

# Effects of a Brief Mindfulness and running programs on mindfulness skills and well-being among trained runners

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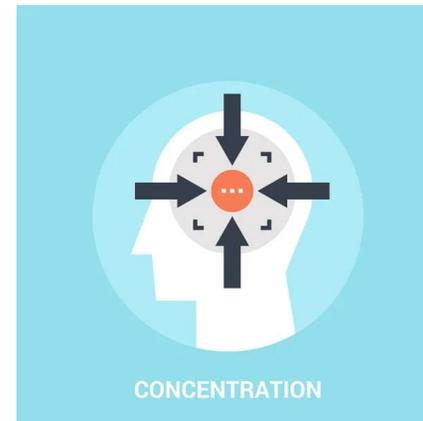
**EUROPEAN COLLEGE  
OF SPORT SCIENCE**

***FEELTHERUN PROJECT***

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# Potential Benefits of Mindfulness in Sport

- Athletes sometimes experience disruptive thoughts and feelings in training and competition
- They can hardly focus on their goals or sensations
- Mindfulness-based interventions (MBI) can help to:
  - develop attention and emotion regulation
  - decrease anxiety
  - increase well-being



# Benefits of Mindfulness in sport

- Recent studies have shown that MBI **improves mindfulness skills** in athletes (Altinyelken et al., 2020; Doron et al., 2020; Goisbault et al., 2022 ).

		AWARENESS	ACCEPTANCE	REFOCUSING
Doron et al., (2020)	Badminton	↗	NS	NS
Goisbault et al., (2022)	Baskett-ball	NS	↗	NS
Tebourski et al., (2022)	Table tennis	NS	NS	↗

- Among long-distance runners, a recent meta-analysis demonstrated the benefits of MBI for increasing **well-being** (Myall et al., 2023).
- Runners could benefit from refocusing in high-intensity training sessions by reducing unintentional mind-wandering (Salmon et al., 2010)

# Limitations of Current Mindfulness-based Interventions

- MBI interventions usually proposed:
  - long mindfulness sessions times
  - low-intensity endurance training (e.g., Ullrich-French & Cox, 2021) .
- Well-designed randomized controlled trial mindfulness interventions are required to be confident in these results

# The Novelty of the Present Intervention

- **Brief** session time (max 30 min) for 8 weeks
- It was built in **high-intermittent interval training (HIIT)** that can lead to unpleasant and negative experiences.
- It was a **randomized controlled trial** with follow the CONSORT guidelines.
- The trained runner **sample was** relatively **large**
- It was implemented **into the running training session**

# Main Hypothesis

Runners of the MBI group (in contrast to the control) will demonstrated increased mindfulness skills and well-being.



# Modules of the “FeeltheRun” programme

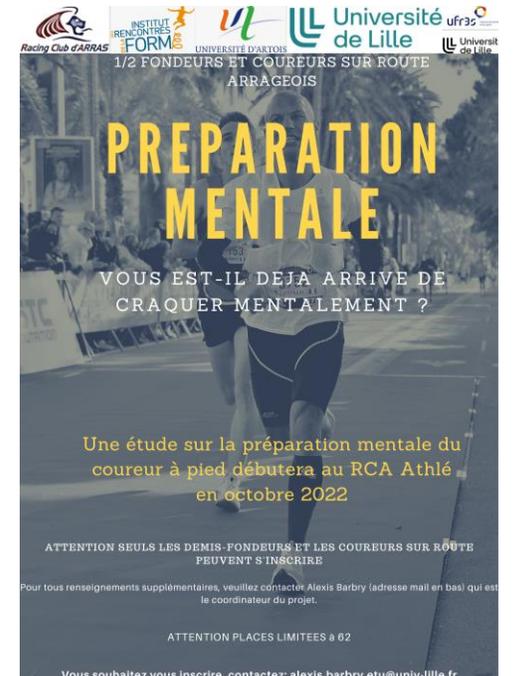
Module 1:  
**PSYCHOEDUCATION**

Module 2:  
**GOAL SETTING**

Module 3:  
**AWARENESS**

Module 4:  
**ACCEPTANCE**

Module 5:  
**REFOCUSING**



(Based on Doron et al., 2020; Goisbault et al., 2022)

# Content of the FeeltheRun programme for experimental group

<b>MODULE</b>	<b>WEEK</b>	<b>GOALS</b>
<b>PSYCHOEDUCATION</b>	<b>1</b>	Learning about their mental functioning.
<b>GOALS SETTING</b>	<b>2</b>	Promoting engagement and setting up <b>SMART goals</b> related to running.
<b>AWARENESS</b>	<b>3-4</b>	Raising awareness of <b>sensations, thoughts, emotions,</b> and <b>distractions</b>
<b>ACCEPTANCE</b>	<b>5-6</b>	Acceptance of <b>discomfort</b> during <b>intense exercise</b>
<b>REFOCUSING</b>	<b>7-8</b>	Construct a <b>routine to refocus</b> after distractions.

# Content of Control Group Materials

Sports Nutrition



Muscular strengthening  
for runners



Drills runners



Stretching for  
Runners



Introduction to  
relaxation



Shoes with  
carbon blade



# Methodology

## Participants

- Mindfulness group: N= 30 ; Age = 41.1 years  $\pm$  14.5 ;
- Control Group: N= 25; Age = 42.2 years  $\pm$  14.8

## Procedures

- 8 weeks MBI (mindfulness based intervention) incorporated into running program
- Mindfulness and well-being measures:
  - baseline
  - after 4 weeks
  - after 8 weeks

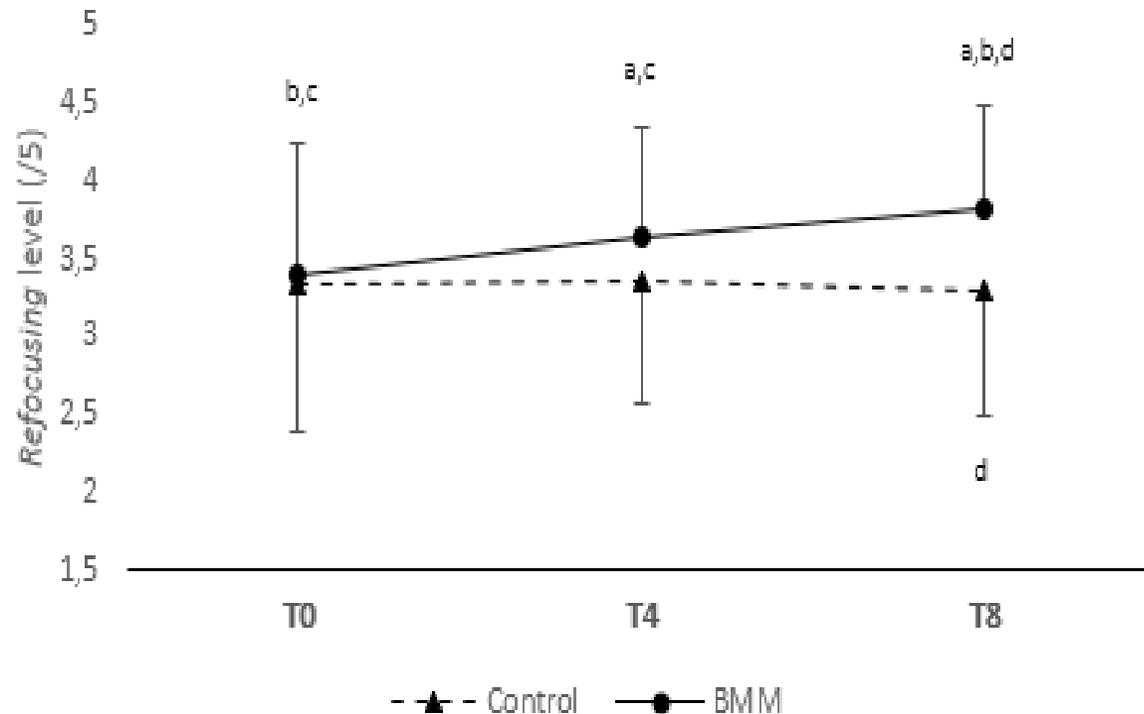
## Instruments (all alphas > 0.70)

- Mindfulness Inventory for Sport (MIS, Thienot et al., 2014)
- Well-being (Diagnofeel, Barbry et al., 2021; Carton & Fruchart, 2015)
  - Manifestations of well-being
  - Regulation of well-being (through social support, seeking pleasure, physical activity, problem-solving, distancing, and isolation)



# Results: Mindfulness - Refocusing

Refocusing over time and group

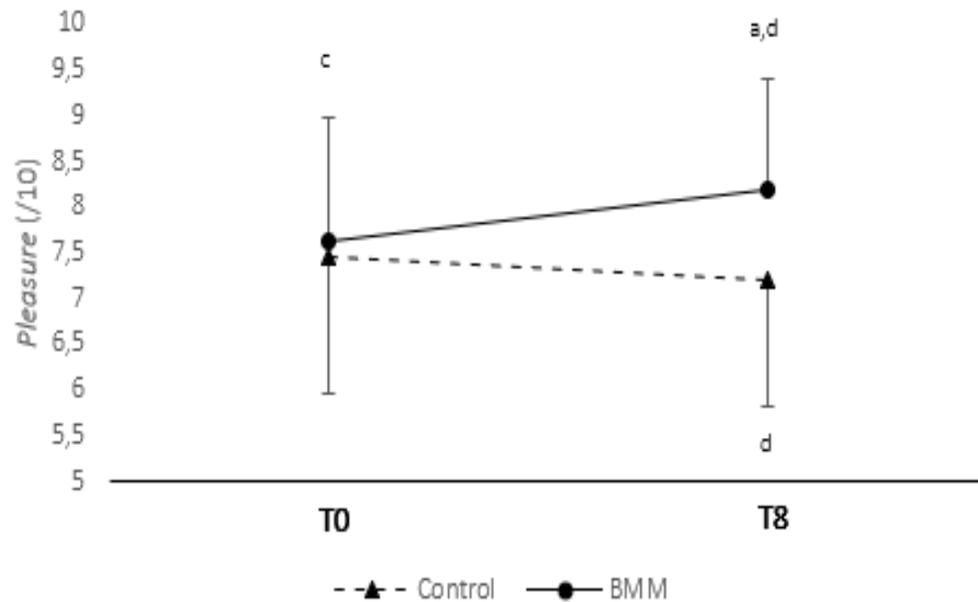


Refocusing: Time\*Group interaction:  
 $F(1.57)=4.05, p=0.03, \eta^2=0.07, d=0.72.$

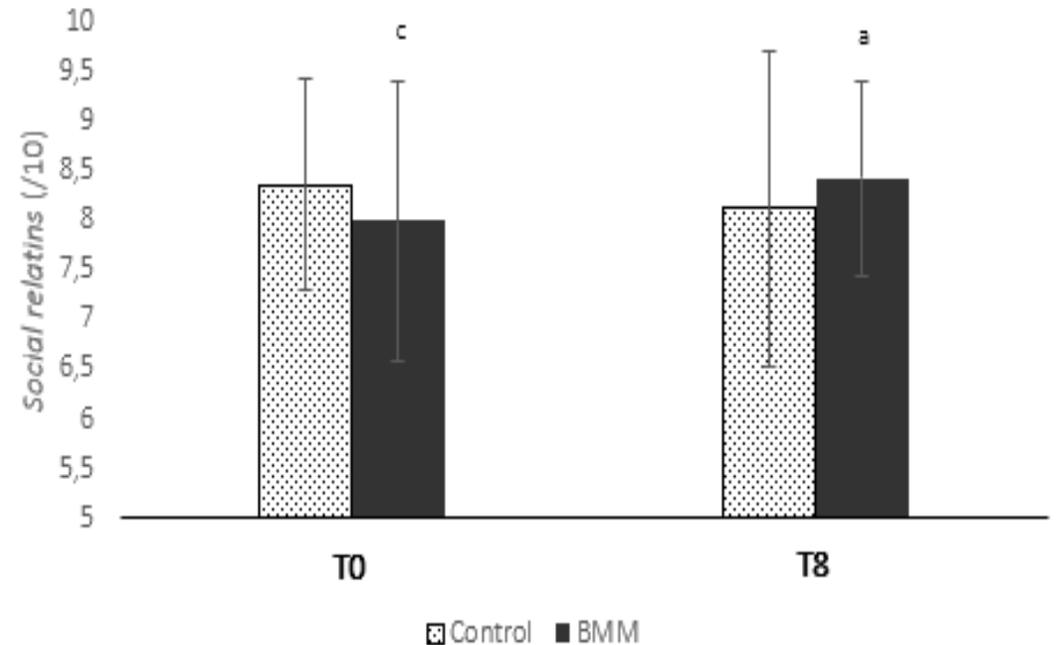
**LEGENDS.** <sup>a</sup>significantly different from T0 ( $p \leq 0.05$ ), <sup>b</sup>significantly different from T4 ( $p \leq 0.05$ ), <sup>c</sup>significantly different from T8 ( $p \leq 0.05$ ), <sup>d</sup>intergroup differences ( $p \leq 0.05$ ), baseline (T0), 4 (T4) and 8 weeks (T8).

# Results for Well-being

## Pleasure (regulation) over time and group



## Social relations over time and group



time\*group interaction  $F(1) = 4.35$ ;  $p = 0.04$ ,  $\eta^2 = 0.08$ .

time\*group interaction  $F(1) = 4.97$ ;  $p = 0.03$ ,  $\eta^2 = 0.09$

**LEGENDS.** <sup>a</sup>significantly different from T0 ( $p \leq 0.05$ ), <sup>b</sup>significantly different from T4 ( $p \leq 0.05$ ), <sup>c</sup>significantly different from T8 ( $p \leq 0.05$ ), <sup>d</sup>intergroup differences ( $p \leq 0.05$ ), baseline (T0), 4 (T4) and 8 weeks (T8).

# Discussion

- **Main results:** Participants in the intervention group benefitted from refocusing for mindfulness skills, and pleasure, social relations for psychological well-being.  
However, they did not show other mindfulness and well-being-related benefits
- Several **strengths of the present methods** can be mentioned: randomized controlled trial (RCT) following consort guidelines, active control group, high-intensity training.
- **Main limitations:** no qualitative measurement. No control when runners were not present at training session, that those performed the running trainings prescribed by the coaches.

# Thank you!

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