

Mindfulness Training with a Fencing Athlete Who Was Troubled by an Uncharacteristic Inability to Perform Well Competitively: A Case Report

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ABSTRACT

Positive thinking is one of the psychological skills that mental training programs aim to help athletes cultivate in order to enhance performance. It has been noted, however, that some athletes do not find positive thinking effective for that purpose. This case report describes a fencing athlete who used positive thinking to cope with negative ruminations prior to a competition and then stopped using positive thinking and engaged in mindfulness. As a result of applying mindfulness, the patient developed the ability to take part in competitions without obsessing and without negative ruminations. These findings show the importance of assessing, in detail, how the psychological skills training used with athletes is affecting their cognition, behavior, and performance and of implementing appropriate interventions based on these assessments.

Key words athletes; mindfulness; performance; positive thinking

An athlete's psychological state is known to affect their competitive performance. As such, numerous mental training techniques have been developed that aim to enhance that performance.¹ Conventional forms of mental training involve what is known as "psychological skills training" (PST). The fundamental aspect of PST is that the reduction in negative emotions and bodily states and the associated increases in positive cognitions and confidence levels are directly related to an "ideal performance state," which in turn is directly related to optimal athletic performance.² A technique among PST is positive thinking. Positive thinking refers to the practice of thought (a) that allows the thinker to interpret a stressor as something beneficial to the self and (b) use it to establish motivation and will for a bout, boost

their confidence, and attain an optimal state of tension/nervousness and (c) that brings their state of arousal to an optimal level, thus increasing concentration and (d) that positively affects their performance.³

From the cognitive therapy approach perspective,⁴ in the context of athletic performance, positive thinking is a technique that allows athletes in competitive situations to reduce anxiety and increase confidence by recognizing negative mindsets and transforming them into positive ones through cognition with positive content. However, previous studies suggest that reduction in "negative" affective states, such as anxiety, and/or increases in self-confidence do not consistently result in significant increases in athletic performance.^{5, 6} In addition, although positive thinking techniques are used widely in sports, it is not, as has been found, an effective technique for all athletes.^{7, 8} The reason for this is that the way of thinking and creating awareness differs for each individual athlete, whether it is positive or not, and some athletes feel that thinking itself is not good for performance exertion.¹

The mindfulness acceptance-commitment-based approach (MAC) represents one contemporary school of thought on how to boost an athlete's competitive performance.⁹ MAC is adapted from a clinical model of acceptance and commitment therapy and mindfulness-based cognitive therapy for use with athlete populations.^{10, 11} MAC is unique as it does not focus on transforming the cognitive content of the individual as in PST, but rather it promotes acceptance of internal experiences and aims for functional transformation of cognitions. "Mindfulness," an important skill in MAC, refers to the psychological process of bringing attention to the things themselves that are before us and what we are experiencing in the present moment and continually heightening our present-moment awareness.¹² This mindfulness-based intervention has demonstrated a wide range of benefits, including prevention of depression and reduction of depression recurrence and anxiety.^{13, 14} On the other hand, although the effects on athletes have been verified and certain effects on athletic performance have been observed,¹⁵ studies in the Japanese context on this subject are notably scarce.¹⁶

In this case report, I describe how I used

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Received 2023 March 7

Accepted 2023 April 7

Online published 2023 April 26

Abbreviations: GHQ-30, the 30-item general health questionnaire; MAAS, mindful attention awareness scale; MAC, mindfulness acceptance-commitment-based approach; PST, psychological skills training

mindfulness training to help a fencing athlete who, despite using positive thinking techniques, was troubled by inability to perform in competition to the full extent of his ability, which he had demonstrated previously.

PATIENT REPORT

Patient: Male. High school student.

Type of sport: Fencing.

Chief complaint: Inability to perform at his previous high level because of nervousness prior to a bout.

Family history: No history of medical examinations for mental disorders.

Medical history: No noteworthy past illnesses.

History of current illness: No noteworthy development problems.

He took up fencing when he was in the lower grades of elementary school. He has taken part in numerous competitions and received numerous awards.

In Year X-1 (X being the year in which he first came to our medical institution for consultation), he began to frequently hold training camps with other powerful teams at the behest of his team. Later, he had increased opportunities to practice with stronger and more highly skilled players. In fencing against other members of the training camp, he always lost. From around the time he began participating in these training camps, he came to feel intense pressure "not to lose out to an opponent."

He felt that the players with strong performance were skilled at adopting a positive mindset before a bout and adjusting their mindsets if they lost. The training camp that was scheduled to take place immediately before he visited our medical institution was canceled. He was scheduled to attend a lecture on sports psychology at that camp and wanted to discuss how to get into the game and change his mind before entering the game. However, when the training camp was cancelled, he decided to consult with the Tottori University Hospital Sports Medical Center about his own mental issues.

Interview structure

I am a certified public psychologist and clinical psychologist and was placed in charge of providing him with psychotherapy services using a cognitive behavioral therapy approach. The sessions were held in a consultation room at a university hospital. Each psychotherapy session was from 50 minutes to one hour, and information was shared with the physician in charge when needed. An intake interview was conducted, and he expressed his wish to undergo counseling up to and around the championships to be held in a month later. Session 1 and 2 were held at two-week intervals, and

session 2 to 3, at four-week intervals. All the counseling sessions were paid for by him at his own expense.

In order to protect the patient's personal information, this report has been modified to the extent that it does not affect the main purpose of the report.

Course of treatment

Direct quotes from patient are enclosed in double quotation marks ("..."), cognitions are enclosed in sets of double quotation marks ("..."), the therapist is shown as "Th," homework is abbreviated to "HW," and the interview session numbers are preceded by the pound sign ("#").

1. Formulation of the case and setting goals (#1)

He explained that in a fencing bout, the results are determined within seconds, so how one begins a bout is crucial. He added that he was having trouble with negative ruminations before starting a bout, specifically involving the cognition that he "might lose." He reported that he was attempting to use cognitive coping, a form of positive thinking that involves cognitions such as "I will win" and "I can win." However, when asked about a recent method that he used to preparing himself for a bout successfully, he talked, "Although I was feeling pressure and nervousness at the time, I was able to concentrate on the things I had to do without being overwhelmed by them." When asked if he had been engaging in cognitive coping before bouts, he answered, "I think so, but I don't think I was doing it as consciously as I am now." The Th asked him to describe the state of being overwhelmed by a bout. After contemplating his response in silence, he said, "It might be where I become so distracted with trying to dispel the negative image that "I might lose" that I cannot concentrate during the bout."

The vicious cycle that he had fallen into is summarized and presented in the Assessment Sheet (Fig. 1). He tried to deal with the negative rumination that he "might lose a bout" by performing cognitive coping, mentally affirming that he "will win" and "can win." Yet, this strategy was unsuccessful, and he was going into bouts in a state characterized by inability to concentrate on the task at hand. As a result, he was losing bouts before being able to fully demonstrate his ability. He explained that in the vicious cycle that this state perpetuated, each such loss affected the subsequent bout.

It was thus possible that cognitive coping was not functioning effectively for him. On this basis, the Th established the following goals of assistance and shared them with him: to distance himself from the negative ruminations that he himself creates and change the

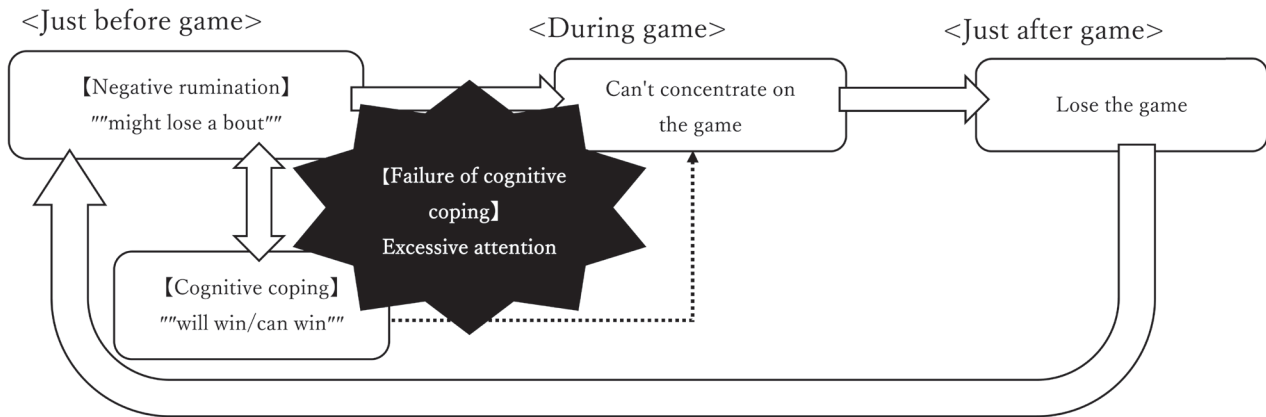


Fig. 1. Case formulation of the patient.

function of his cognition, and, by so doing, regain his ability to perform as usual during a bout. The Th also proposed mindfulness of the body and breathing to help him maintain a distance from his self-generated negative ruminations.¹⁷ This is a 10-minute meditation in a comfortable posture (sitting in a chair, zazen, etc.). It involves focusing one's attention on the breath and body and then returning to the now without judgment, even if various thoughts and feelings arise during meditation. He tackled these goals with the Th in #1, and his HW, which was to be self-monitored, was to carry out the mindfulness exercises once a day. He was asked to record the date, time, and content of his thoughts and impressions, and write them on the HW record sheet that the Th had created. He was asked to bring the sheets to the next counseling session.

In #1, the Th used the Japanese-language edition of the 30-item general health questionnaire (GHQ-30) to measure his general mental health,¹⁸ and the Japanese-language edition of the Mindful Attention Awareness Scale (MAAS) to measure the degree of his awareness of, and attention to, mindfulness.¹⁹ He scored a total score of 2 points on the GHQ-30, indicating that he has no mental health problems. He scored 52 points on the MAAS.

2. Implementation of cognitive behavioral therapy focusing on mindfulness (#2 and #3)

In #2, he said that his fencing practice time had increased because the championships were approaching. He was doing his mindfulness HW every day, and reported becoming increasingly aware of the variety of thoughts that came to mind in his everyday life. He also reported becoming able to tackle fencing itself with a state of higher concentration. For homework, the Th asked him to continue practicing the same mindfulness

of the body and breathing.

In #3, he talked about having lost in the championships. His opponent was someone with whom he had played often before. He said they had a 50% winning rate during bouts. He stated that he had been able to practice for the championship bout in a concentrated manner, without being overwhelmed by negative ruminations. During the bout itself, he had been able to put pressure on his opponent in the final minutes, but fell one step short of winning. He said that now that he had begun to implement mindfulness exercises into his daily life, his ability to concentrate on a daily basis had increased, and he was no longer feeling overwhelmed by negative ruminations prior to a bout. He revealed that he was considering continuing to tackle mindfulness on a voluntary basis. We ended the counseling sessions after confirming the effects gained by addressing the vicious cycle that had formed, as per his description during #1, and by working on his mindfulness.

MAAS was readministered in #3. He scored 62 points, up 10 points from #1. His HW completion rate was 87.9%.

DISCUSSION

The patient in this study stopped using positive thinking because cognitive coping with positive thinking was not effective for negative ruminations prior to the bouts. Mindfulness was then introduced, and the patient was able to go into the bouts without being preoccupied with negative ruminations.

Two effects would have acted on the patient's performance in this case. The first was the effect of stopping the use of positive thinking before the competition. The second was the effect of mindfulness. In the first, the patient was unable to concentrate on the competition because his attention was overly focused

on transforming negative cognitions into positive ones right before the competition. Therefore, by ceasing to use positive thinking, the amount of attention directed to cognition was reduced. However, it was thought that this alone could have led to a decrease in performance because the participants were stuck in negative ruminations, which increased anxiety and other negative emotions. Thus, it is believed that the mindfulness intervention helped him to distance himself from negative ruminations so that the patient could compete without being trapped by them.

The findings of this study suggest that traditional positive thinking alone might not enable a player to successfully enhance their performance. That being said, it must be kept in mind that the study does not necessarily show that positive thinking is ineffective in general. Positive thinking-type athletes have been found in desirable mental states,⁷ and many athletes boost their performance through positive thinking. What is important is that those providing athletes with support services assess in detail how the psychological skills training that individual athletes are undergoing is affecting their cognition, behaviors, and performance and that they implement interventions based on those assessments.

Mindfulness interventions with athletes have shown potential to contribute not only to enhancing competitive performance but also to guarding against mental health issues such as burnout, anxiety and depression.^{20, 21} It has been pointed out that some half of all top athletes active on the world stage have exhibited symptoms of mental health disorders²²; higher levels of depression and anxiety have been found among junior high school athletes compared to elementary and junior high school students that only participate in basic physical education.²³ Mindfulness is thus believed to constitute an important psychological support technique to facilitate athletes to optimize their performance well while maintaining favorable mental health.

This case report has several limitations. The patient's MAAS scores rose as a result of the mindfulness intervention, and his subjective problems were resolved. However, it is not clear whether and if so to what degree his objective performance had improved. Moreover, although MAAS was used to measure his degree of awareness of, and attention to, mindfulness, this scale was not specifically intended for use with athletes.¹⁹ Going forward, a psychological scale to measure mindfulness for use specifically with athletes would enable examination of the effects of such interventions in greater detail.²⁴ Lastly, there were few counseling sessions (only three) that were implemented over a short

period of time because the patient requested that the sessions be conducted until upcoming championships. As such, I limited the mindfulness intervention to only the basics of mindfulness of the body and breathing. Since implementation of other types of mindfulness in stages is possible,¹⁷ it is important to incorporate additional mindfulness techniques and to verify ways in which such interventions increase the prominence of the positive effects.

The author declares no conflict of interest.

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