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Scientific evidence on the purposes, populations, and contexts in the use of Army Combat Fitness Test: A scoping review

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ADMINISTRATIVE INFORMATION

Support - There is no financial support.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 28 January 2026 and was last updated on 28 January 2026.

INTRODUCTION

Review question / Objective How has the Army Combat Fitness Test been used in scientific research, and what kind of evidence exists regarding its purposes, populations evaluated, and areas of application over time? Its research objective is to map and synthesize the scientific evidence on the use of the Army Combat Fitness Test, identifying the type of evidence that exists on its purposes, populations evaluated, and areas of application over time as reported in the scientific literature.

Background In the particular case of the United States Army, physical assessments have undergone changes throughout history. Initially, the Army Physical Fitness Test (APFT) measured aerobic capacity, strength, and muscular endurance (Knapik, 1989) in order to relate the elements of the test to the activities of soldiers (Knapik & East, 2014). Following this logic, an assessment in line with the physical requirements

of military personnel was developed: the Army Combat Fitness Test (ACFT), consisting of six events and used in 2020, placing emphasis on aerobic fitness, muscular endurance, strength and power production, load carrying, and other military-relevant tasks (Harty et al., 2022). and in 2022 it became the official test of the U.S. Army (Hicks et al., 2025).

Rationale Although the ACFT is recent, it has been researched in military and non-military contexts from other disciplines and contexts, making it difficult to obtain a more comprehensive view of its use, applications, evaluated populations, methodological approaches, and possible gaps in research.

METHODS

Strategy of data synthesis PubMed: ("Military"[Title/Abstract] OR "Soldier"[Title/Abstract] OR "Soldiers"[Title/Abstract] OR "Cadets"[Title/Abstract] OR "Cadet"[Title/Abstract]

OR "recruit"[Title/Abstract] OR "Armed forces"[Title/Abstract] OR "Military veterans"[Title/Abstract] OR "Military personnel"[Title/Abstract] OR "Male"[Title/Abstract] OR "Female"[Title/Abstract] OR "Women"[Title/Abstract] OR "Woman"[Title/Abstract] OR "Men"[Title/Abstract] OR "Man"[Title/Abstract])) AND (("ACFT"[Title/Abstract] OR "Army Combat Fitness Test"[Title/Abstract]))

Scopus: KEY (("Military" OR "Soldier" OR "Soldiers" OR "Cadets" OR "Cadet" OR "recruit" OR "Armed forces" OR "Military veterans" OR "Military personnel" OR "Male" OR "Female" OR "Women" OR "Woman" OR "Men" OR "Man")) AND TITLE-ABS-KEY (("ACFT" OR "Army Combat Fitness Test")))
 WoS: ("Military" OR "Soldier" OR "Soldiers" OR "Cadets" OR "Cadet" OR "recruit" OR "Armed forces" OR "Military veterans" OR "Military personnel" OR "Male" OR "Female" OR "Women" OR "Woman" OR "Men" OR "Man") (Topic) and ("ACFT" OR "Army Combat Fitness Test") (Topic).

Eligibility criteria Selection criteria

The inclusion criteria were a) documents containing the search terms up to January 24, 2025, b) samples related to people, c) results reporting the use of ACFT, d) articles written in English, and e) open access articles.

Exclusion criteria were as follows: a) duplicate documents between the databases used, b) review articles, reports, theses, commentaries, and protocols, c) studies that did not report the use of ACFT, and d) closed-access articles.

Participants, Concept, and Context

The participants were military and non-military personnel who had been evaluated by the ACFT. The Concept focuses on the purposes, populations evaluated, and areas of application in the course of using the ACFT. Finally, the Context considered any context in which the ACFT has been used.

Source of evidence screening and selection

Study selection

Two researchers (S.S.G. and C.G-A.) independently reviewed the articles and extracted the data. In the event of disagreement, a third researcher (A.C.-P) applied the selection criteria as appropriate.

Data management

The information will be analyzed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist and JBI guidance for scoping reviews.

Presentation of the results The following data were extracted: a) authors, b) year of publication, c) origin/country of origin, d) objective/purpose, e) population, f) design and methodology, g) type of intervention, h) outcomes, and i) key findings. Additionally, j) complementary measurements and their respective instruments will be included.

Language restriction Articles written in English.

Country(ies) involved Chile and Spain.

Keywords Army Combat Fitness Test; ACFT; Physical Condition; Physical Fitness.

Contributions of each author

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