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IMAGERY AS A TECHNIQUE TO IMPROVING SELF-EFFICACY. A CASE REPORT IN ACL REHABILITATION

Castenetto M¹, Ciceri MR¹, Danelon F², Boldrini L²

¹Psychology of Communication LAB, Cattolica S.C. University, Milan, Italy - ²Isokinetic Medical Group, FIFA Medical centre of Excellence, Milan, Italy

Introduction

Injury may lead to interruption of sports activities for a time that depends on the physiological healing of the injury, the age of the athlete, the ability to manage the uncertainty over the date of return and the motivation to continue despite the possibility of having unclear seasonal goals.

A fundamental role among psychological factors impacting rehabilitation after injury is played by flow (the athlete's ability to enter an optimal state of consciousness characterized by deep concentration, usually related to optimal sport performance) and self-efficacy (the belief of being more or less able to enact the athletic tasks). The purpose of this case report, which represents a pilot study conducted on a football player after ACL reconstruction, consists in demonstrating the efficacy of the imagery process in the improvement of the athlete's flow and self-efficacy. Imagery (1) is an ability of our mind to simulate objects, events and actions within it, making it an almost sensorial and almost perceptual experience that occurs in the absence of an external stimulus condition.

Specifically, the study aims to determine the effectiveness of imagery for managing the training suspension period in preparation for returning to training.



Methods

The 23 years old male amateur midfielder had surgery on his LCA on January 31, 2017 after being injured one month before during a football match. Just before returning to football training with his team, at the end of his rehabilitation on November 2017, he followed a psychological course of six meetings for 60 minutes each over 2 months with multiple purposes, that were: mentally preparing the athlete and allowing him to empower his own skills, and improving the self-efficacy. Moreover, the course included positive internal dialogue, emotional arousal management and goal setting. Imagery training consisted at first, to let the subject experience a visualization aimed at reliving the flow experience, a successful performance in his sport, with particular attention to the final result. In a second visualization the athlete is guided to see and try training on the football field, recalling the sensorial perceptions and positive emotions of his sport. The tests used before and after the imagery training were Flow State Scale (2) to understand how the different imagery experiences were perceived, and ACL-RSI (3) to evaluate self-efficacy.

Results

The flow profile of the participant appears generally consistent across the three conditions, with slight improvements after the treatment. We can consider the result as positive because the post-treatment imagery scores are similar to the scores experienced in the visualization of optimal performance (flow) (Figure 1). Self-efficacy measured with ACL-RSI test before treatment 77,5%, and after treatment 88,3%, shows a clear improvement in the second condition (Figure 2).

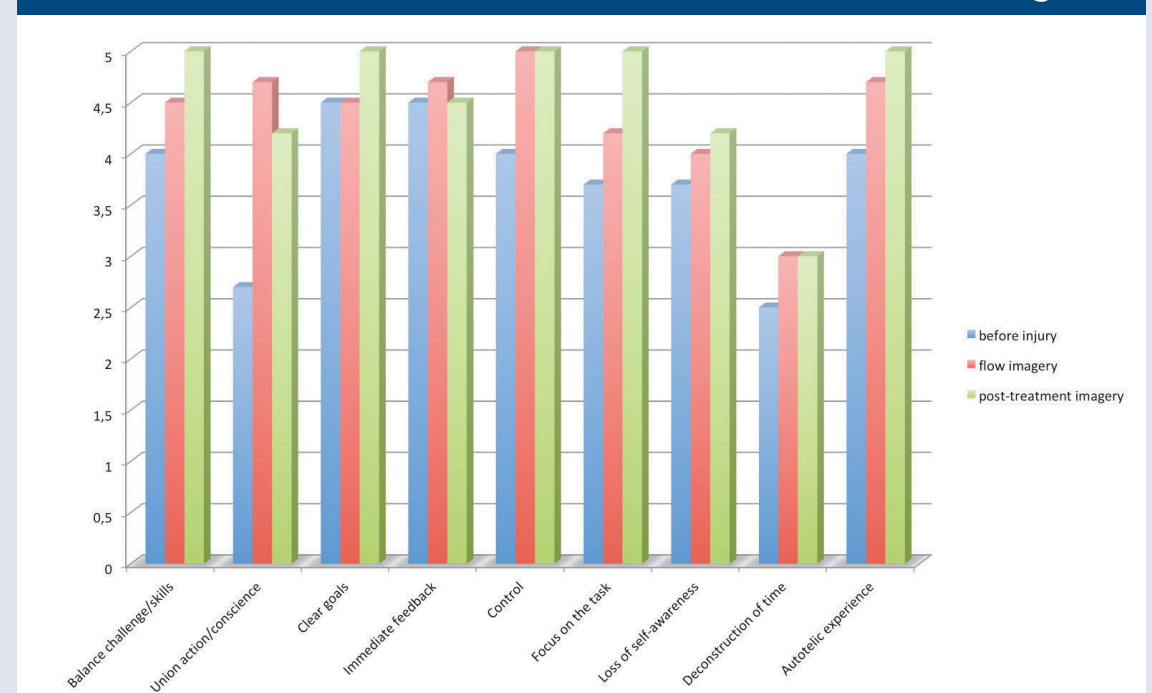
Conclusions

The results have shown that the participant maintained a consistent proneness to flow experience in the imagery sessions, with slight improvements in the post-treatment imagery. Also self-efficacy shows an improvement of 10,8% after treatment. Moreover the athlete liked the imagery experience and the techniques used. Further research on representative samples is needed to explore the effectiveness of the imagery treatment for flow and self-efficacy in injured athletes.

References

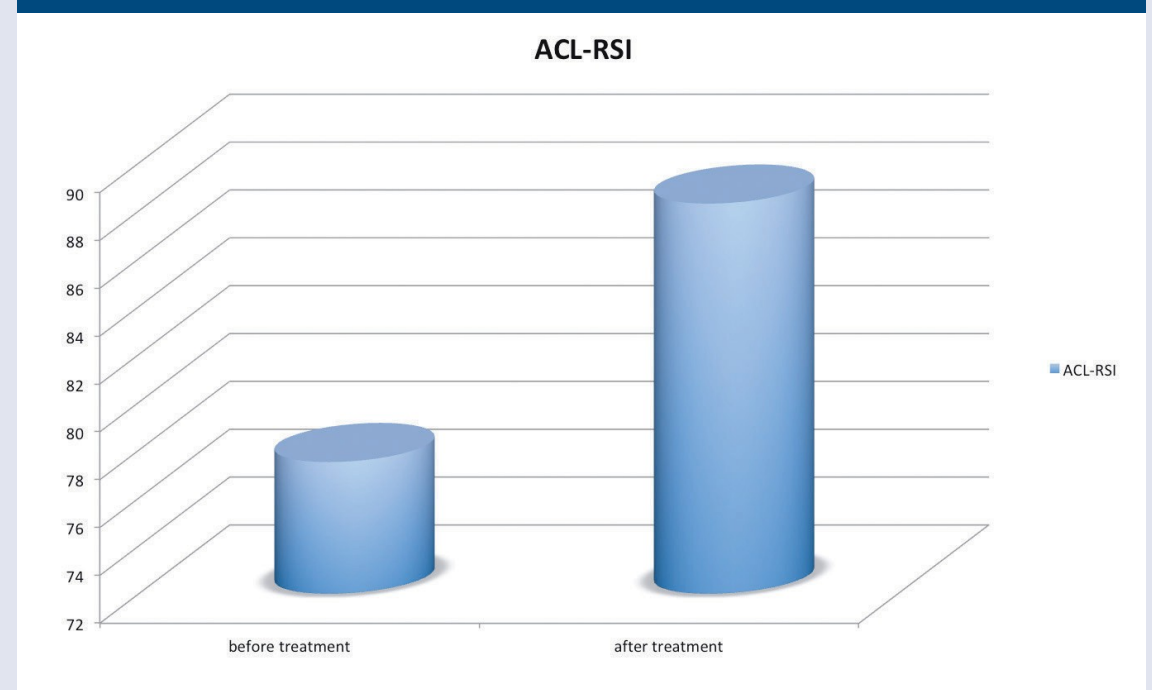
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Figure 1



Participant's results at the flow state scale (nine subcomponents) across three conditions (thinking of match before injury, optimal experience imagery, post-treatment imagery).

Figure 2



Participant's result at the ACL-RSI test before and after treatment.