ISRCTN77150219 https://doi.org/10.1186/ISRCTN77150219

Can the work of paramedics be re-designed to improve pain and discomfort?

Submission date
03/11/2021

Recruitment status
No longer recruiting

Registration date
21/11/2021

Overall study status
Completed

Last Edited
08/10/2025

Condition category
Musculoskeletal Diseases

[X] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol
Background and study aims
People who work in ambulance services commonly experience discomfort and pain in their bodies. This is a problem for the people experiencing it, their co-workers, the patients they treat and overall, affects the way the health system works. Paramedics do vital work in our community. The aims of this study are to find out:
1. What hazards paramedics report that they are exposed to at work and what types of hazards are most common
2. What level of discomfort do paramedics experience related to their work and in what body areas does this occur
3. Whether a risk management toolkit applied at the station level has an impact on the reported exposure to hazards and/or discomfort
4. What is involved in implementing the risk management toolkit in an ambulance station

Who can participate?
Registered paramedics who are employed in an ambulance service in one metropolitan region

What does the study involve?
Paramedics will complete a short survey on their iPad and then again 12 months later. Some of the ambulance stations will be randomly allocated to use the survey results to implement the risk management toolkit at their station in between surveys.

What are the possible benefits and risks of participating?
If using the toolkit improves the situation for paramedics, they will feel less discomfort and this may directly benefit them and indirectly benefit others. Risks to paramedics could include becoming more aware of their discomfort or other problems at work through the survey.

Where is the study run from?
Queensland Ambulance Service (Australia)

When is the study starting and how long is it expected to run for?
February 2022 to September 2024

Who is funding the study?
1. La Trobe University (Australia)
2. Queensland Ambulance Service (Australia)

Who is the main contact?
Karen Davies, Student Investigator
K.Davies@latrobe.edu.au

Contact information

Type(s)
Scientific

Contact name
Dr Jodi Oakman

ORCID ID
https://orcid.org/0000-0002-0484-8442

Contact details
La Trobe University
Melbourne
Australia
3083
+61 (0)3 9479 3235
J.Oakman@latrobe.edu.au

Type(s)
Public

Contact name
Ms Karen Davies

Contact details
125 Park Rd
Kedron
Australia
4031
+61 (0)7 3635 3568
K.Davies@latrobe.edu.au

Additional identifiers

Protocol serial number
HEC21166

Study information

Scientific Title

Can the musculoskeletal health of paramedics be improved through re-design of the work?

Study objectives
The implementation of A Participative Hazard Identification and Risk Management (APHIRM) toolkit will reduce the perceived exposure to work-related hazards and the self-reported discomfort of paramedics.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 28/06/2021, La Trobe University Human Ethics Committee (Plenty Road, Bundoora, Melbourne, VIC, 3086, Australia; +61 (0)3 9479 1144; humanethics@latrobe.edu.au), ref: HEC211166

Study design
Cluster randomized controlled trial with waitlist controls

Primary study design
Interventional

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Work-related musculoskeletal disorders in paramedics

Interventions
The APHIRM toolkit intervention will be undertaken in one region within a large ambulance service in Australia. The Region will be randomly selected from a pool of two matched regions. Within the intervention region, workgroups containing 20 or more paramedics will be formed (approximately 20 groups). The groups will be randomised into three clusters, and the clusters will then be randomised to three consecutive time periods.

Workgroups included in the study will be allocated a number. An independent researcher will receive these numbers and assign them using a random number allocator in MS Excel as either a control or intervention group and then randomise alternately from each of these groups, into one of the three time periods.

The survey will be administered to all eligible paramedics in all groups in one cluster. Following the closing date, the workgroups in the cluster will be randomised to the intervention or the waitlist control group. The intervention (APHIRM tool kit - risk management team) will be implemented over a 12-month period in the cluster in the intervention workgroups. At 12 months, the survey will be repeated with all workgroups in the cluster. Following the conclusion of the follow-up survey, control wait list workgroups may be offered the intervention as business as usual. The process will be repeated for clusters for time periods 2 and 3 on a rolling schedule over approximately 4-6 months for initiation of all risk management teams.

Intervention Type
Other

Primary outcome(s)
Level of self-rated pain and discomfort in body areas, measured using a survey administered at baseline and 12 months

Key secondary outcome(s))
1. Level of self-rated exposure to work-related physical hazards, measured using a survey administered at baseline and 12 months
2. Level of self-rated exposure to work-related psychosocial hazards, measured using a survey administered at baseline and 12 months

Completion date
30/09/2024

Eligibility

Key inclusion criteria
Any employee of the intervention region within the ambulance service, at the time of the surveys, who is a Registered Paramedic

Participant type(s)
Health professional

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Key exclusion criteria
Paramedics who are employed in the Bicycle Response Team; Surge Response or Incident Management Room

Date of first enrolment
01/04/2022

Date of final enrolment
30/06/2023

Locations

Countries of recruitment
Australia

Study participating centre

Queensland Ambulance Service
125 Park Road
Kedron
Australia
4012

Sponsor information

Organisation
La Trobe University

ROR
https://ror.org/01rxfrp27

Funder(s)

Funder type
University/education

Funder Name
La Trobe University

Alternative Name(s)
La Trobe University, Melbourne Victoria Australia, La Trobe, latrobeuni, latrobe, La Trobe University, Australia, La Trobe University, Victoria Australia, La Trobe University, [LTU] Melbourne, Victoria, Universitas La Trobeana, LTU

Funding Body Type
Government organisation

Funding Body Subtype
Universities (academic only)

Location
Australia

Funder Name
Queensland Ambulance Service

Alternative Name(s)

State of Queensland – Queensland Ambulance Service, Queensland Ambulance, The Queensland Ambulance Service, Queensland Ambulance Service Transport Brigades, City Ambulance Transport Brigade, QAS

Funding Body Type
Government organisation

Funding Body Subtype
Local government

Location
Australia

Results and Publications

Individual participant data (IPD) sharing plan
Participant-level data will not be available, as ethics approval to share the data has not been given. Specific questions about this can be directed to J.Oakman@latrobe.edu.au if needed.

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article		08/09/2023	11/09/2023	Yes	No