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One-Season Epidemiology of Injury Complaints in Athletics (Track and Field)

Epidemiologie von Verletzungen während einer Leichtathletik-Saison

SHORT REPORT

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Summary

- **Problem:** Injuries in athletics are common and may lead to restrictions in athletics participation and performance. We thus aimed to describe the epidemiology (prevalence, incidence, burden, characteristics) of injuries self-reported by the athletes ("injury complaint leading to participation restriction" (ICPR)) in athletics athletes) over one athletics season.
- **Methods:** For this study, we used data from the "PREVATHLE" randomized controlled trial and only from athletes of the control group who provided 100% of the weekly responses. On a weekly basis, we collected individual information via a questionnaire on the preceding week: number of hours of training and competition, and any ICPR (circumstance, mode of onset and location). The primary outcome was ICPR.
- **Results:** Overall, full data sets were available for 100 athletes. One hundred twenty-seven ICPR were reported from 65 athletes over the season, corresponding to a prevalence rate of 65 ICPR per 100 athletes (95%CI: 55.7-74.3). The incidence rate was 8.3 ICPR per 1000h (95%CI: 6.9-9.7), the overall injury burden was 285.6 (SD=619.6) days with an ICPR per 1000h, and the time before the first ICPR was 12.4 (SD=10.4) weeks. Most acute injuries occurred at the ankle (9.4%), while most overuse injuries occurred at the lower leg (15.0%).
- **Conclusion:** This present epidemiological study describes in detail the epidemiology of ICPR in athletics athletes over one whole athletics season, representing an additional piece to better understand the extent of injury problem in athletics.

KEY WORDS:
Musculoskeletal Pathologies, Prevention, Monitoring

Zusammenfassung

- **Problem:** Verletzungen in der Leichtathletik sind häufig und können zu Einschränkungen bei der sportlichen Teilnahme und Leistung führen. Unser Ziel war es daher, die Epidemiologie (Prävalenz, Inzidenz, Bürde, Merkmale) der von den Athleten selbst gemeldeten Verletzungen („Verletzungen, die zur Teilnahmebeschränkung führen") über eine Leichtathletiksaison zu beschreiben.
- **Methoden:** Für diese Studie verwendeten wir Daten aus der randomisierten kontrollierten Studie „PREVATHLE" und zwar von Athletinnen und Athleten der Kontrollgruppe, die 100% der wöchentlichen Antworten lieferten. Wöchentlich erhoben wir über einen Fragebogen individuelle Angaben zur Vorwoche: Anzahl der Trainings- und Wettkampfstunden sowie alle Verletzungen (Umstand, Entstehungsart und Lokalisation). Der primäre Endpunkt war Verletzungen.
- **Ergebnisse:** Insgesamt lagen vollständige Datensätze von 100 Athletinnen und Athleten vor. Es wurden insgesamt 127 Verletzungen von 65 Athletinnen und Athleten während der Saison registriert, was einer Prävalenzrate von 65 Verletzungen pro 100 Personen entspricht (95% CI: 55,7-74,3). Die Inzidenzrate betrug 8,3 Verletzungen pro 1000 h (95% CI: 6,9-9,7), die Gesamtverletzungslast betrug 285,6 (SD=619,6) Tage mit einer Verletzungen pro 1000 h und die Zeit vor der ersten Verletzungen betrug 12,4 (SD=10,4) Wochen. Die meisten akuten Verletzungen traten am Knöchel auf (9,4%), während die meisten Überbeanspruchungsverletzungen am Unterschenkel auftraten (15,0%).
- **Schlussfolgerung:** Diese vorliegende epidemiologische Studie beschreibt im Detail die Verletzungsepidemiologie bei Leichtathletinnen und -athleten über eine ganze Leichtathletiksaison und stellt einen zusätzlichen Beitrag zum besseren Verständnis der Verletzungsproblematik in der Leichtathletik dar.

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Introduction

Athletics (track and field) is an Olympic sport practiced worldwide, which includes different disciplines requiring running, jumping, and/or throwing. These disciplines can be divided into explosive disciplines (sprints, hurdles, jumps, throws, combined events), middle- and long- distances track running, road running (including among others 5 km, 10 km and marathon, and race walking), as well as trail running.

The practice of athletics, as all physical activities and sports (3), leads to health benefits. However, these benefits can be counterbalanced by the risk of injuries. Indeed, the practice of athletics invariably leads to a risk of injuries (7, 9). In order to optimize the beneficial effects on health lead by the athletics' practice and also to allow a healthy and sustainable practice for competitive athletes, ›

it is fundamental to reduce the risk of injuries related to the athletics' practice (7). With this aim, a first step in the injury prevention sequence is to understand the extend of the injury problem by clear knowledge on injury epidemiology, which is of great help to develop injury risk reduction strategies (15). Current epidemiological studies on injuries in athletics reported that about two-thirds of athletes sustained at least one injury during an athletics season, with some variations in the injury characteristics according to sex and disciplines (2, 4, 6, 7, 9, 12, 13, 14). However, since few of these studies used a prospective design over one athletics season (4, 12, 14) and that some parameters (especially injury burden (1)) have not been well described, there is a need to continue prospective epidemiological studies on injuries in athletics to confirm and extend this knowledge.

In this context, the aim of this study was to describe the epidemiology (prevalence, incidence, burden, characteristics) of athletics-related injury complaints leading to participation restriction" (ICPR) in athletics (track and field) athletes over on athletics season.

Methods

In the present study, we used data from the "PREVATHLE" randomized controlled trial (RCT) (10), which was approved by the Committee for the Protection of Persons (CPP Ouest II-Angers, number: 2017-A01980-53) and registered on ClinicalTrials.gov (Identifier: NCT03307434). Specifically, we only used data of the athletes from the control group to ensure that data are representative of the usual athletics practice. We also only used data for athletes who provided 100% of the weekly responses, since i) missing data could lead to bias, and ii) data imputation of the outcome (i.e., ICPR) is at high risk of bias as we are currently not able to predict ICPR with 100% accuracy (10).

Athletes were included at the start of the 2017–2018 athletics season, if they were licensed at the French Federation of Athletics (FFA) in a club of at least 15 athletes, without any contraindications for competitive athletics activity attested by the license at the FFA. Further inclusion criteria were an age between 15 to 40 years and having access to the Internet.

The primary outcome was "injury complaint related to athletics practice that leads to restriction in athletics participation" (ICPR) corresponding to "injury complaint" reported by athletes and sustained by an athlete during participation in athletics training or competition that lead to a reduced participation or full absence in athletics (10). Exposure was also self-reported on an individual basis as hours of training and competition.

At the start of the season, we collected baseline information on each included athlete using a survey developed in Google Forms (Google®): sex, age, height, body mass, discipline, and history of ICPR during the preceding season (yes or no) (10). During the season, we automatically sent an e-mail every Monday with a secured link to the weekly online questionnaire to all included athletes to collect information on the preceding week: number of hours of training and competition (i.e., exposure to athletics practice), and if any ICPR (with its characteristics: circumstance (training or competition), mode of onset (sudden or gradual (16)), and injury location (16)) (10).

Descriptive analyses performed were frequency and percentages for categorical data, means and standard deviations (SD) for continuous variables, as well as the proportion of athletes who had at least one ICPR (i.e., prevalence), the number of ICPR, the rate of ICPR per 1000 hours of athletics (i.e., incidence), the number of days with ICPR per 1000 hours of athletics (i.e., burden), and the time before the first ICPR, over the follow-up period (39 weeks), for training, competition and total ICPR (10,16). These number and rates were calculated according to sex (i.e., female and male athletes) and disciplines (i.e., explosive disciplines (sprints, hurdles, jumps, throws, combined events), middle- and long- distances track running, road running (including among others 5 km, 10 km and marathon, and race walking), as well as trail running).

Results

In the present study, we used the data from 100 athletes, originally included in the control group and with 100% response proportion, out of the 391 athletes included in this control group (25.6%) of the "PREVATHLE" RCT (10). The anthropometrical characteristics of the included athletes are presented in table 3, see supplemental material online.

Overall, 127 ICPR were reported from 65 of the 100 athletes over the season with a total exposure of 15236.8 hours (table 3, see supplemental material online). This corresponded to a prevalence rate of 65 ICPR per 100 athletes (95%CI 55.7 to 74.3) and an incidence rate of 8.3 ICPR per 1000h (95%CI 6.9 to 9.7) (table 1). The overall injury burden was 285.6 (SD=619.6) days with an ICPR per 1000h (table 1). The time before the first ICPR was 12.4 (SD=10.4) weeks. The proportion of athletes who had at least one ICPR, the number of ICPR, the number of ICPR per 1000 hours of athletics, the number of days with ICPR per 1000 hours of athletics, and the time before the first ICPR, over the follow-up period (39 weeks), for total, training and competition ICPR are presented in table 1.

Two-thirds of injuries had a gradual mode of onset (62%). The most frequent injury location was the lower leg (18.9%), followed by the knee (14.2%), the ankle (13.4%), the hamstrings (12.6%), the foot (11.8%), the pelvic/hip/groin (8.7%), the Achilles tendon (8.7%) and the quadriceps (5.5%). Most acute injuries occurred at the ankle (9.4%) following by the knee (6.3%), while overuse injuries were predominantly at the lower leg (15%), the foot (10.2%). and the hamstrings (10.2%) (table 2).

Discussion

This prospective epidemiological study describes the epidemiology of self-reported injuries (i.e., injury complaints) over one athletics season. It provides a clear and complete description of the main epidemiological parameters: prevalence, incidence, burden, according to sex and disciplines, as well as circumstance of the injury. In addition, there is also the description of the injury characteristics (mode of onset and location). This detailed injury description is of great help to extend injury knowledge in athletics and to help to develop specific athletics-related injury risk reduction strategies (7).

The prevalence of injured athletes during the season reported in our study (65%) was comparable to that reported in the literature (2, 4, 6, 7, 9, 12, 13, 14). There was a clear difference in this prevalence according to the injury circumstances with higher prevalence of injured athletes due to training injuries (60% (95%CI 50 to 70%)) than competition injuries (23% (95%CI 15 to 31%)). This might be due to lower exposure to competition (about ten times less than training, table 3, see supplemental material online, reducing the probability of athletes to get injured during competition.

The average weekly prevalence showed that about 9.9% of athletes reporting at any time of the season suffering of

Table 1

The epidemiological data regarding "injury complaint leading to participation restriction" (ICPR): the proportion of athletes who had at least one ICPR, the average weekly prevalence of athletes with at least one ICPR, the number of ICPR, the number of ICPR per 1000 hours of athletics, the number of days with ICPR per 1000 hours of athletics, and the time before the first ICPR, over the follow-up period (39 weeks), for total, training and competition ICPR, according to discipline and sex.

	TOTAL			EXPLOSIVE		MIDDLE- AND LONG-DISTANCES TRACK RUNNING		ROAD RUNNING		TRAIL	
	TOTAL	F	M	F	M	F	M	F	M	F	M
Number of athletes (n (%))	100 (100.0)	29 (29.0)	71 (71.0)	9 (9.0)	12 (12.0)	5 (5.0)	14 (14.0)	8 (8.0)	32 (32.0)	7 (7.0)	13 (13.0)
PROPORTION OF ATHLETES WITH ICPR (N (%))											
Total	65 (65.0)	16 (55.2)	49 (69.0)	5 (55.6)	9 (75.0)	2 (40.0)	10 (71.4)	4 (50.0)	22 (68.8)	5 (71.4)	8 (61.5)
Training	60 (60.0)	14 (48.3)	46 (64.8)	4 (44.4)	9 (75.0)	2 (40.0)	9 (64.3)	4 (50.0)	21 (65.6)	4 (57.1)	7 (53.8)
Competition	23 (23.0)	4 (13.8)	19 (26.8)	1 (11.1)	4 (33.3)	0 (0.0)	3 (21.4)	1 (12.5)	7 (21.9)	2 (28.6)	5 (38.5)
AVERAGE WEEKLY PREVALENCE (MEAN (SD))											
Total	9.9 (3.0)	11.0 (4.7)	9.5 (3.3)	6.8 (8.3)	6.6 (6.9)	15.4 (10.7)	7.9 (5.6)	13.0 (12.1)	12.2 (5.1)	9.5 (11.0)	7.5 (7.8)
Training	8.3 (2.4)	8.8 (4.5)	8.1 (2.8)	6.3 (8.0)	5.1 (5.9)	15.4 (10.7)	6.6 (5.5)	9.0 (10.3)	11.0 (4.1)	7.0 (8.6)	5.3 (6.6)
Competition	1.4 (1.0)	1.3 (1.7)	1.5 (1.3)	0.6 (2.5)	1.5 (4.2)	0.0 (0.0)	1.1 (2.6)	1.9 (4.6)	1.4 (1.7)	2.6 (5.6)	2.0 (3.4)
NUMBER OF ICPR (N (%))											
Total	127 (100.0)	27 (21.3)	100 (78.7)	10 (7.9)	18 (14.2)	5 (3.9)	22 (17.3)	6 (4.7)	39 (30.7)	6 (4.7)	21 (16.5)
Training	99 (100.0)	22 (22.2)	77 (77.8)	8 (8.1)	13 (13.1)	5 (5.1)	18 (18.2)	5 (5.1)	31 (31.3)	4 (4.0)	15 (15.2)
Competition	28 (100.0)	5 (17.9)	23 (82.1)	2 (7.1)	5 (17.9)	0 (0.0)	4 (14.3)	1 (3.6)	8 (28.6)	2 (7.1)	6 (21.4)
INCIDENCE OF ICPR (NUMBER PER 1000H)) (N (±95%CI))											
Total	8.3 (1.4)	5.5 (2.1)	9.7 (1.9)	4.4 (2.7)	8.8 (4.0)	7.3 (6.4)	7.8 (3.3)	5.7 (4.5)	11.2 (3.5)	6.2 (5.0)	10.8 (4.6)
Training	7.3 (1.4)	5.2 (2.2)	8.3 (1.8)	4.5 (3.1)	7.3 (3.9)	7.7 (6.8)	6.7 (3.1)	5.1 (4.5)	9.7 (3.4)	4.8 (4.7)	9.2 (4.6)
Competition	16.5 (6.0)	7.1 (6.2)	23.2 (9.4)	4.3 (6.0)	19.2 (16.6)	0.0 (0.0)	28.2 (27.3)	12.5 (24.3)	28.6 (19.5)	15.7 (21.5)	19.4 (15.3)
INJURY BURDEN (NUMBER OF DAYS WITH ICPR PER 1000H) (N (±95%CI))											
Total	176.9 (6.1)	171.1 (10.5)	179.6 (7.4)	74.6 (10.9)	105.8 (13.3)	307.4 (34.6)	107.0 (11.4)	272.1 (26.9)	305.6 (15.3)	189.4 (24.8)	137.0 (15.3)
Training	167.0 (6.3)	163.4 (11.1)	168.7 (7.6)	86.1 (13.0)	93.8 (13.5)	325.1 (36.1)	94.3 (11.1)	201.1 (25.2)	299.5 (15.9)	159.6 (24.9)	115.8 (15.5)
Competition	230.5 (20.0)	148.2 (26.2)	289.3 (28.2)	30.2 (15.6)	187.9 (47.4)	0.0 (0.0)	296.2 (75.2)	523.4 (109.3)	450.8 (58.3)	383.6 (84.3)	225.8 (46.5)
INJURY BRUDEN (NUMBER OF DAYS WITH ICPR PER 1000H PER ATHLETE) (MEAN (SD))											
Total	285.6 (619.6)	284.1 (511.2)	286.2 (662.2)	107.9 (160.4)	112.3 (101.9)	304.1 (554.2)	118.9 (134.6)	519.5 (756.4)	478.7 (947.5)	227.5 (434.2)	153.4 (168.5)
Training	261.2 (634.6)	238.2 (420.8)	270.6 (706.0)	126.4 (205.1)	100.9 (102.4)	318.2 (557.2)	100.3 (135.2)	351.3 (520.8)	474.1 (1013.6)	195.6 (451.4)	109.4 (151.5)
Competition	336.7 (1038.2)	80.1 (251.9)	441.5 (1208.6)	50.2 (150.5)	142.0 (231.2)	0.0 (0.0)	260.9 (776.7)	0.0 (0.0)	654.2 (1636.9)	267.3 (457.9)	388.5 (802.8)
TIME TO FIRST ICPR (WEEKS) (MEAN (SD))											
Total	12.4 (10.4)	11.9 (8.5)	12.5 (11.0)	14.4 (8.7)	15.9 (10.6)	11.5 (14.8)	11.5 (12.1)	10.3 (9.3)	11.1 (11.0)	11.0 (7.9)	13.8 (11.1)
Training	13.2 (10.5)	12.6 (8.5)	13.3 (11.1)	15.5 (9.7)	18.0 (10.5)	11.5 (14.8)	9.7 (10.1)	13.3 (6.9)	12.5 (11.4)	9.8 (8.5)	14.3 (12.0)
Competition	19.3 (12.2)	10.0 (6.5)	21.2 (12.4)	10.0 (0.0)	26.3 (12.9)		22.0 (11.8)	1.0 (0.0)	16.3 (12.8)	14.5 (2.1)	23.6 (13.3)

an ICPR. This is comparable to the results from Carragher et al. (4) in youth and junior athletics athletes (8.4%) and from Clarsen et al. (5) in Olympic athletes (9.8%). Interestingly, these rates are lower than those seen in recreational runners (14.1% for overuse and 7.9% for acute injuries) (11). There are, to our knowledge, no other studies in athletics reporting such information. We think that this information is of great interest to show the extend of the injury problem in a population.

The incidence of ICPR was higher than in previous epidemiological studies in athletes: 8 compared to about 3-4 per 1000 hours of practice (2, 4, 6, 7, 9, 12, 13, 14). Methodological differences between studies (e.g., injury definition, data collection) could explain this difference or the decision to include only data for the full responders. Future research on the relevance of response rates on incidence estimations are needed.

The injury burden has been described for the first time here in an epidemiological study on athletics over a season (10). This can be an interesting parameter to show the extend of the injury problem by presenting the impact of the negative consequence of an injury (i.e., number of days of ICPR in our study, or number of days of absence in sport in other studies) (1). ›

Table 2

The characteristics (mode of onset and location) of "injury complaint leading to participation restriction" according to discipline and sex.

	TOTAL			EXPLOSIVE		MIDDLE- AND LONG-DISTANCES TRACK RUNNING		ROAD RUNNING		TRAIL	
	TOTAL N (%)	F N (%)	M N (%)	F N (%)	M N (%)	F N (%)	M N (%)	F N (%)	M N (%)	F N (%)	M N (%)
TOTAL	127 (100.0)	27 (21.3)	100 (78.7)	10 (7.9)	18 (14.2)	5 (3.9)	22 (17.3)	6 (4.7)	39 (30.7)	6 (4.7)	21 (16.5)
SUDDEN	44 (34.6)	10 (7.9)	34 (26.8)	6 (4.7)	2 (1.6)	0 (0.0)	10 (7.9)	2 (1.6)	12 (9.4)	2 (1.6)	10 (7.9)
Upper limbs	2 (1.6)	0 (0.0)	2 (1.6)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.8)	0 (0.0)	1 (0.8)	0 (0.0)	0 (0.0)
Trunk (lumbar)	1 (0.8)	0 (0.0)	1 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Pelvic, hip & groin	4 (3.1)	1 (0.8)	3 (2.4)	1 (0.8)	0 (0.0)	0 (0.0)	1 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	2 (1.6)
Hamstring	3 (2.4)	0 (0.0)	3 (2.4)	0 (0.0)	1 (0.8)	0 (0.0)	1 (0.8)	0 (0.0)	1 (0.8)	0 (0.0)	0 (0.0)
Quadriceps	3 (2.4)	0 (0.0)	3 (2.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (1.6)	0 (0.0)	1 (0.8)
Knee	8 (6.3)	3 (2.4)	5 (3.9)	1 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.8)	3 (2.4)	1 (0.8)	2 (1.6)
Lower leg	5 (3.9)	2 (1.6)	3 (2.4)	2 (1.6)	1 (0.8)	0 (0.0)	2 (1.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Achille tendon	4 (3.1)	0 (0.0)	4 (3.1)	0 (0.0)	0 (0.0)	0 (0.0)	2 (1.6)	0 (0.0)	2 (1.6)	0 (0.0)	0 (0.0)
Ankle	12 (9.4)	3 (2.4)	9 (7.1)	2 (1.6)	0 (0.0)	0 (0.0)	2 (1.6)	0 (0.0)	2 (1.6)	1 (0.8)	5 (3.9)
Foot	2 (1.6)	1 (0.8)	1 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.8)	1 (0.8)	0 (0.0)	0 (0.0)
GRADUAL	79 (62.2)	17 (13.4)	62 (48.8)	4 (3.1)	16 (12.6)	5 (3.9)	11 (8.7)	4 (3.1)	25 (19.7)	4 (3.1)	10 (7.9)
Upper limbs	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Trunk (lumbar)	1 (0.8)	0 (0.0)	1 (0.8)	0 (0.0)	1 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Pelvic, hip & groin	7 (5.5)	3 (2.4)	4 (3.1)	0 (0.0)	1 (0.8)	2 (1.6)	1 (0.8)	1 (0.8)	2 (1.6)	0 (0.0)	0 (0.0)
Hamstring	13 (10.2)	5 (3.9)	8 (6.3)	1 (0.8)	4 (3.1)	1 (0.8)	0 (0.0)	0 (0.0)	3 (2.4)	3 (2.4)	1 (0.8)
Quadriceps	4 (3.1)	2 (1.6)	2 (1.6)	2 (1.6)	1 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.8)	0 (0.0)	0 (0.0)
Knee	10 (7.9)	1 (0.8)	9 (7.1)	0 (0.0)	1 (0.8)	1 (0.8)	2 (1.6)	0 (0.0)	5 (3.9)	0 (0.0)	1 (0.8)
Lower leg	19 (15.0)	5 (3.9)	14 (11.0)	1 (0.8)	3 (2.4)	0 (0.0)	3 (2.4)	3 (2.4)	6 (4.7)	1 (0.8)	2 (1.6)
Achilles tendon	7 (5.5)	0 (0.0)	7 (5.5)	0 (0.0)	2 (1.6)	0 (0.0)	1 (0.8)	0 (0.0)	2 (1.6)	0 (0.0)	2 (1.6)
Ankle	5 (3.9)	0 (0.0)	5 (3.9)	0 (0.0)	1 (0.8)	0 (0.0)	1 (0.8)	0 (0.0)	1 (0.8)	0 (0.0)	2 (1.6)
Foot	13 (10.2)	1 (0.8)	12 (9.4)	0 (0.0)	2 (1.6)	1 (0.8)	3 (2.4)	0 (0.0)	5 (3.9)	0 (0.0)	2 (1.6)
MISSING	4 (3.1)	0 (0.0)	4 (3.1)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.8)	0 (0.0)	2 (1.6)	0 (0.0)	1 (0.8)

We used two ways of calculation: 1) for a group the total number of days with ICPR divided by the total athletics practice x 1000, or 2) at the individual level of an athlete we calculated the total number of days with ICPR divided by the total athletics practice x 1000 and then we calculated the mean and SD per group. Further studies are needed to determine if one method is better than the other.

The time to event is another relevant parameter, since it shows the time that an athlete can normally participate without any problem. This is a more 'positive' approach than injury burden. For athletes and coaches, such an approach analyzing how many they can train without any problem could probably be more attractive than looking at the missed day but should incorporate the training/competition load ideally on an individual base (8).

Some limitations should be acknowledged. The number of included athletes could be considered as small. However, we only used data for athletes who provided 100% of the weekly responses in order to ensure data quality, which can explain this number of included athletes in comparison to the total of included athletes in the "PREVATHLE" RCT at 391 athletes (10). This small sample of athletes does not allow us to perform comparative analyses according to sex and disciplines. The type of injury or a clear diagnosis was not available as these were self-reported injuries without examination and diagnosis by a health professional.

As practical implications, we suggest that since such weekly injury complaint monitoring is feasible in athletics, it should be done as a routine by medical teams, as well probably by coaching staff, to better understand the injury problem of their athletes and to adapt at short- and long-term their training.

In conclusion, this present epidemiological study describes in detail the epidemiology of ICPR in athletics athletes over one whole athletics season. It represents an additional piece to better understand the extend of injury problems in athletics.

Conflict of Interest

The authors have no conflict of interest.

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Ethics Approval

In the present study, we used data from a randomized controlled trial that was approved by the Committee for the protection of persons (CPP Ouest II-Angers, number: 2017-A01980-53), and was registered in the ClinicalTrials.gov (ClinicalTrials.gov Identifier: NCT03307434).

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