

Training program based on ACT & Mindfulness to improve performance and well-being in kickboxing fighters



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Abstract

One of the purposes and challenges of science is to improve the quality of life of people. For years, strategies have been implemented in other fields, such as sports, with promising results. The aim of the present study was to examine the efficacy of a training program based on Acceptance and Commitment Therapy (ACT) and Mindfulness, to improve well-being and performance in kickboxing fighters.

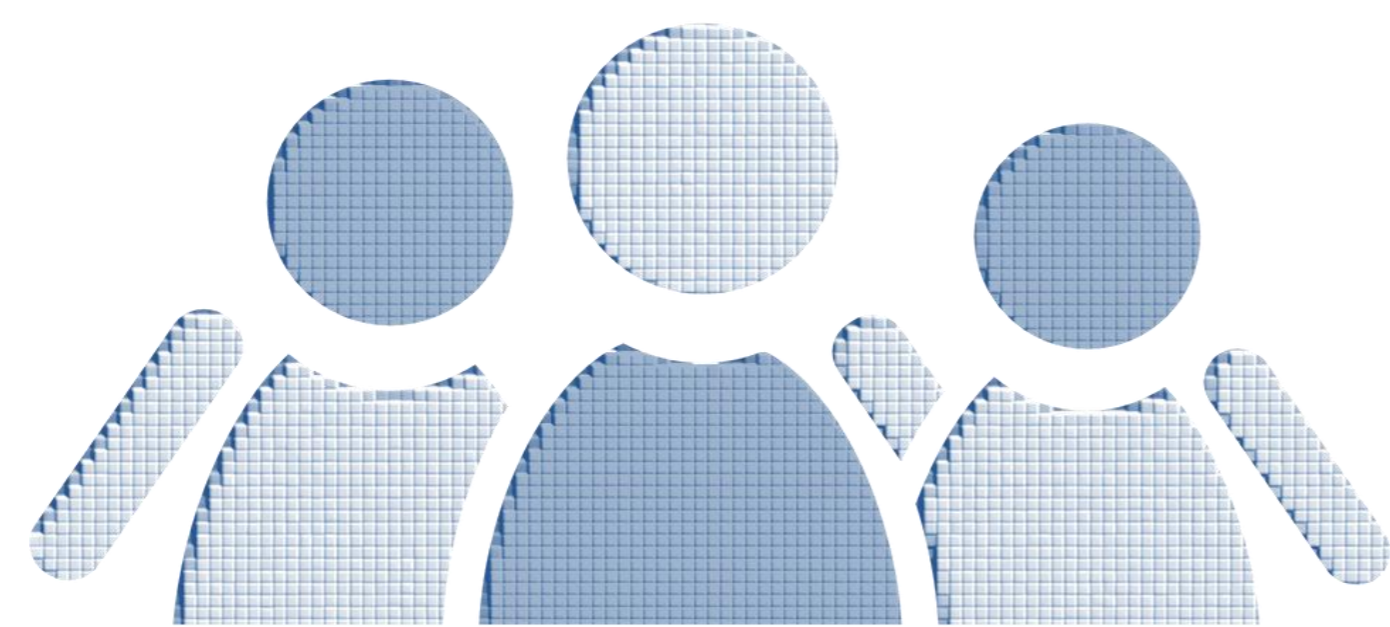
Introduction

The field of sports psychology has focused for providing tools to generate in the athletes an improvement of their performance. Traditionally, these tools came from the Cognitive-Behavioral Psychological Approach. And whose purpose is to create an ideal state of performance, by controlling, reducing or eliminating negative private events. Known in the sports field under the name of "Mental Training," "Psychological Skills" (Vealey, 2007). However, one limitation of these psychological strategies is that attempts to control, reduce, or eliminate private events paradoxically produce, and in many cases, the opposite result (see Purdon 1999, Rassin, Merckelbach and Muris 2000, Gutiérrez, Luciano, Rodríguez and Fink, 2004). As an alternative, this research proposes the improvement of the sport performance based on mechanisms such as psychological flexibility.

Method

Participants

- 10 Kickboxing Fighters.
- Average Age: 17
- 6 Male
- 4 Female



Instruments

- SAS-2:** The Sport Anxiety Scale (Smith et al., 2006).
- AAQ-II:** Acceptance and Action Questionnaire (Bond et al., 2011).
- MAAS:** Mindful Attention Awareness Scale (Brown & Ryan, 2003).

Procedure

ACT intervention was delivered using an adaptation of "two-plus-one" format (Barkham & Shapiro, 1990). Hence, each fighter attended four sessions. Three of which were on consecutive weeks and the last one was after two weeks. The duration of the sessions was two-hour of training each session.

Individual ACT training protocol (J.J Macías 2016)

- ACT training benefits**
- Brief description of the **six core processes**.
- How does the mind work?. Language, culture and suffering.**
- Control as the Problem.** Exercises: "Pink Elephant", "Forget the numbers: 1,2,3".
- Self as Context.** Metaphor: "Chessboard", "The radio", "Thank your mind".
- Functional Analysis.**
- Creative Hopelessness.** Methapors: "Quicksands", "Video: "The fly meditation".
- Values Clarification and Commitment.** Methapors: "Birth" and "Garden".
- Present Moment.** Exercise: "Body Scan".
- "Perspective-Taking"** (Hierarchical and distinction deictics). Exercise: "Physicalization".
- Home practice assignments** (every day): Attention to the breathing 10 minutes; Mindfulness in daily life: eating, driving...etc and physicalization.

Results

Figure 1. Control Group

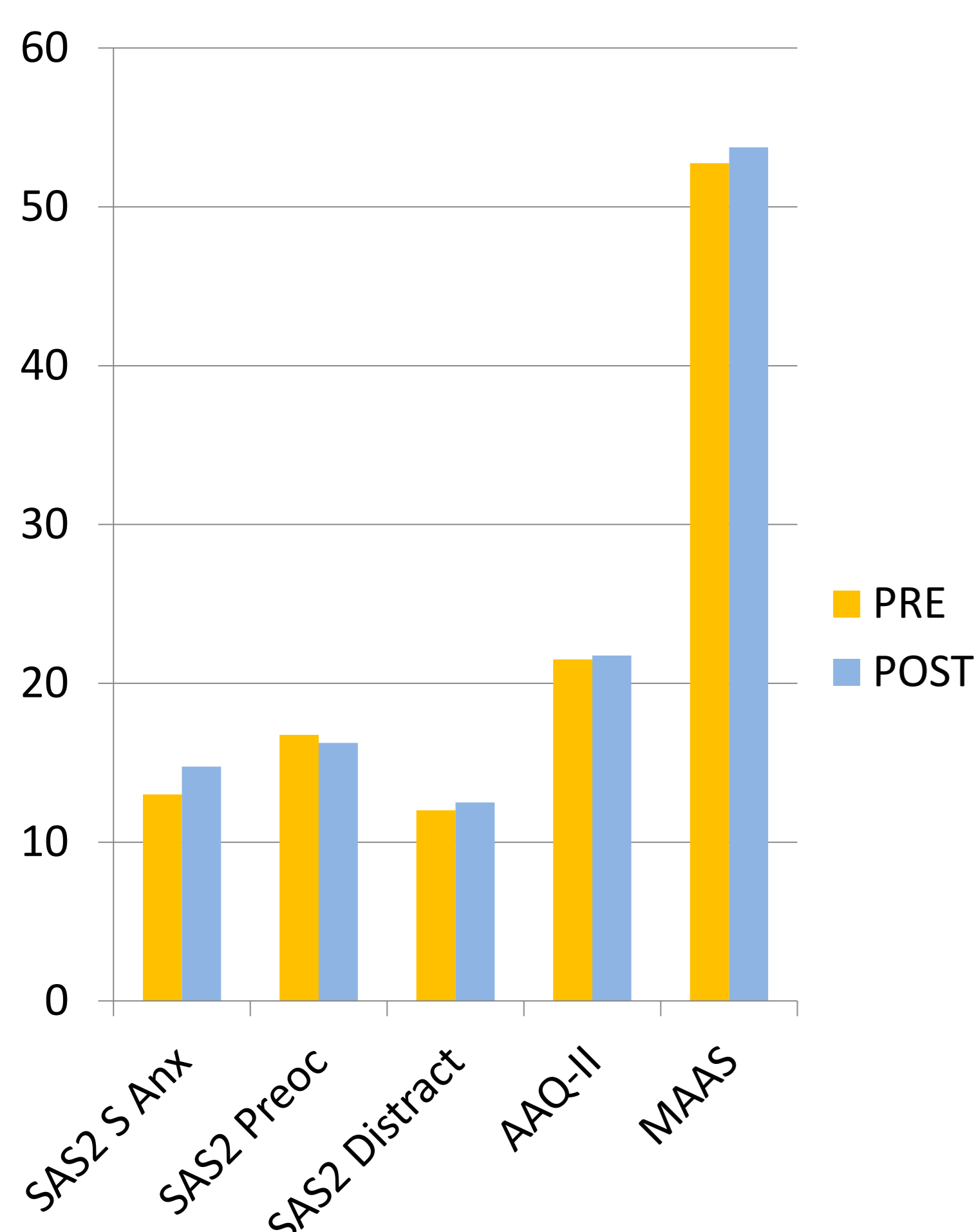


Figure 2. Experimental Group

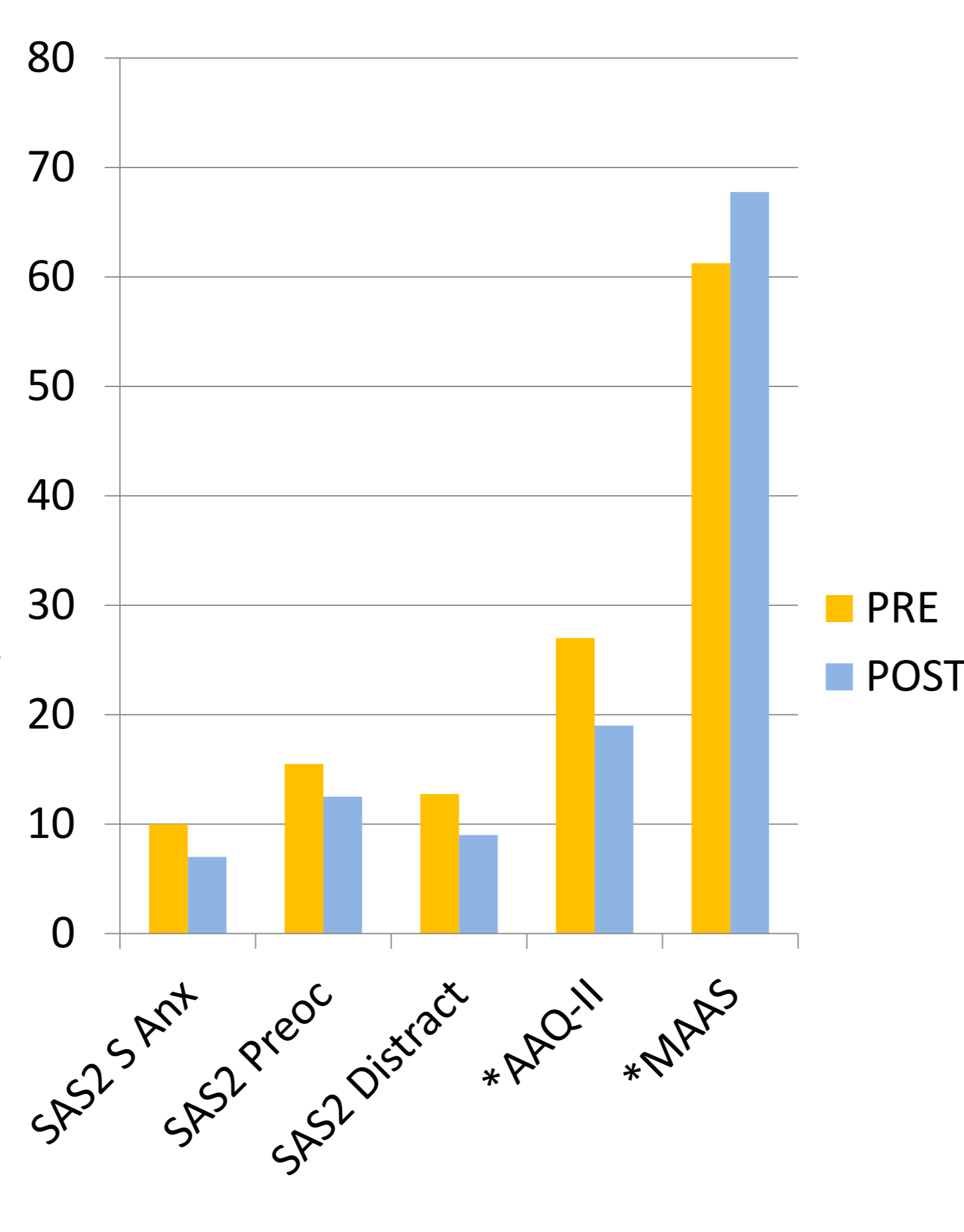


Table 2 Student's t-test of the pre-post differences in the control and experimental group for Acceptance, Somatic Anxiety, Preoccupation, Distraction and Mindful Attention Awareness Scale

	Control Group				Sig.	Experimental Group				Sig.
	PRE		POST			PRE		POST		
	\bar{X}	DT	\bar{X}	DT		\bar{X}	DT	\bar{X}	DT	
AAQ-II	21,50	10,87	21,75	11,55	,930	27,00	9,34	19,00	5,59	,026*
SAS-2	13,00	2,44	14,75	4,11	,133	10,00	4,08	7,00	0,81	,231
Somatic Anxiety										
SAS-2	16,75	3,86	16,25	4,34	,391	15,50	1,91	12,50	3,31	,324
Preoccupation										
SAS-2	12,00	1,82	12,50	2,51	,495	12,75	2,50	9,00	1,15	,122
Distraction										
MAAS	52,75	9,70	53,75	8,05	,584	61,25	10,50	67,75	10,75	,049*

Note: * $p < .05$

Conclusion

- Training based on psychological flexibility can enhance the psychological state of athletes (Gardner and Moore, 2004, Ruiz, 2006, Lutkenhouse, 2007, Ruiz and Luciano, 2009, Rodríguez, 2009, Fenoy, 2012).
- ACT and Mindfulness can be used in combination to increase psychological flexibility.
- The results obtained in this intervention show that ACT and Mindfulness, can be useful to improve psychological performance and well-being in athletes.
- Although there is a slight tendency to be significant if we increase the sample, we can not confirm that our intervention is useful for reducing anxiety and that the mechanisms of change are psychological flexibility.
- For future interventions, the number of the sample will be increased and other measures will be used.

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