



ACI NSW Agency
for Clinical
Innovation



*Emergency
Care Institute*
NEW SOUTH WALES

Impact and activities of the Emergency Physiotherapist in NSW Emergency Departments



ECI Research Symposium 2021

Lilian Wong

Hatem Alkhouri

Katherine Maka

Sally McCarthy

Anne Walton

Laura George

Background

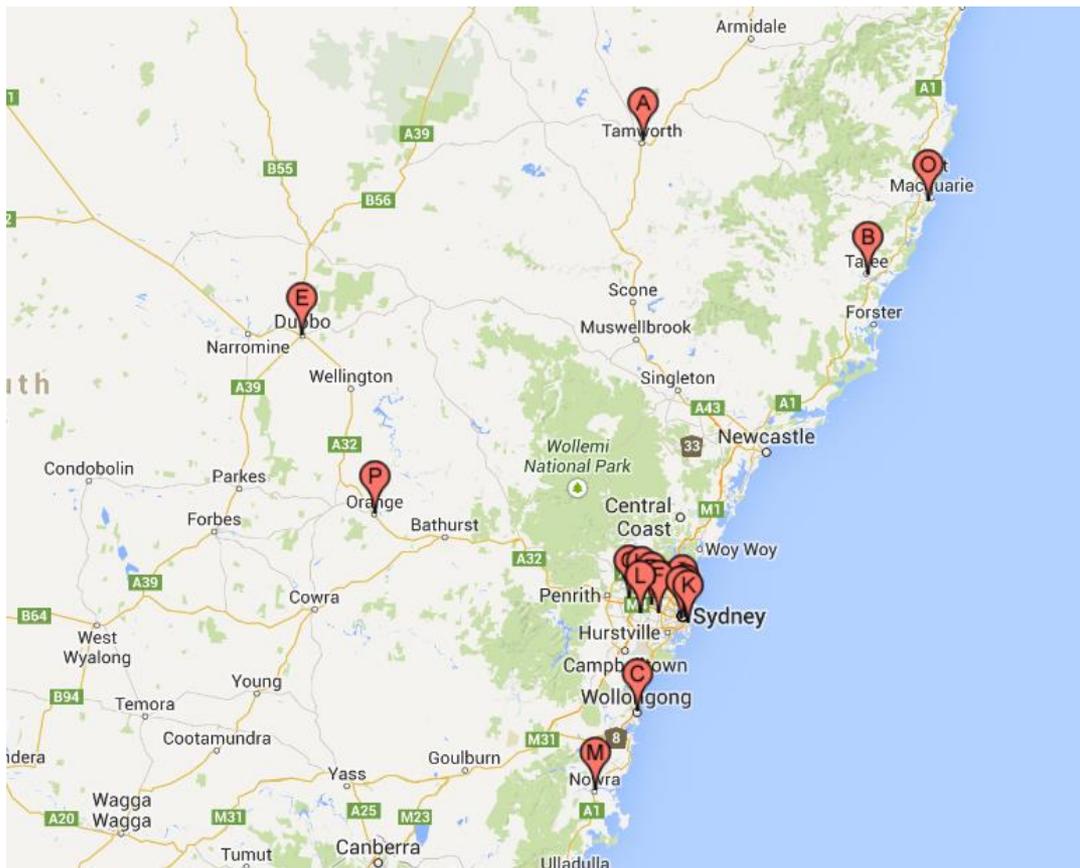
- Patients with musculoskeletal (MSK) injuries are common presentations to EDs ¹
- EDs → continuous innovation to manage increasing demand more effectively
- Emergence of primary contact care (PCC) physiotherapy role in ED
- PCC able to review patients with MSK injuries directly after triage
- Some evidence supporting physiotherapists role in ED
 - Based on data from a single site or from overseas ^{2, 3}

1. Dinh, MM et al., EMA, 2016

2. McClellan CM, Cramp F, Powell J, et al. *BMJ* 2012

3. Guengerich M, Brock K, et al. *Int J Therapy & Rehab* 2013

NSW: EDs with Physiotherapy Service



| FirstNet users | | LHD |
|----------------|--------------------------|----------------------|
| 1 | Westmead Hospital*** | Western Sydney |
| 2 | Auburn Hospital | |
| 3 | Blacktown Hospital | |
| 4 | Mount Druitt Hospital | |
| 5 | Bankstown Hospital | South Western Sydney |
| 6 | Campbelltown Hospital | |
| 7 | Fairfield Hospital | |
| 8 | Liverpool Hospital | Sydney |
| 9 | RPA | |
| 10 | Concord Hospital | Western NSW |
| 11 | Dubbo Hospital | |
| 12 | Orange Base Hospital | Illawarra Shoalhaven |
| 13 | Wollongong Hospital | |
| 14 | Shoalhaven Hospital | Mid North Coast |
| 15 | Port Macquarie Hospital | |
| 16 | Prince Of Wales Hospital | South Eastern Sydney |
| 17 | RNSH | Northern Sydney |

| Non-FirstNet users | | LHD |
|--------------------|-------------------|--|
| 18 | Tamworth Hospital | Hunter New England/ University of Newcastle |
| 19 | Taree Hospital | University of Newcastle |
| 20 | SVH | SVH Network |

Project aims

- To investigate the impact of the PCC on Emergency Department (ED) care for patients with MSK injuries in NSW EDs
 - Waiting time
 - Length of stay
 - Patient satisfaction
 - ED clinical staff views
- To identify the activities of Emergency Physiotherapist through primary and secondary models of care in NSW EDs

Findings published in EMA and AUJEC

G Model
AUJEC-530: No. of Pages 7

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Identifying the activities of physiotherapy practitioners through primary and secondary models of care provided in New South Wales emergency departments

Katherine Maka^a, Hatem Alkhouri^{b,c,*}, Lilian Wong^d, Laura George^b, Anne Walton^b, Sally McCarthy^{b,c,e}

^a Physiotherapy Department, Westmead Hospital, Westmead, NSW, Australia
^b Emergency Care Institute, Agency for Clinical Innovation, Sydney, NSW, Australia
^c Faculty of Medicine, University of New South Wales, NSW, Australia
^d Physiotherapy Department, Liverpool Hospital, Liverpool, NSW, Australia
^e Emergency Department, Prince of Wales Hospital, Randwick, Australia

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ABSTRACT

Background: Following the introduction of the emergency department (ED) primary contact physiotherapy role, emergency physiotherapy models of care have evolved and are increasingly being adopted in the Australian EDs. This has occurred due to growing ED patient demand and a need for greater workforce flexibility. Since introduction, there has been limited evaluation of the scope of work physiotherapists are providing in Australian EDs.

Objectives: To identify the activities of ED physiotherapists provided through different models of care in NSW.

Methods: Prospective observation study in 19 participating EDs conducted over 6 months between September 2014 and April 2015.

Results: The study identified different models of care across participating hospitals where physiotherapists worked independently or in conjunction with a team through a referral service. The individual's scope of work was determined by organisational policy, culture, individual competence, knowledge and skills, and varied significantly between sites.

Conclusions: These findings could guide both ED work flow and the development of multidisciplinary workforce structures to improve the utilisation of the physiotherapy service in EDs. This will allow for better service levels in hospitals, better access for patients and better use of resources.

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ORIGINAL RESEARCH

Impact of the primary contact physiotherapy practitioner role on emergency department care for patients with musculoskeletal injuries in New South Wales

Hatem ALKHOURI^{1,2}, Katherine MAKHA³, Lilian WONG⁴ and Sally MCCARTHY^{1,2}

¹Emergency Care Institute, Agency for Clinical Innovation, Sydney, New South Wales, Australia, ²Faculty of Medicine, The University of New South Wales, Sydney, New South Wales, Australia, ³Physiotherapy Department, Westmead Hospital, Westmead, New South Wales, Australia, and ⁴Physiotherapy Department, Liverpool Hospital, Liverpool, New South Wales, Australia

Abstract

Objectives: To determine the impact of the emergency physiotherapy service provided through different models of care on service quality indicators, patient flow, staff and patient satisfaction.

Method: A mixed method prospective observation study was conducted between September 2014 and April 2015 in 19 EDs where a physiotherapy service is provided.

Results: Patients seen by the primary contact physiotherapist (PCP) were associated with a significant reduction in ED length of stay by 108 min, wait time to treatment by 10 min ($n = 4$ EDs) and time-to-first analgesia by 18 min ($n = 19$ EDs) compared to those seen through usual care processes. Patients who received care by a doctor first and then physiotherapist (secondary contact model) had a prolonged length of stay compared to other care pathways. High levels of satisfaction with

the PCP role were expressed by ED staff ($n = 17$ EDs) and patients ($n = 19$ EDs). More than 95% of patients who received care by PCP were satisfied with the management of their condition, understood the advice and discharge information provided and had enough time to ask questions.

Conclusion: ED implementation of the PCP model may improve patient flow and efficiency of clinical skill utilisation in a complex, high demand workplace.

Key words: emergency care, models of care, musculoskeletal injuries, physiotherapy service.

Introduction

The number of patients presenting to EDs in Australia has been increasing at a rate higher than population growth.¹ Therefore, EDs have a focus on continuous innovation in

Key findings

- The PCP role provides high-quality MSK patient outcomes, improves patient flow in ED and is perceived positively by ED clinical staff and patients.
- The evidence provided in this study suggests that the PCP should form part of the contemporary ED clinical workforce across all EDs.

the provision of care to manage increasing service demand. With up to 28% of all ED presentations in New South Wales (NSW) EDs because of musculoskeletal (MSK) injury,² and nearly half of these being isolated injuries, one approach to manage this demand has been the introduction of the primary contact physiotherapist (PCP) model of care (MoC).³ Undertaking this role, the PCP assesses, diagnoses and manages patients with MSK injuries which are typically lower acuity triage categories. This includes requesting and interpreting diagnostic imaging, managing fractures and applying a range of therapeutic interventions, without routine involvement of medical practitioners.⁴

To date, the literature evaluating PCP MoC in Australia^{1,2,5} and more broadly⁶ has consistently reported positive participant satisfaction with evidence that PCP MoC can reduce ED patient waiting time (WT) and length of stay (LoS). However, most

Correspondence: Dr Hatem Alkhouri, Emergency Care Institute, Agency for Clinical Innovation, P.O. Box 699, Chatswood, NSW 2057, Australia. Email: hatem.alkhouri@health.nsw.gov.au

Hatem Alkhouri, BAppSci, MSc, PhD, ECI Research Fellow; Katherine Maka, BAppSci (Phy), Dip, GradCert, MAPA, Former National Chair Emergency Department Group APA, Team Leader, Senior Physiotherapist (Musculoskeletal); Lilian Wong, BAppSci (Phy) (Hons), Senior Emergency Department Physiotherapist; Sally McCarthy, MBBS, FACEM, MBA, Former Clinical Director, Senior Emergency Physician, Conjoint Associate Professor.

This study was presented at the ACEM Annual Scientific Meeting, Westmead Hospital Research Week, Emergency Care Institute Research Symposium and Australian Physiotherapy Association Annual Scientific Meeting.

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Methods

■ 19 EDs in NSW participated in study

Patient Satisfaction Survey -Emergency Department

A review of the participant's satisfaction with emergency care and discharge advice given. This survey will only take approximately 5 minutes to complete. There are no right or wrong answers and the information you provide is confidential and will not affect your care.

Please advise which best reflects your feelings.

1. Care Provider: (tick one option only, if you are not clear please ask care provider)

My condition was assessed and managed by a doctor only,
 My condition was assessed and managed by a nurse practitioner/advance clinical nurse only,
 My condition was assessed and managed by a physiotherapist, or
 I was assessed first by the doctor and then managed by a physiotherapist

2. I was given advice about: (tick more than one if applicable)

Medication
 What exercise I should be doing to improve my condition
 How to manage my condition at home (i.e. using ice, elevation, rest, crutches)
 What to do if there was a change in my condition (i.e. return to emergency or see my GP)
 Whom I should see to follow up on my condition after being discharged

| | Strongly disagree | Disagree | Uncertain | Agree | Strongly agree |
|---|---|--------------------------|--------------------------|--------------------------|--------------------------|
| 3. I felt I received good advice and information about my condition | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. I was given enough time to ask questions and discuss my injury | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. I felt confident that the member of staff could manage my condition appropriately | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. I have understood the discharge information given to me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. The member of staff explained the results of their assessment | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Overall I was satisfied with the treatment I received | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. I felt my management occurred in a timely manner | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Please rate your overall level of understanding of the discharge information given to you | <input type="checkbox"/> Totally understood <input type="checkbox"/> Understood <input type="checkbox"/> Uncertain <input type="checkbox"/> Somewhat understood <input type="checkbox"/> Did not understand | | | | |

Please write any additional comment in the box below:

Patient Satisfaction Survey, Version 1.1 dated 30th March 2014

Age:43 years Sex:Male Inpatient [15/06/2021 14:33 - ...Loc:WE Emergency Dept
 Allergies/ADR: No Known Me... Resus Status:... Wt: None Alerts:None Provide: (Speci...)

Current Modify

Physio Primary
 Physio Secondary

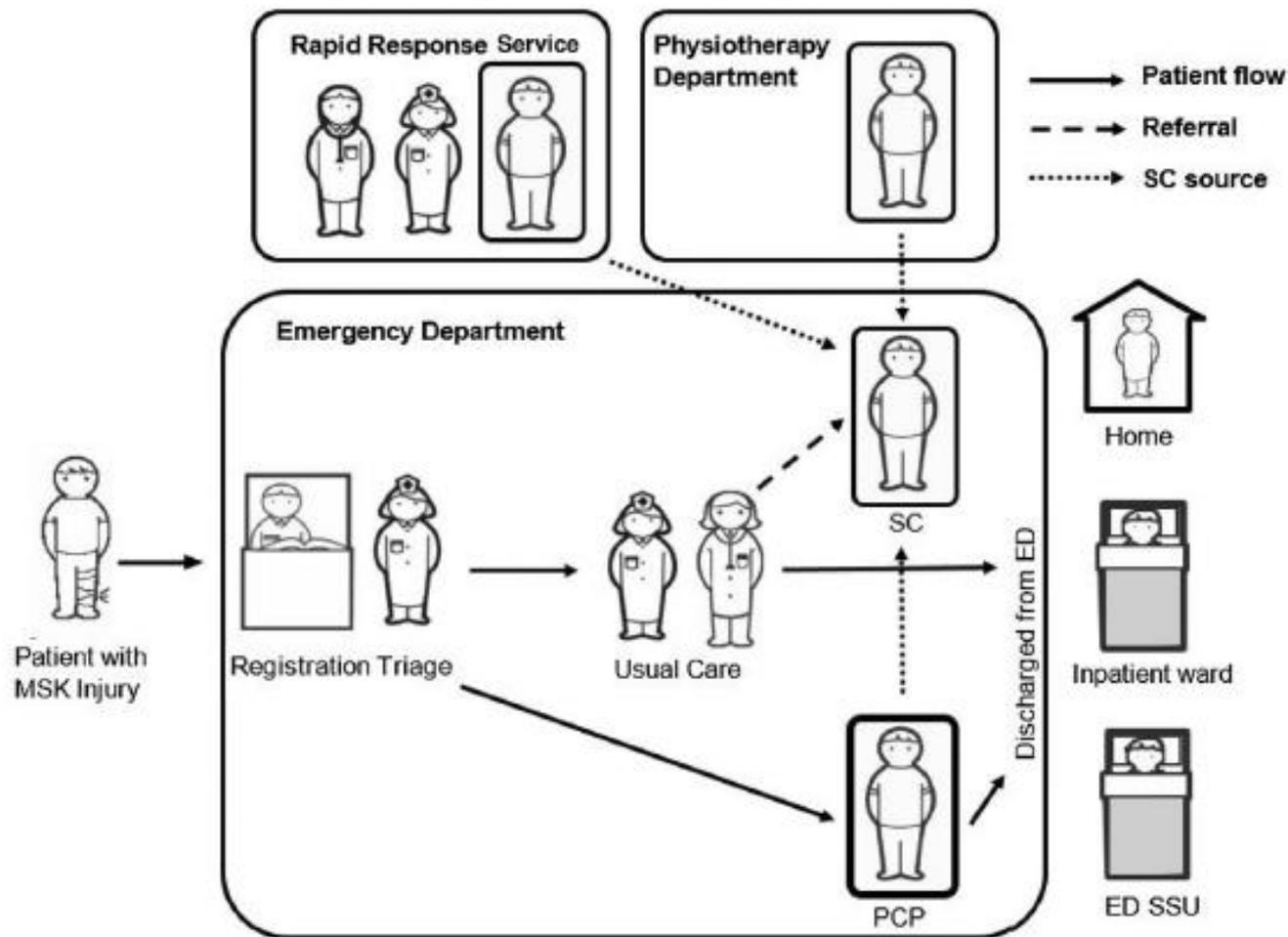
Med Rec in Storage MISC Event Physio Primary
 Med Rec Mult Volumes NI By Mouth Physio Secondary
 Med Rec New File NP Exam Pre Arrival Pt
 Med Rec Requested Nurse Exam Pre Arrival Pt Icon
 Med Rec Returned O/S Visitor Private Patient Registration
 Med Rec Sheets Only One to One Procedures Re-Trge
 Med Rec Sheets Rtn Orderly Delayed Protocol Commenced SAFE-T
 Medications Orderly Request R/V Mech Restraint Scheduled Patient
 MH / PECC Consult Pandemic RAID Clinician SMO Review
 MH/PECC Request Physio Prac Exam Rapid Assessment SRI Depart Action Patient Care

| Date | ED Physiotherapy Project | | Name of Physiotherapist | | | | | | |
|---|--|---|-------------------------|--|--|--|--|--|--|
| Age | To be completed for all patients seen by EPP | | | | | | | | |
| Please tick where applicable | | | | | | | | | |
| 1 Contact <input type="checkbox"/> Primary <input type="checkbox"/> Secondary | | 2 Location <input type="checkbox"/> Acute <input type="checkbox"/> ESSU/EMU <input type="checkbox"/> Early Treatment Zone <input type="checkbox"/> Resus/Trauma <input type="checkbox"/> UCC/ Fast Track <input type="checkbox"/> HOPE <input type="checkbox"/> Other | | 3 Triage Cat. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 | 4 Complaints/Diagnosis <input type="checkbox"/> Musculoskeletal <input type="checkbox"/> Respiratory <input type="checkbox"/> Mobility Assessment <input type="checkbox"/> Fracture <input type="checkbox"/> Other | | 5 Body Parts <input type="checkbox"/> Ankle <input type="checkbox"/> Cervical Spine <input type="checkbox"/> Lumbar Spine <input type="checkbox"/> Thoracic Spine <input type="checkbox"/> Elbow <input type="checkbox"/> Femur <input type="checkbox"/> Foot/Toes <input type="checkbox"/> Forearm <input type="checkbox"/> Hand/Fingers <input type="checkbox"/> Hip/Pelvis <input type="checkbox"/> Humerus <input type="checkbox"/> Knee <input type="checkbox"/> Multiple Sites <input type="checkbox"/> Ribs <input type="checkbox"/> Shoulder <input type="checkbox"/> Tibia <input type="checkbox"/> Wrist <input type="checkbox"/> Other | | |
| 6 Analgesia Key <input type="checkbox"/> Nil <input type="checkbox"/> Paracetamol <input type="checkbox"/> NSAIDS <input type="checkbox"/> Panadeine Forte <input type="checkbox"/> Endone <input type="checkbox"/> Morphine <input type="checkbox"/> Other | | 9 X-ray Ordered <input type="checkbox"/> Nil <input type="checkbox"/> Nurse <input type="checkbox"/> Doctor <input type="checkbox"/> Physiotherapist | | 10 Physio Rx <input type="checkbox"/> Education <input type="checkbox"/> Taping <input type="checkbox"/> Mobility <input type="checkbox"/> Home Exercise Program <input type="checkbox"/> Plaster <input type="checkbox"/> Sling <input type="checkbox"/> Walking aid <input type="checkbox"/> Splint/Bracing <input type="checkbox"/> Manual therapy <input type="checkbox"/> Respiratory Intervention <input type="checkbox"/> Other | | 11 Destination <input type="checkbox"/> Admit <input type="checkbox"/> Transfer <input type="checkbox"/> Discharge <input type="checkbox"/> Other | | 12 Referral <input type="checkbox"/> GP <input type="checkbox"/> Specialist Clinic <input type="checkbox"/> Outpatient Physio <input type="checkbox"/> Day hospital <input type="checkbox"/> Other | |
| 7 Analgesia initiated by <input type="checkbox"/> Prior to presentation <input type="checkbox"/> Nurse <input type="checkbox"/> Doctor <input type="checkbox"/> Physiotherapist | | 8 Time of 1st Analgesia <input type="checkbox"/> Time patient triaged recorded in FirstNet <input type="checkbox"/> Time of analgesia administration recorded | | | 13 Comments <div style="border: 1px solid black; height: 20px; width: 100%;"></div> | | | | |

- PCC significantly reduced wait times and total length of stay
- Positive feedback received by ED clinicians with 95% agree or strongly agree the ED physiotherapist will make the ED team more effective
- 96.8% patients report being either satisfied or very satisfied with care provided by the ED Physiotherapist

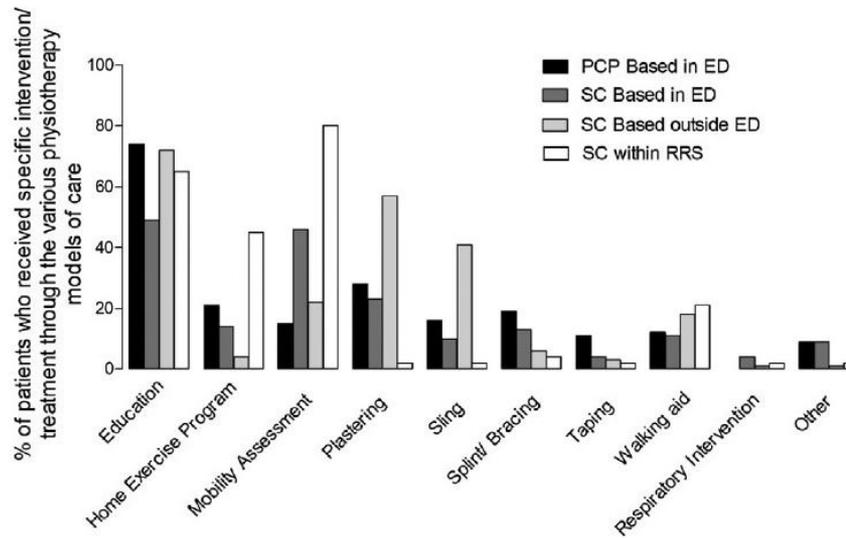
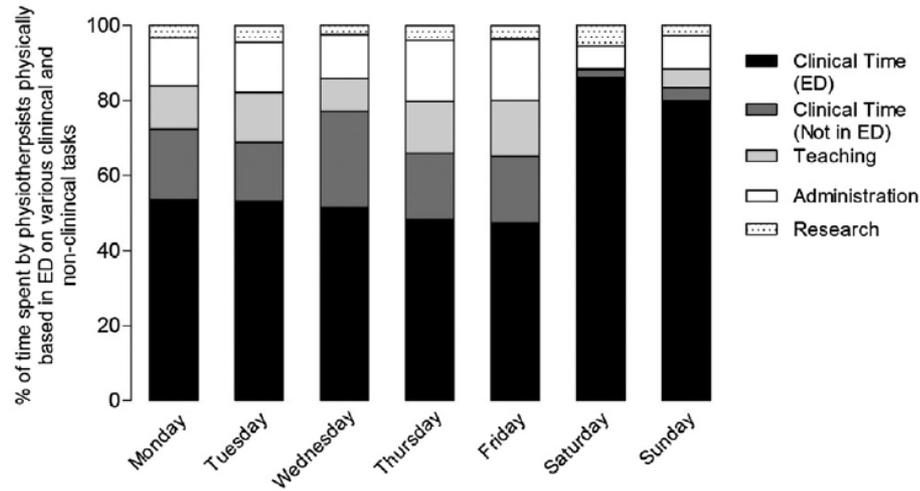
Results –

Identifying the activities of physiotherapy practitioners through primary and secondary models of care provided in NSW Emergency Departments



Results –

Identifying the activities of physiotherapy practitioners through primary and secondary models of care provided in NSW Emergency Departments



Discussion

- First prospective multi-site study which evaluated the impact of the ED physiotherapy service provided through different models of care in NSW EDs
- Findings suggest that ED physiotherapist should form part of the contemporary ED clinical workforce
- There remains variation in ED physiotherapist scope of work across different sites
- Further work by peak bodies to support and evolve duties of the ED physiotherapist

Acknowledgements

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- We would like to thank all physiotherapists and site investigators for the 19 EDs