

PICO framework

The Effect of Fatigue on Kinetic and Kinematic Variables in Individuals with Flat Foot during gait

Population: "Flat Feet" OR "Pes Planus" OR "Foot Arch Collapse" OR "Pronation" OR "Low Arch Foot" OR "Fallen Arches" OR "Hyperpronation" OR "Flat Foot Syndrome" OR "Collapsed Foot Arch" OR "Foot Deformities"

Intervention: "Fatigue" OR "Exhaustion" OR "Muscle Fatigue" OR "Physical Fatigue" OR "Tiredness" OR "Fatigue Induction" OR "Fatigue Resistance" OR "Post-Exercise Fatigue" OR "Chronic Fatigue" OR "Acute Fatigue" OR "Fatigue Training" OR "Muscular Weakness"

Outcome: "Gait" OR "Walking" OR "Stride Length" OR "Kinetics" OR "Kinematics" OR "Ground Reaction Forces" OR "Postural Stability" OR "Balance" OR "Foot Function" OR "Movement" OR "Walking Patterns" OR "Cadence" OR "Step Length" OR "Joint Angles" OR "Stride Time" OR "Gait Cycle" OR "Walking Efficiency" OR "Foot Pressure" OR "Step Dynamics" OR "Postural Control" OR "Spatiotemporal Variables"

Comparison: Comparison: control OR empty

Table 1. Results of the Search strategy

Pubmed		
("Flatfoot"[MeSH] OR "Pes Planus"[MeSH] OR "Foot Arch Collapse"[MeSH] OR "Pronation"[MeSH] OR "Low Arch Foot"[MeSH] OR "Fallen Arches"[MeSH] OR "Hyperpronation"[MeSH] OR "Flat Foot Syndrome"[MeSH] OR "Collapsed Foot Arch"[MeSH] OR "Foot Deformities"[MeSH]) AND ("Fatigue"[MeSH] OR "Exhaustion"[MeSH] OR "Muscle Fatigue"[MeSH] OR "Physical Fatigue"[MeSH] OR "Tiredness"[MeSH] OR "Fatigue Induction"[MeSH] OR "Fatigue Resistance"[MeSH] OR "Post-Exercise Fatigue"[MeSH] OR "Chronic Fatigue"[MeSH] OR "Acute Fatigue"[MeSH] OR "Fatigue Training"[MeSH] OR "Muscular Weakness"[MeSH]) AND ("Gait"[MeSH] OR "Walking"[MeSH] OR "Stride Length"[MeSH] OR "Kinetics"[MeSH] OR "Kinematics"[MeSH] OR "Ground Reaction	388	1971-2025

Forces"[MeSH] OR "Postural Stability"[MeSH] OR "Balance"[MeSH] OR "Foot Function"[MeSH] OR "Movement"[MeSH] OR "Walking Patterns"[MeSH] OR "Cadence"[MeSH] OR "Step Length"[MeSH] OR "Joint Angles"[MeSH] OR "Stride Time"[MeSH] OR "Gait Cycle"[MeSH] OR "Walking Efficiency"[MeSH] OR "Foot Pressure"[MeSH] OR "Step Dynamics"[MeSH] OR "Postural Control"[MeSH] OR "Spatiotemporal Variables"[MeSH]).		
Embase		
('flat foot'/exp OR 'flat foot syndrome' OR 'pes planus' OR 'foot arch collapse' OR 'pronation' OR 'hyperpronation' OR 'low arch foot' OR 'fallen arches' OR 'collapsed foot arch' OR 'foot deformities') AND ('fatigue'/exp OR 'muscle fatigue'/exp OR 'physical fatigue' OR 'chronic fatigue' OR 'acute fatigue' OR 'post-exercise fatigue' OR 'fatigue training' OR 'fatigue resistance' OR 'fatigue induction' OR 'tiredness' OR 'muscular weakness') AND ('gait'/exp OR 'walking'/exp OR 'stride length' OR 'gait cycle' OR 'step length' OR 'stride time' OR 'cadence' OR 'walking efficiency' OR 'walking patterns' OR 'movement'/exp OR 'joint angle'/exp OR 'kinetics' OR 'kinematics' OR 'ground reaction force'/exp OR 'foot pressure' OR 'postural stability'/exp OR 'balance'/exp OR 'foot function' OR 'postural control'/exp OR 'step dynamics' OR 'spatiotemporal variables').	138	1990-2025
WOS		
TS=("Flat Feet" OR "Pes Planus" OR "Foot Arch Collapse" OR "Pronation" OR "Low Arch Foot" OR "Fallen Arches" OR "Hyperpronation" OR "Flat Foot Syndrome" OR "Collapsed Foot Arch" OR "Foot Deformities" OR "Arch Drop" OR "Flatfoot Biomechanics" OR "Flexible Flatfoot") AND TS=("Fatigue" OR "Exhaustion" OR "Muscle Fatigue" OR "Physical Fatigue" OR "Tiredness" OR "Fatigue Induction" OR "Fatigue Resistance" OR "Post-Exercise Fatigue" OR "Chronic Fatigue" OR "Acute Fatigue" OR "Fatigue Protocol" OR "Neuromuscular Fatigue" OR "Endurance Fatigue" OR "Prolonged Fatigue") AND TS=("Gait" OR "Walking" OR "Stride Length" OR "Kinetics" OR "Kinematics" OR "Ground Reaction Forces" OR "Postural Stability" OR "Balance" OR "Foot Function" OR "Movement" OR "Walking Patterns" OR "Cadence" OR "Step Length" OR "Joint Angles" OR "Stride Time" OR "Gait Cycle" OR "Walking Efficiency" OR "Foot Pressure" OR "Step Dynamics" OR "Postural Control" OR "Spatiotemporal Variables" OR "Motion Analysis" OR "Dynamic Balance" OR "Locomotion")	294	1993-2025
Scopus	133	1993-2025

TITLE-ABS-KEY(("flat feet" OR "pes planus" OR "foot arch collapse" OR "pronation" OR "low arch foot" OR "fallen arches" OR "hyperpronation" OR "flat foot syndrome" OR "collapsed foot arch" OR "foot deformities")) AND TITLE-ABS-KEY(("fatigue" OR "exhaustion" OR "muscle fatigue" OR "physical fatigue" OR "tiredness" OR "fatigue induction" OR "fatigue resistance" OR "post-exercise fatigue" OR "chronic fatigue" OR "acute fatigue" OR "fatigue training" OR "muscular weakness")) AND TITLE-ABS-KEY(("gait" OR "walking" OR "stride length" OR "kinetics" OR "kinematics" OR "ground reaction forces" OR "postural stability" OR "balance" OR "foot function" OR "movement" OR "walking patterns" OR "cadence" OR "step length" OR "joint angles" OR "stride time" OR "gait cycle" OR "walking efficiency" OR "foot pressure" OR "step dynamics" OR "postural control" OR "spatiotemporal variables"))		
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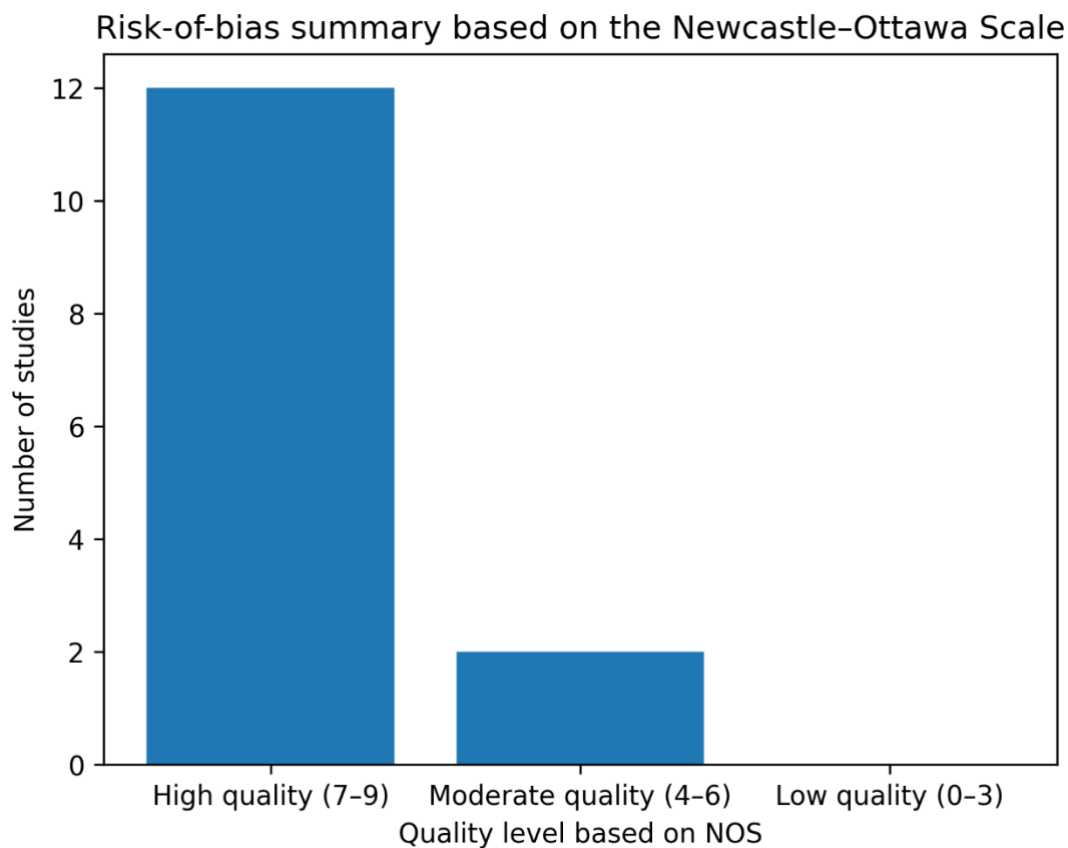


Fig. 1 visual risk-of-bias summary based on the NOS ratings.

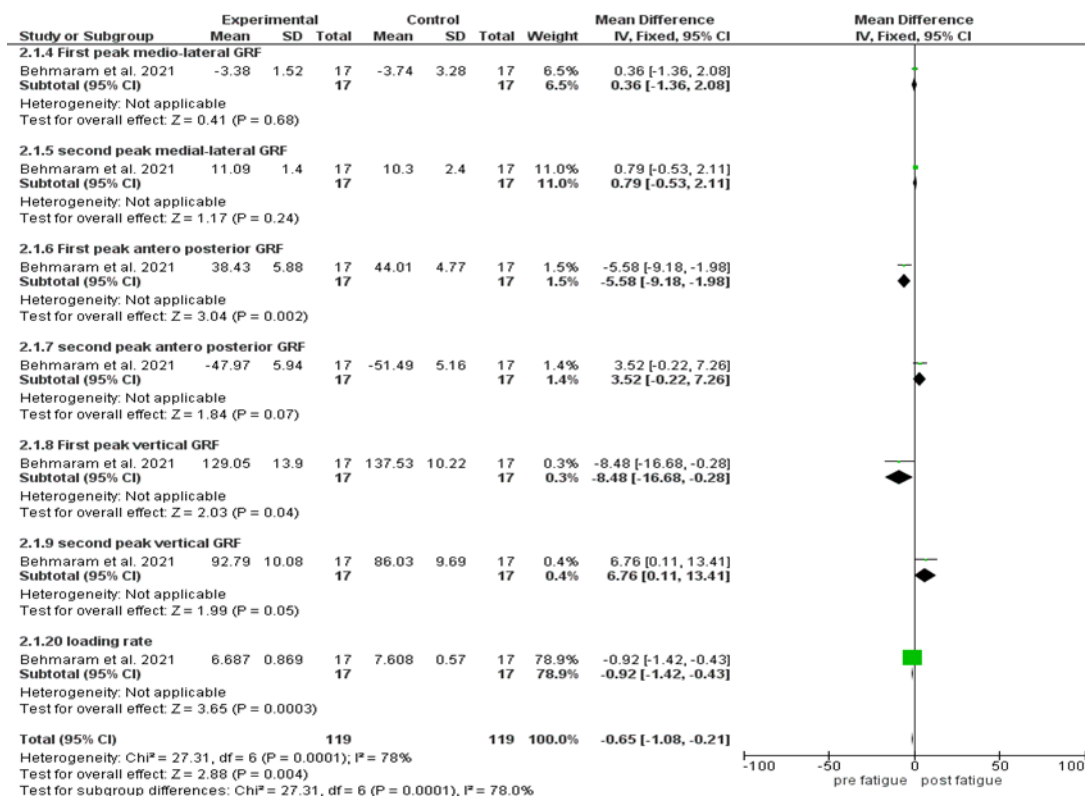


Fig. 2 Results of analysis of ground reaction force.

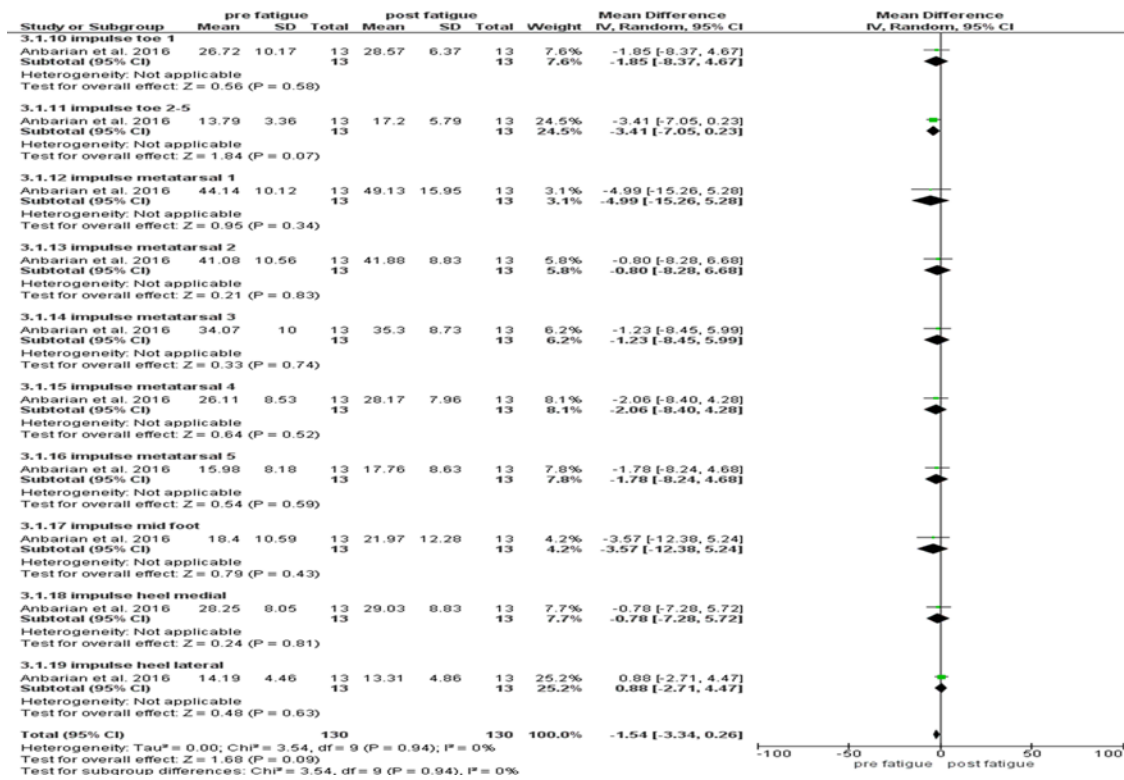


Fig. 3 Results of analysis of impulse.

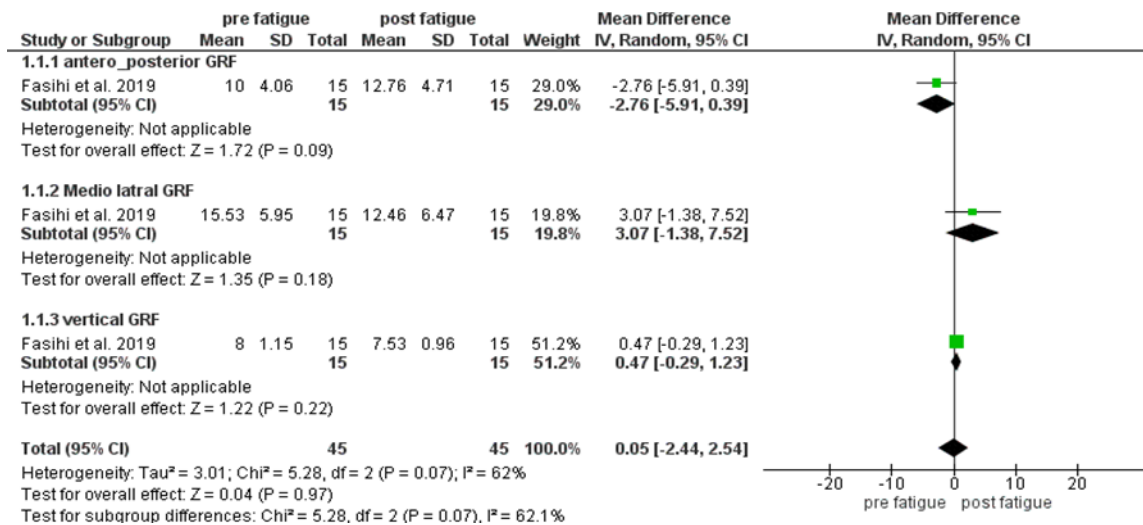


Fig. 4 Results of analysis of ground reaction force.

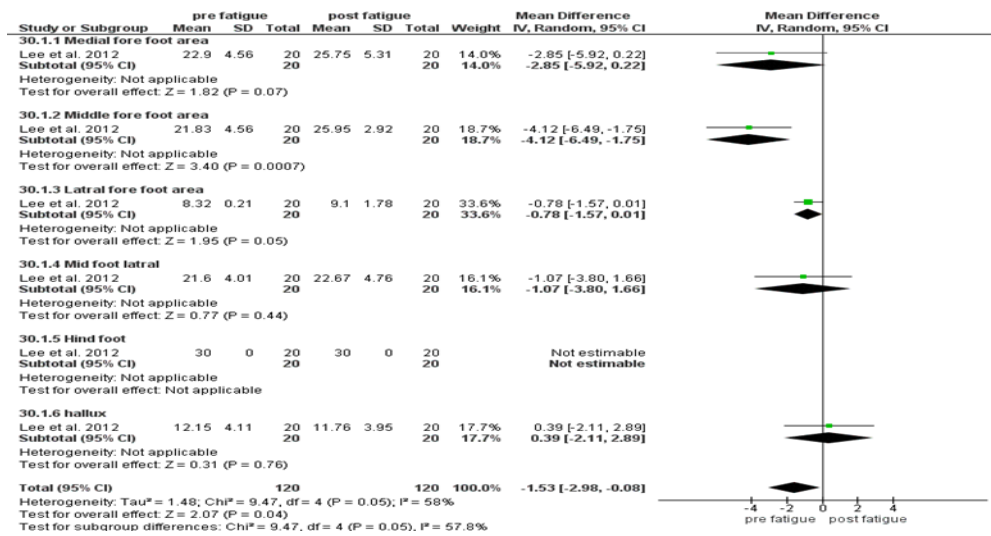


Fig. 5 Results of analysis of foot pressure.

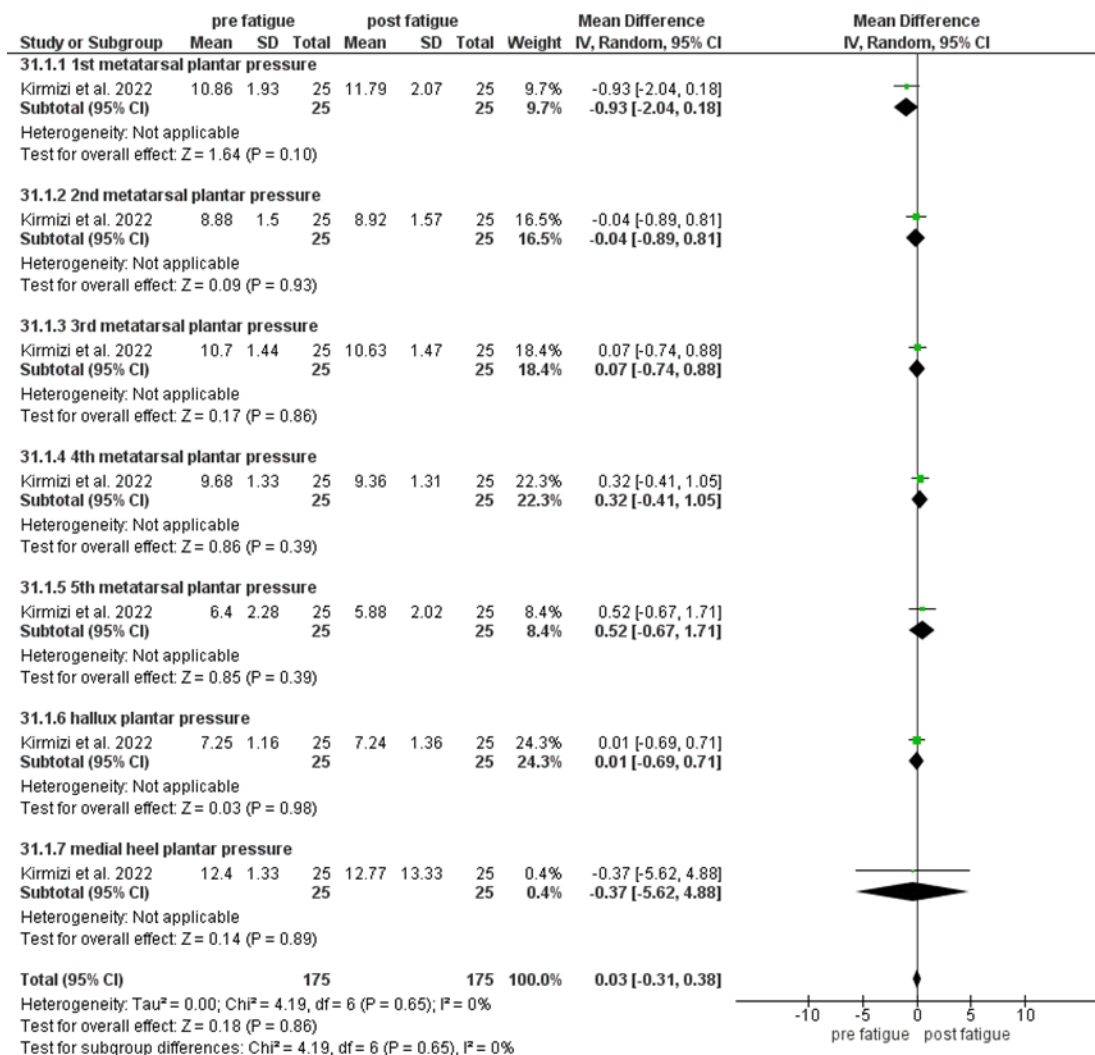


Fig. 6 Results of analysis of plantar pressure.

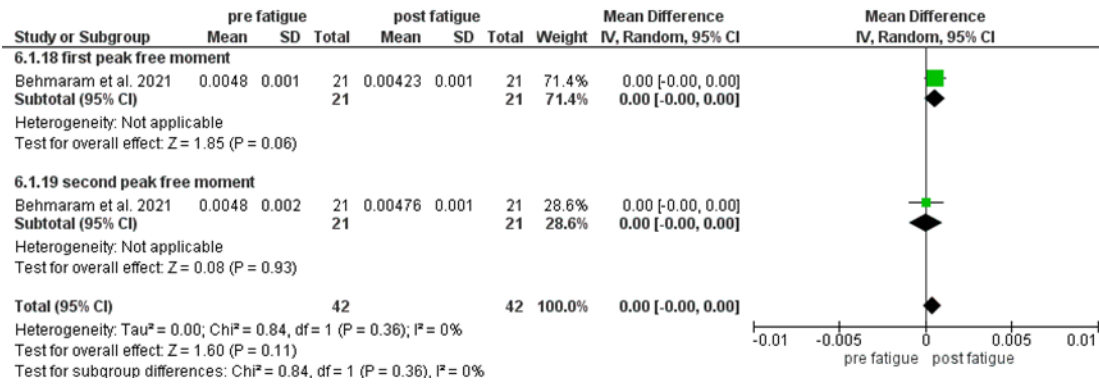


Fig. 7 Results of analysis of moments.

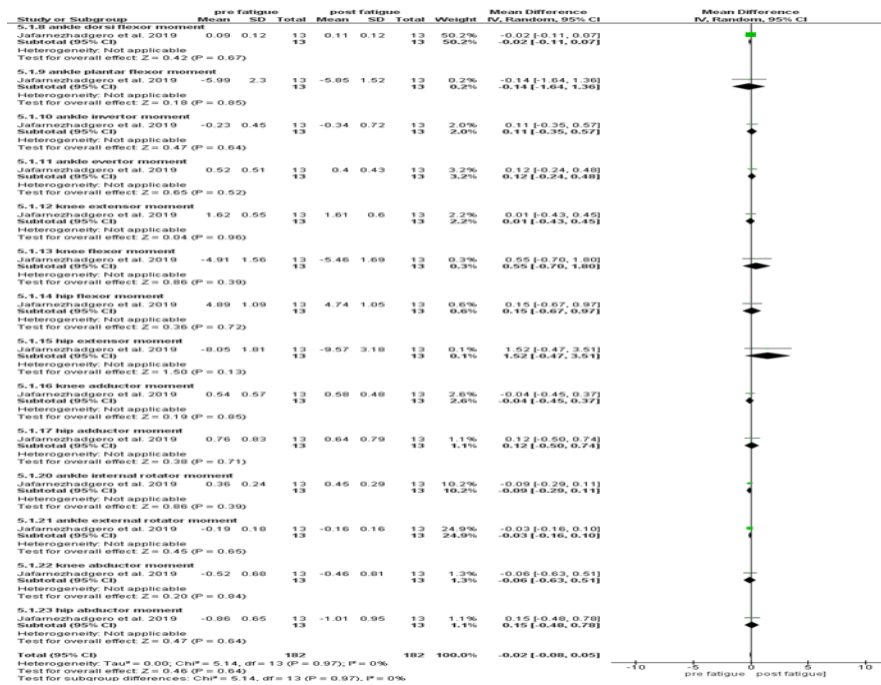


Fig. 8 Results of analysis of moments.

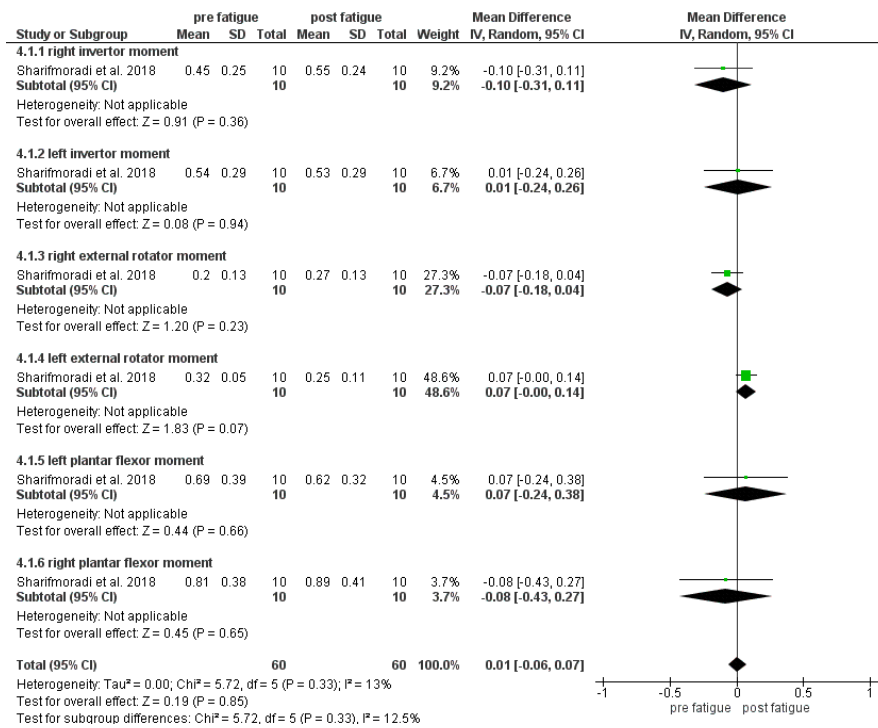


Fig. 9 Results of analysis of moments.

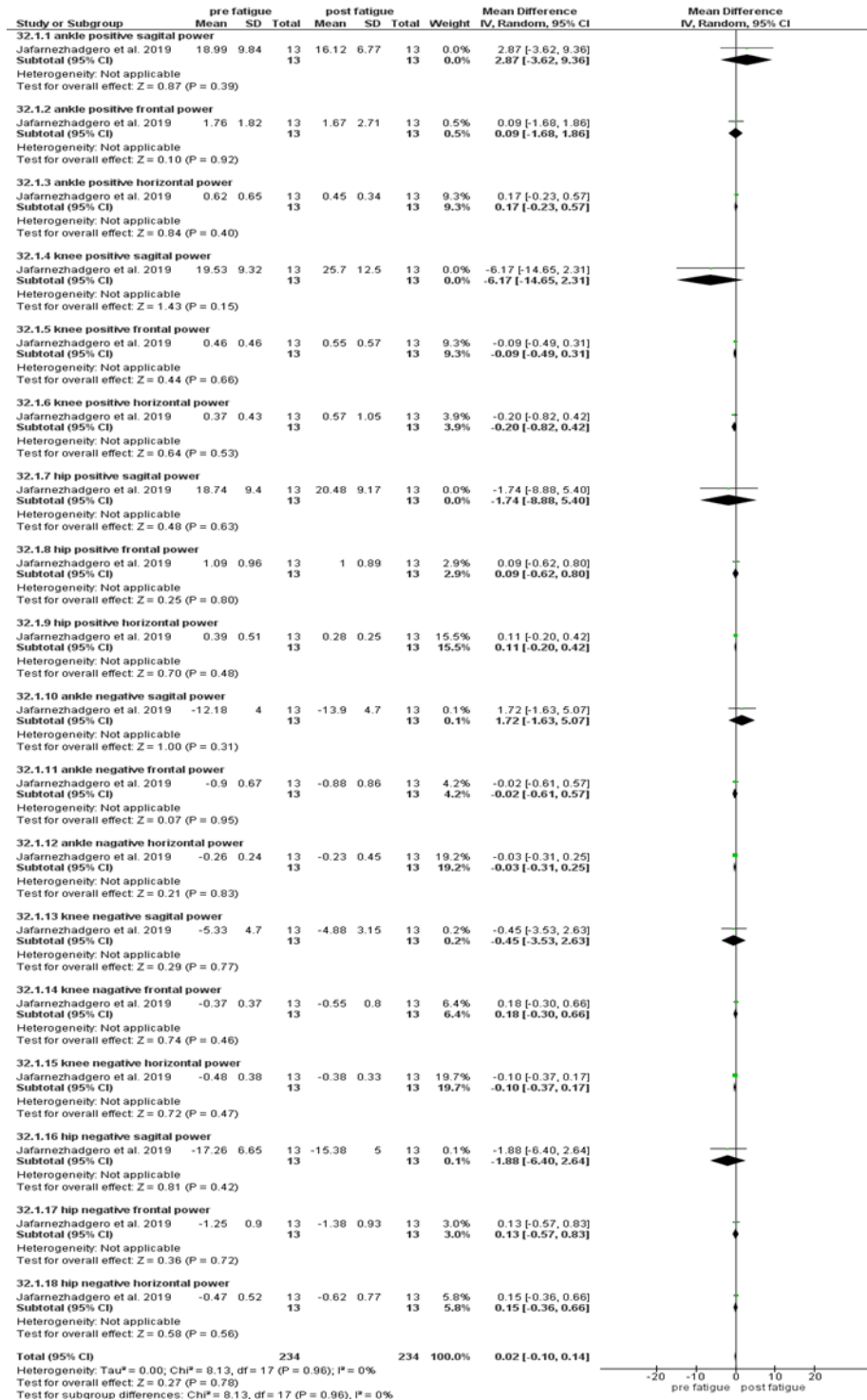


Fig. 10 Results of analysis of power.

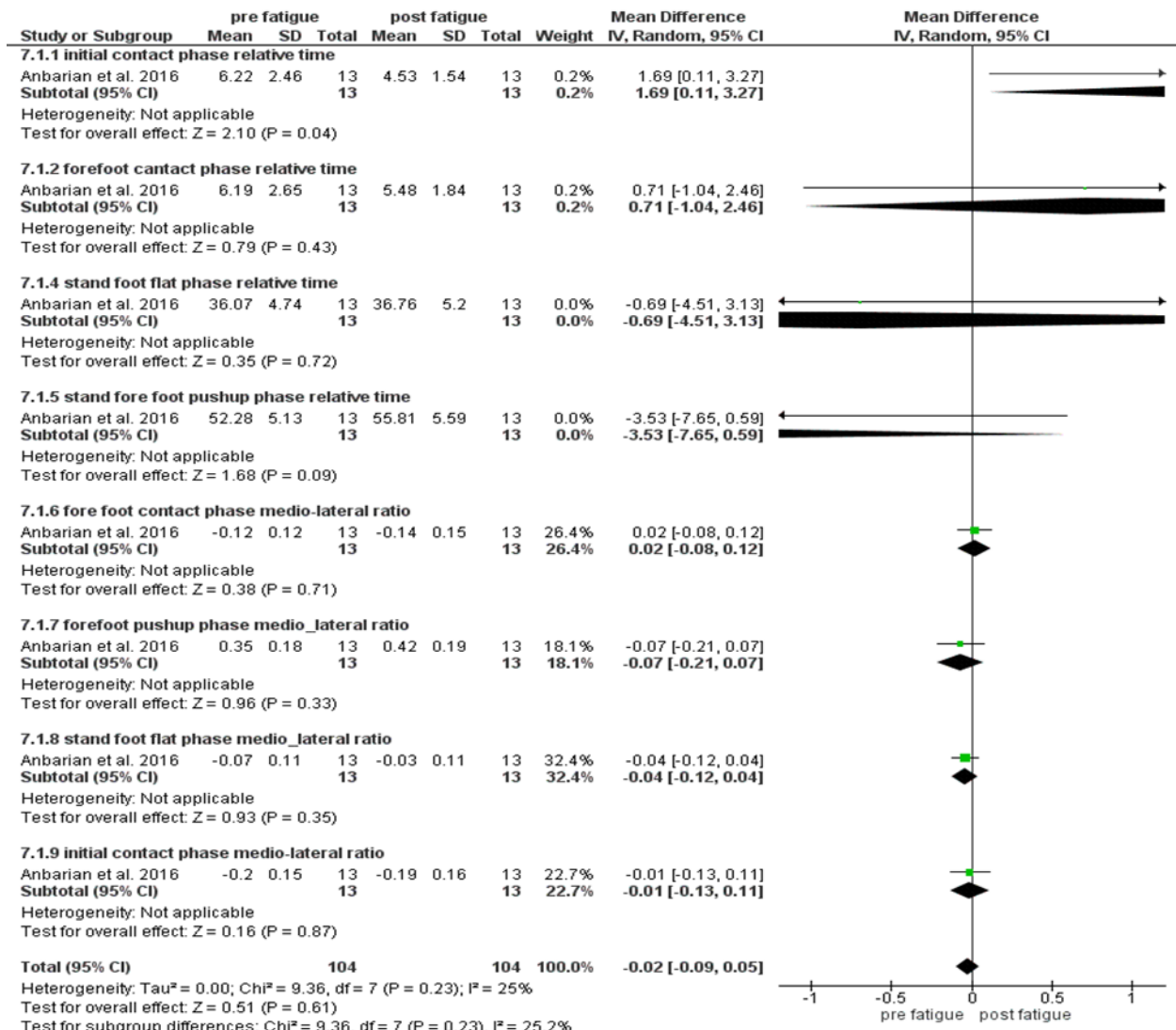


Fig. 11 Results of analysis of spatiotemporal parameters .

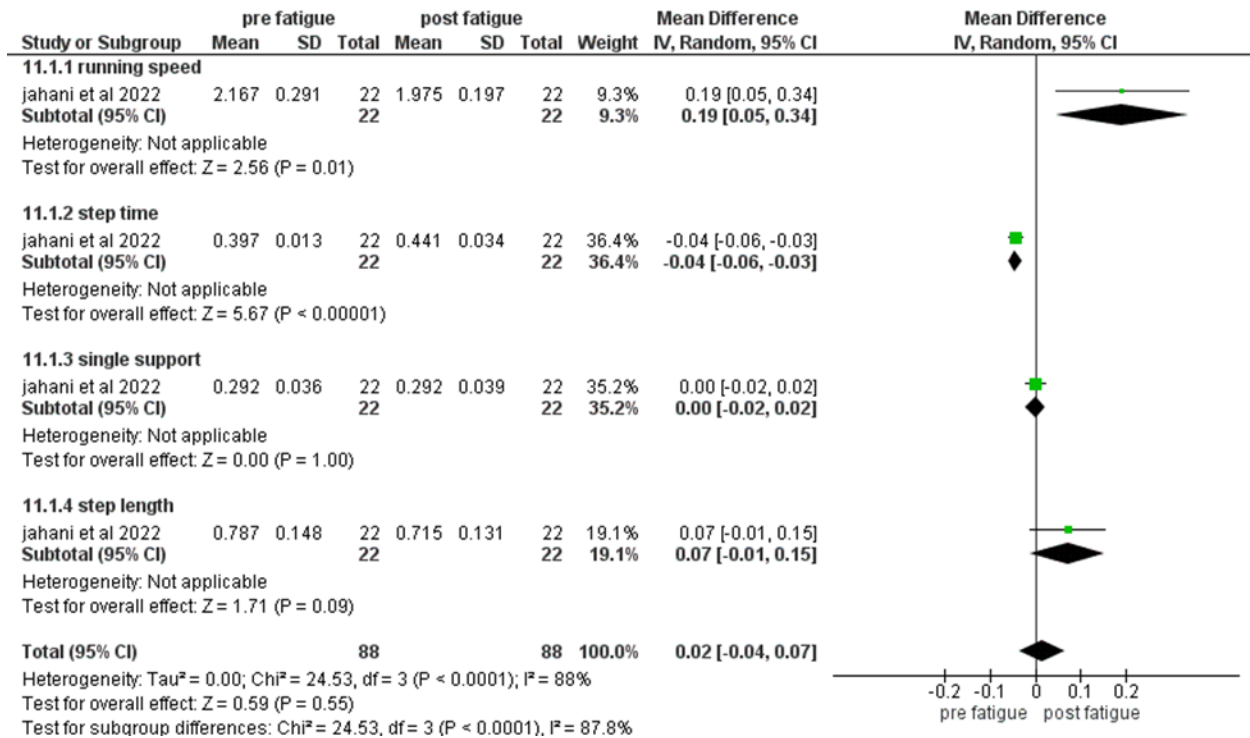


Fig. 12 Results of analysis of spatiotemporal parameters.

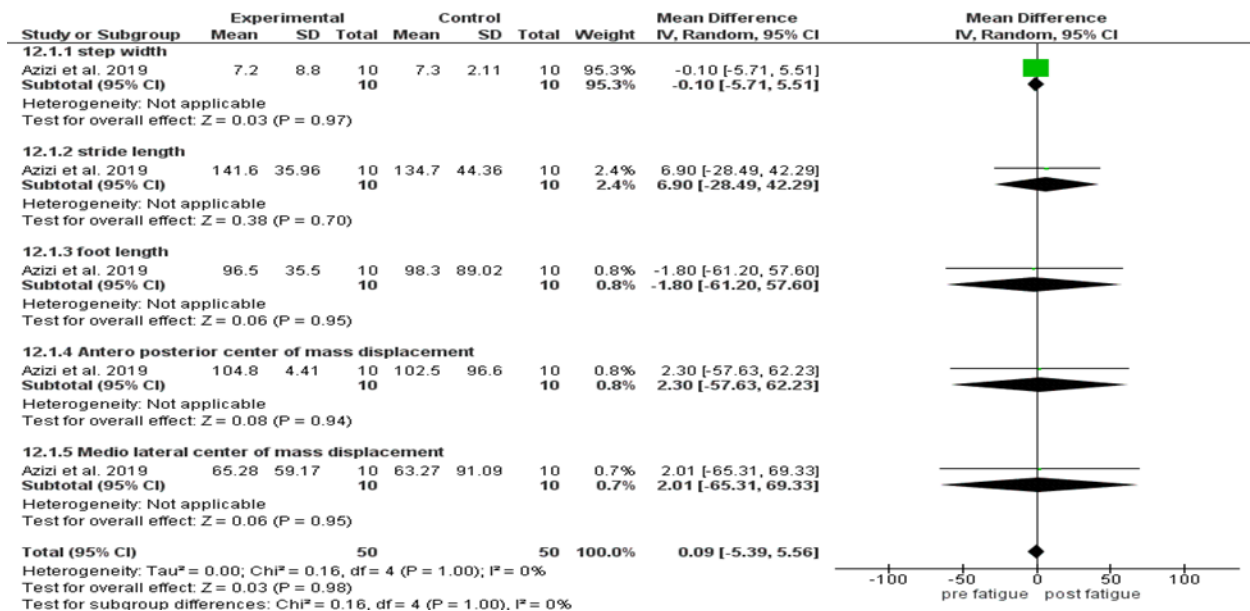


Fig. 13 Results of analysis of spatiotemporal parameters.