but that ESP practitioners feel that are still able to use their professional judgment skills in an autonomous fashion.

Clinical Competencies: Adequate practitioner training is an essential component of enabling ESP roles, along with ensuring sufficient competency of those practitioners in the extended roles that are to be performed. When surveyed, health professionals identified a formal in house approach to training would be most beneficial (Ellis, Kersten & Sibley 2005), this may be due to the current lack of courses that engender and encompass competences that meet the clinical demands of delegated medical tasks (Hogg & Holmes 2000). A systems based approach should ensure that clear competencies are set, there are entrenched evaluation methods and that both initial and ongoing training requirements are identified and met.

Risk management: The potential vulnerability of ESP physiotherapists to litigation, as a drawback of and barrier to emerging roles, was commonly expressed by the ESP practitioners themselves, their supervising consultants and medical colleagues (Dawson & Ghazi et al 2004; Atkins 2003; Ellis & Kersten 2002; Mulligan 2003). The need for proactive risk management and suitable planning to ensure legal coverage, including relevant legislation and policies to acknowledge any novel extended roles for which there were previously no provisions for physiotherapists to perform, is emphasised (Kersten et al. 2007; Atkins 2003; Mulligan 2003). In order to ensure risks are minimized, a systems-based approach is recommended, with good legal coverage, suitable practitioner competencies and training, strategies to ensure patients rights are protected and clinical safety nets employed as appropriate (Kersten et al. 2007; Atkins 2003; Mulligan 2003).

Elements that may facilitate the continuation of a successful ESP physiotherapy post include maintaining professional inclusion, satisfying ongoing training needs and trans-disciplinary models of working

Professional Inclusion: It has been recommended that maintaining an identity, within their own profession, such as by continuing to perform some 'core' roles, should go some way towards alleviating these issues and retaining knowledge within the profession (Ellis, Kersten & Sibley 2005).

Ongoing training: The workplace should provide the necessary onsite additional training, clinical practice supervision, support, and certification where appropriate to ensure that the practitioner can undertake this role competently and safely (APA 2004). However there is also a need to provide ongoing clinical education programs with financial and systems based support (i.e. protected and/or paid study leave). The evidence has shown that these systems were not readily in place in the majority of UK posts, however they are considered vital for both the sustainability of innovative services and the career pathways of physiotherapists moving into new and extended positions.

Trans-disciplinary working: The impact of task transfer upon all trainee health professionals has been raised, with the fear that non-physiotherapy trainees will lack exposure to basic conditions that they previously were exposed to, and thus will be limited in developing of their own skill base (Peck, Kennedy & McKirdy 2001). Studies have identified different possible ways to overcome this, including using a rotating shift system to allow junior medical staff exposure to soft tissue injury in the emergency department, or utilising the skills of the extended scope physiotherapy practitioners for trans-disciplinary mentoring and training to ensure the training needs of junior medical staff are met (Peck, Kennedy & McKirdy 2001).

Further factors that may prove to be barriers, if not accounted for in the service development plan, are practical administrative requirements, career implications, collateral impact and the influence of patients' rights and expectations.

Practical organisational requirements: In common with the development of any given service or role, it was identified that there needs to be consideration of the practicalities involved with running that service; including the necessary physical space required for the service, staffing, administrative support and financial resources available (Collins et al. 2000).

Collateral impact: Linked somewhat with 'role definition' is the impact of the extension of physiotherapy roles on other health professions (both inter and intra discipline). The issue of stress was raised by some within the medical profession, who felt that task transfer across disciplines had the potential for more rapid burn out on both sides of the professional fence (Collins et al. 2000).

Patient related issues. Whilst recognising that patient satisfaction is often very high in response to ESP physiotherapy initiatives, developers of such initiatives should be cognisant of possible negative perceptions by patients who would otherwise expect to be consulted by a doctor. The need to promote new practice designs to the community has been identified as a significant enabler to such initiatives.

Implementation

Evidence from the literature and gaps in coverage

What frameworks or implementation plans need to be in place to start a trial process? *(This may include consideration of legislation/regulation components, support structures/models and/or educational components).*

Legislative and regulatory components specific to the ACT will need to be addressed before any trial commences.

- **What measurable key performance indicators have been commonly used in previous trials/research that demonstrate that the role is safe and effective?**

There are few detailed evaluations, and the majority detail more service-based outcomes, such as patient waiting time, satisfaction, rather than health outcomes or costs. It is essential that the KPI's are chosen with forethought to address both service requirements (i.e. waiting times), true patient related outcomes and the resource implications/costing and productivity gains of innovative healthcare provision.

- **What credentialing, educational requirements, training programs and supervision needs are required to implement such a trial?** *(This may include curricula/training/education methods; clinical placements and educator preparation; ESP physiotherapist competencies; governance; value of the ESP physiotherapists role in the patient journey and models of care approach; ESP physiotherapists practice, effectiveness and relationships with other team members e.g. radiologists, orthopaedic surgeons)*

There is little in the literature about training that would immediately guide ACT project planning. There is no clear indication about preferred methods of ESP training, opportunities to tap into existing curricula from other courses/programs, or the need to develop new curricula.

- **Are there any indications as to the staffing requirements of an ESP trial?** *(i.e. is a fulltime project officer and research officer required?)*

The literature does not provide any recommendations regarding staffing requirements of any ESP physiotherapy trial. ESP physiotherapy roles have often been 'tacked on' as part of a multi-disciplinary team, and not as a dedicated initiative. Thus this would require a different research approach to ensure clear and appropriate directives relevant to the ACT.

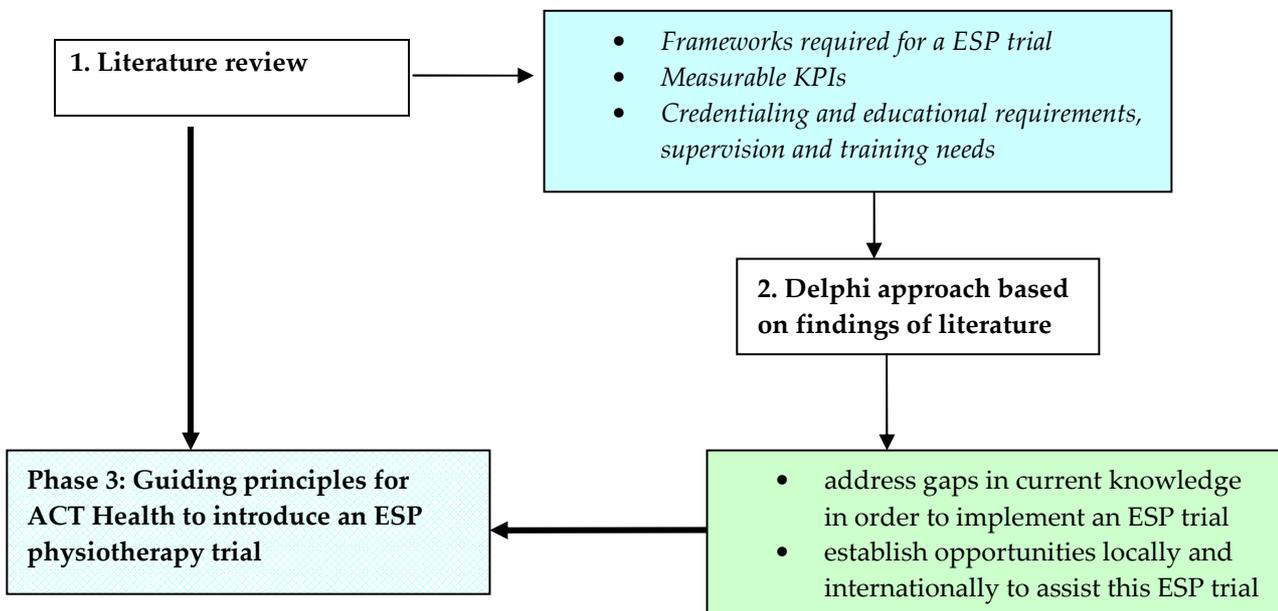
- **What processes need to be in place to ensure communication to a broader audience during the implementation phase?** *(This includes planning phases, progress reports and mechanisms to receive feedback)*

While the processes are discussed in the literature, there is little specific detail with which to inform ACT planning.

RECOMMENDATIONS

There are few reports that actually describe the specific ‘nuts and bolts’ type information about how to establish an ESP physiotherapy initiative. A practice leader in the field has been identified as the Victorian Better Skills Best Care program, and they have been clear about their desire to collaborate and share their knowledge with other centres wishing to explore innovative health care solutions. CAHE believe a Delphi Consensus study is a more time, resource and cost efficient method of establishing a broad view, tapping into personal experiences and perspectives and ensure that all relevant and informed individuals, both internationally and nationally will be invited to contribute. This group would initially be identified by the ACT Workforce Planning group, CAHE researchers, and from authors of the relevant literature. These individuals would be invited to participate for their practical information, experiences, and views on ESP that could add to the literature review findings to guide a pilot phase.

The following chart is the proposed strategy for moving into a trial phase of an extended scope physiotherapy initiative in ACT Health and DHCS:



SUMMARY

There is support in the literature and from the physiotherapists locally for five ESP physiotherapy roles across ACT Health and DHCS. It is proposed that these initiatives may reduce patient waiting times and medical burden, and improved patient satisfaction and clinical outcomes. It is suggested that they may also have positive impact on workforce issues and productivity.



dhcs|ACT

ALLIED HEALTH

8.0 Appendix

June 2008

Obstacles to extended scope physiotherapy in the ACT

This document provides a summary of findings relevant to the ACT within the Minter Ellison report, September 2005.

Legal obstacles to physiotherapists prescribing medication:

National

- Each state and territory has legislation that regulates possession, use, supply and prescription of certain substances. The National Drugs and Poisons Schedule Committee has developed the Standard for the Uniform Scheduling of Drugs and Poisons. All states and territories have adopted this standard with some minor modifications. Drugs in Schedule 4, 8 and 9 require prescriptions.
Schedule 4 – most drugs prescribed by doctors
Schedule 8 – drugs of dependence
Schedule 9 – drugs of abuse, usually prohibited by law

ACT

- There are no explicit legal obstacles preventing physiotherapists from prescribing medication. However, it is implicit in the Poisons and Drugs Act 1978 (ACT) that prescribing is carried out by doctors
- Further restrictions apply for drugs of dependence and number of restricted substances.

Financial obstacles to physiotherapists prescribing medication:

National

- The Pharmaceutical Benefits Scheme does not make allowance for the prescription of medication by physiotherapists.
- Exception is provided for 'participating dental practitioners' to write a prescription for the supply of a pharmaceutical benefit.

Legal obstacles to physiotherapists injecting medication:

National

- No specific legislation refers to specifically injecting medication. Current recommendations therefore fit under the definition of administering substances.
- An obstacle to administering medication is whether or not a physiotherapist is lawfully able to have the substances in his or her possession.

ACT

- No specific legislative obstacles on administration of drugs except for restrictions on administration of anabolic steroids

Legal obstacles to physiotherapists referring patients for diagnostic procedures:

There are no legal obstacles to physiotherapists referring patients for diagnostic procedures in the ACT.

Financial obstacles to physiotherapists referring patients for diagnostic procedures:

National

- The key financial obstacle to physiotherapists referring patients for diagnostic procedures is that, in many circumstances, Medicare benefits are not payable unless the patient is referred by a medical practitioner.
- Where medical expenses are incurred in respect of professional services, medical benefits are payable in accordance with the *Health Insurance Act 1973* (Cth). A diagnostic imaging procedure is defined in section 3 as ‘a procedure for the production of images (eg. XR, CT, US, MRI, and nuclear) for use in the rendering of diagnostic imaging services’.
- Section 4AA of the *Health Insurance Act 1973*(Cth) provides a table of diagnostic imaging services categorised into ‘NR-type’ diagnostic services or ‘R-type’ diagnostic services. ‘NR-type’ items do not require a written request, and therefore Medicare benefits are payable regardless of the type of referral provided. ‘R-type’ items require a written request from a specified health practitioner.
- Section 16B(1) of the *Health Insurance Act 1973*(Cth) stipulates that a Medicare benefit is only payable for ‘R-type’ items if a written request is provided by a medical practitioner, or in certain circumstances by a dental practitioner, physiotherapist, chiropractor, podiatrist or osteopath.
- Under regulation 11 of the *Health Insurance Regulations 1975*(Cth), Medicare benefits may be provided when referral is provided by a physiotherapist for MBS items 57712, 57715, 58100-58155 (radiographic examination of the hip joint, pelvic girdle and spine). For all other ‘R-type’ diagnostic services, patients will not receive Medicare benefits if referred by a physiotherapist.

Legal obstacles to physiotherapists performing surgery:

ACT

- Under the Health Professions Act 2004 (ACT), the practice of medicine is restricted to persons who have recognised medical qualifications and must have successfully completed a period of supervised training (Item 2.2). The practice of medicine includes performing operations, invasive procedures or other therapy (Item 2.1). Physiotherapists do not meet these requirements and are therefore unable to lawfully perform surgery.