

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	<input type="checkbox"/> Prospectively registered
Registration date 13/04/2026	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 13/04/2026	Condition category Injury, Occupational Diseases, Poisoning	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Principal investigator, Scientific, Public

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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

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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