ISRCTN41786994 https://doi.org/10.1186/ISRCTN41786994

Effect of a 6-week functional preconditioning program on reducing injuries in Abu Dhabi police recruits

Submission date
10/04/2026

Recruitment status
No longer recruiting

Registration date
13/04/2026

Overall study status
Completed

Last Edited
28/07/2026

Condition category
Injury, Occupational Diseases, Poisoning

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Principal investigator, Scientific, Public

Contact name
Mr Hamad Alkaabi

Contact details
Villa 9, Al Qata Street
Abu Dhabi
United Arab Emirates
23464
+971 (0)502334313
hmhalkaabi@adpolice.gov.ae

Additional identifiers

Study information

Scientific Title
The effectiveness of a 6-week functional preconditioning program on reducing musculoskeletal injuries, days lost from training, and attrition among Abu Dhabi police recruits: A randomized controlled trial

Study objectives

This study examined the effects of functional training on musculoskeletal (MSK) injuries, days lost from training, and attrition rate among Abu Dhabi police recruits.

Ethics approval required
Ethics approval required

Ethics approval(s)
1. Approved 02/08/2021, Loma Linda University Health IRB (Office of Research Affairs – IRB Nichol Hall, Room 2042 24951 Circle Drive, Loma Linda, 92350, United States of America; +1 (909) 558-4531; irbchair@llu.edu), ref: IRB# 5210303

2. Approved 26/05/2021, Abu Dhabi Health Research and Technology Ethics Committee (Head Office – Department of Health Abu Dhabi Building 35, Kanadel Street Al Rawda, Abu Dhabi, 9712, United Arab Emirates; +971 (0)24193516; medical.research@doh.gov.ae), ref: DOH/CVDC /2021/736

Primary study design
Interventional

Allocation
Randomized controlled trial

Masking
Blinded (masking used)

Control
Active

Assignment
Parallel

Purpose
Prevention

Study type(s)

Health condition(s) or problem(s) studied
Musculoskeletal injuries among tactical population (police recruits), including prevention of training-related musculoskeletal disorders

Interventions
Participants were allocated using simple randomisation with a computer-generated random number sequence. Allocation was performed by an independent individual from the Abu Dhabi Police recruitment department and was concealed using sealed opaque envelopes prior to group assignment.

Participants were randomly assigned to either an experimental or control group. The experimental group underwent a 6-week structured preconditioning training (PCT) programme in addition to standard preparation, consisting of high-intensity functional exercises targeting strength, flexibility, endurance, neuromuscular control, and power. The programme was delivered in progressive phases, including activation, endurance and strength, and strength and

power, with training sessions conducted four times per week under supervision, and load progression guided by the Rating of Perceived Exertion (RPE) scale. In contrast, the control group followed the standard recruitment procedure of Abu Dhabi Police, which involved no additional training during the same 6-week period prior to entering basic military training.

Intervention Type
Other

Primary outcome(s)
1. Musculoskeletal injuries incidence: The number of musculoskeletal injuries diagnosed during outpatient medical visits during basic police training period measured using Abu Dhabi Police Training Academy medical records at the end of basic military training

2. Days lost during training: The total number of days lost during basic police training days measured using Abu Dhabi Police Training Academy medical records at the end of basic military training

3. Attrition rate: Rate at which police recruit leave the basic police training due to musculoskeletal injuries sustained during the training measured using Abu Dhabi Police Training Academy medical records at the end of basic military training

Key secondary outcome(s)

Completion date
01/11/2022

Eligibility

Key inclusion criteria
1. Male Abu Dhabi Police recruits
2. Age between 18 and 40 years
3. Successfully passed the Recruitment Medical Screening (RMS), including:
3.1. Physical examination
3.2. Blood tests
3.3. Mental health assessment
3.4. Vision examination
3.5. Chest X-ray
3.6. Willing to participate and provided informed consent

Healthy volunteers allowed
Yes

Age group
Adult

Lower age limit
18 Years

Upper age limit
40 Years

Sex
Male

Total final enrolment
441

Key exclusion criteria
1. Presence of current musculoskeletal injury at baseline
2. History of significant musculoskeletal injury or surgery within the past 6 months
3. Any medical condition contraindicating participation in physical training (e.g., cardiovascular, neurological, or systemic conditions)
4. Failure to pass the recruitment medical screening
5. Incomplete baseline assessment data
6. Refusal or inability to provide informed consent

Date of first enrolment
01/11/2021

Date of final enrolment
01/05/2022

Locations

Countries of recruitment
United Arab Emirates

Study participating centre
Abu Dhabi Police GHQ
Shakhbout Bin Sultan Street , Al Nahyan Area
Abu Dhabi
United Arab Emirates
253

Sponsor information

Organisation
Loma Linda University

ROR
https://ror.org/04bj28v14

Funder(s)

Funder type

Funder Name
Loma Linda University

Alternative Name(s)
LLU

Funding Body Type
Private sector organisation

Funding Body Subtype
Universities (academic only)

Location
United States of America

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		23/06/2026	28/07/2026	Yes	No