



Many Recreational Runners Rely On NSAIDs To Manage Joint Pain And Keep Active

Background

High training load, poor technique and insufficient recovery are associated with musculoskeletal injuries and joint pain in recreational athletes.

Here, we investigate recreational running and Nordic Walking training loads (distance and pace) and consider Non-Steroidal Anti-Inflammatory Drug (NSAID) use in people self-reporting current and chronic multi-joint pain.

Aim

To investigate self-reported lower limb joint pain and physical activity in runners and Nordic Walkers.

Methods

- Baseline data from 'Running Through', a prospective cohort study of community runners, joggers and Nordic walkers aged over 18, were collected via an electronic survey between February 2021–February 2022.
- Weekly messages were sent to participants to capture pain and injury incidence, whilst data collected through running smartwatches and mobile phone apps monitored total weekly running distance (kilometres per week) and running pace (minutes per kilometre).
- Respondents' data were analysed by the number of different joints they self-reported experiencing persistent pain in (zero, one, or more than one) at baseline and throughout the study.
- Study designed in collaboration with Patient and Public Involvement (PPI) members of Nottingham running community.

Results

Baseline characteristics

2726 participants
57% female
Mean age 49.78 years (SD 12.69)

Mean BMI 24.4 (SD 4.2)
19% self-report having an injury or illness which affects their running

Current pain at baseline	Regular NSAID use	Neck	Shoulder	Elbow	Wrist	Hand	Wrist	Hand	Wrist	Hand
22.72%	14.40%	19.64%	14.02%	11.96%	14.38%	6.78%	11.06%			

Current lower joint pain was reported by **31.9%**

Persistent lower joint pain for **most days of the past month** was reported by **26.64%**

Neck	Shoulder	Elbow	Wrist	Hand
19.7%	11.8%	6.9%	9.4%	9.1%

Persistent lower joint pain for **most days of the past month** was reported by **27%**

Neck	Shoulder	Elbow	Wrist	Hand
22%	5%			

Runners with **one** painful joint are **2.5** times more likely to report regular **NSAID** use (95% CI 1.9 to 3.4) compared to runners with no painful joints

Runners with **two or more** painful joints are **3.2** times more likely to report regular **NSAID** use (95% CI 1.9 to 5.3) compared to runners with no painful joints

Running Distance	Running Pace	One Painful Joint	Two or More Painful Joints	No Painful Joints	
22.5km per week (95% CI: 9.3 to 35.7)	6.3min/km (SD 1.8)	21.4 km per week (95% CI: 9.6 to 33.3)	6.3min/km (SD 1.7)	25.0 km per week (95% CI: 9.2 to 40.9)	6.5min/km (SD 2.1)

Conclusions.

- Almost one-third of runners reported at least one currently painful lower limb joint, with a quarter reporting experiencing chronic joint pain for at least a month.
- Recreational runners with one or multiple painful lower joints report similar weekly running distances and speed when compared to recreational runners who do not report persistent lower extremity pain, this may be explained by the increasing use of NSAIDs to improve pain management.
- There is a need to develop preventative interventions to reduce the risk of injury and pain whilst supporting people to remain physically active.

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