



Effectiveness Of Sport Psychology Interventions In Reducing Stress And Anxiety Among Competitive Athletes

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Date of Submission: 06-09-2023

Date of Acceptance: 18-09-2023

ABSTRACT

Sports Psychology focuses on understanding and improving an athlete's mental and emotional aspects to enhance athletic performance. The importance of developed psychological skills for an elite athlete has long been acknowledged. A player without a 'thick skin' is unlikely to be successful in any sport. Constant criticism and scrutiny from various sources and increasing stress demands can induce a pessimistic environment for athletes, impacting their performances and further feeding their negative emotions. Such a vicious cycle can derail an athlete's entire career. In such a situation, psychology becomes an important weapon in their armoury. This article aims to study and analyze the usefulness and effectiveness of psychological interventions in dealing with challenges faced by competitive athletes and managing the stress and anxiety that come with it and also to study the challenges and weaknesses of intervention research, particularly the impact of covid-19 on the delivery of such programs.

I. INTRODUCTION

Competitive Sports can be an extremely demanding and challenging arena for even the best of athletes. In an interview with The Guardian, legendary Football Goalkeeper, Gianluigi Buffon spoke about the emotional toll of losing important matches, leading to depression and anxiety. He emphasized the importance of stress management and suggested athletes care for their mental health (Guardian, 2013). Basketball player Tyrell Terry announced his retirement at the age of 22 after playing just 2 seasons in the NBA citing severe anxiety as the reason for retiring. He said that he experienced the 'darkest times' of his life while playing the sport (CNN, 2022). Examples like these show that sports performers have to manage a wide range of demands and psychological responses if

they are to improve their performances and enjoy their sport experience. While some athletes can cope with the environmental stressors and the consequences of the stress process, many others fail leading to poor performances and severe mental health issues such as depression, burnout, anxiety etc. Effective psychological interventions, therefore, are extremely important for the mental and emotional well-being of professional sports performers.

This article aims to find out whether the current sports psychology interventions are effective in optimizing sportspersons' stress process and performance by studying the existing literature. Out of the many intervention reviews in sports psychology, more focus is given to enhancing performance. Greenspan and Feltz (1989) reviewed 23 interventions with athletes and suggested that relaxation-based and cognitive models were effective in enhancing performance. In their study, Martin, Vause, and Schwartzman (2005) incorporated 7 single-subject designs and 8 experimental designs. 5 out of 7 single-subject designs reported positive effects for all participants while all eight experimental designs reported positive results for the treatment group compared to the control group. These studies show that psychological interventions have a positive impact on the performance of competitive athletes. However, such psychosocial programs can also play a positive role in athletes' affective well-being (Miller & Kerr, 2002). Due to the influence of stress and anxiety in the athletes' life intervention research must also focus on their effectiveness in optimizing the stress process of the athlete.

II. EFFECTIVE STRESS MANAGEMENT

Rumbold, Fletcher, and Daniels (2015) in their article outlined the importance of establishing the effectiveness of stress management



interventions. Effectiveness is defined by the American Psychological Association as “the applicability, feasibility, and usefulness of the intervention in the local or specific setting where it is to be offered” (APA,2002). Effectiveness is assessed by conducting manipulation checks or by calculating the overall effect size of behavior change for the various stress process component and performance outcomes measured. To date, the sport psychology literature has indicated that stress management interventions may generally be effective in reducing state and trait anxiety in athletes. Anxiety, however, is only one component of the broader, dynamic stress process (stressors, appraisals, emotions, coping). Establishing the circumstances in which programs are effective would assist sports psychologists in assessing when treatments are effective for performers of particular age groups and competitive levels

TREATMENT EFFICACY OF STRESS MANAGEMENT

Treatment efficacy as stated in the ‘Criteria for Evaluating Treatment Guidelines’ (APA, 2002) is the “systematic and scientific evaluation of whether a treatment works.”. Efficacy is based on internally valid outcomes. Certain research designs better infer causality thereby increasing the confidence that a certain treatment works. According to APA, Randomised Controlled Trials (RCTs) that involve control or comparison groups are better for inferring causality between variables and provide reliable estimates of effects (Martin et al; 2005). Such designs are more likely to be classified under the highest level of empirical support (Rumbold, Fletcher, and Daniels; 2015). Other measures of efficacy include the presence of natural settings,

descriptions allowing researchers to replicate the study, and whether manipulation checks or follow-up assessments were held.

EFFECT OF PSYCHOLOGICAL INTERVENTIONS ON STRESS OPTIMISATION AND PERFORMANCE

Based on the transactional model of stress given by Lazarus (1999) defines stress as “an ongoing process that involves individuals transacting with their environments, making appraisals of the situations they find themselves in, and endeavoring to cope with any issues that may arise” Rumbold, Fletcher, and Daniels (2015) conducted a systematic review of relevant intervention research. Based on the inclusion criteria, 64 studies were included in their review encompassing a variety of cognitive (11), multimodal (44), and alternative (9) interventions. Their review results indicate that in general such interventions optimized athletes’ stress experience and improved performance.

To establish the effectiveness, the interventions were grouped into 3 categories: Cognitive, Multimodal, and Alternative.

1. Cognitive interventions (11)- Under cognitive intervention studies, treatments involved, goal-setting, Rational-Emotive therapy, coping, imagery, Cognitive-Behavioural therapy, hypnosis, and self-talk. The summary of study effects revealed 23 positive effects, 6 null effects, and 1 negative effect. 6 studies measured both stress and performance, of which 4 reported combined positive results (66%). Environment (training or competition) and duration of treatment also played an important role in the postintervention outcome.



Table 2
Summary of Effects for Cognitive Stress Management Interventions (n = 11)

Outcome	Positive effect (+)	No effect (0)	Negative effect (-)	No. of studies	Summary of study effects		
					+	0	-
Appraisals							
Positive thoughts	25			1	1	0	0
Thought listing	21			1	1	0	0
Affective responses							
Anxiety perceptions	49 (.43)			1	1	0	0
Cognitive anxiety	9 (.63), 16 (1.38), 21, 28 (.67)	49 (.09)		5	4	1	0
Cognitive anxiety direction	44 (2.07), 46			2	2	0	0
Cognitive anxiety intensity		44 (0.00)		1	0	1	0
Negative affect	5, 46	45		3	2	1	0
Positive affect	3 (.59), 5, 45, 46			4	4	0	0
Somatic anxiety	16 (2.04), 28 (.46)	21, 49 (-.14)		4	2	2	0
Somatic anxiety direction	44 (2.07), 46			2	2	0	0
Somatic anxiety intensity			44 (-.94)	1	0	0	1
Performance	5, 9 (.25), 25, 28 (.54)	21, 44		6	4	2	0
Stress components and performance	5, 9, 25, 28	21 ^d , 44 ^d		6	4	2 ^d	0

Note. Parentheses indicate effect sizes (Cohen's *d*) where calculable. Study reference numbers are as follows: 3 = Arathoon & Malouff (2004); 5 = Barker & Jones (2008); 9 = Burton (1989); 16 = Cumming, Olphin, & Law (2007); 21 = Elko & Ostrow (1991); 25 = Hamilton & Fremouw (1985); 28 = Hatzigeorgiadis, Zourbanos, Mpoupaki, & Theodorakis (2009); 44 = Maynard, Smith, & Warwick-Evans (1995); 45 = McCarthy, Jones, Harwood, & Davenport (2010); 46 = Mellalieu, Hanton, & Thomas (2009); 49 = Page, Sime, & Nordell (1999).

^d Mixed effects for stress components and performance.

(Source- Rumbold, Fletcher, and Daniels; 2012)

2. Multimodal interventions (44)-Within multimodal interventions, treatments consisted of a combination of psychological techniques: arousal control, attentional training, cognitive control, cognitive and somatic relaxation training, concentration, COPE therapy, energizing, goal setting, hypnosis, imagery, meditation, motivation, preperformance routines, positive thinking, self-

talk, stress inoculation training, team building, etc. The summary of study effects revealed 86 positive effects, 36 null effects, and 6 negative effects. 30 studies measured the stress process and performance outcomes (68%). 16 of them reported positive results for both variables. The environment of the athlete again played an important role.



Table 3
 Summary of Effects for Multimodal Stress Management Interventions (n = 44)

Outcome	Positive effect (+)	No effect (0)	Negative effect (-)	No. of studies	Summary of study effects		
					+	0	-
Stressors							
Athletic stressors	32 (.80) ^a			1	1	0	0
Athletic and life stressors	32 (.89) ^a			1	1	0	0
Appraisals							
Benign appraisals	35 (.33) ^a			1	1	0	0
Challenge appraisals	35 (.18) ^a			1	1	0	0
Irrelevant appraisals		35 (.08) ^a		1	0	1	0
Negative thoughts	23 (.79) ^b	14 (.34) ^c , 15 (-.52) ^e		3	1	2	0
Positive thoughts	15 (.21) ^f , 38 ^a	14 (.31) ^c		3	2	1	0
Threat appraisals	35 (.69) ^a			1	1	0	0
Affective responses							
Affect reactions	2			1	1	0	0
Anxiety	64 (1.21)			1	1	0	0
Cognitive anxiety	15 (.85) ^f , 20 (1.19), 29, 31, 50, 53, 54, 55, 58 (.08)	10 (-.63), 11 (-.88), 14 (-.38) ^f , 41 (-.12)	13 (-.52)	14	9	4	1
Cognitive anxiety direction	24 (.77), 27, 40, 42 (.73), 60	1 (-.58)		6	5	1	0
Cognitive anxiety intensity	1 (.93), 24 (.77), 42 (.94), 60	27, 47		6	4	2	0
Negative affect	56 (.53)			1	1	0	0
Negative emotions	59 (.64)			1	1	0	0
Positive affect	56 (.64)			1	1	0	0
Somatic anxiety	15 (.60) ^f , 20 (1.09), 29, 39 ^a , 50, 51 (1.02), 53, 54, 55	10 (-.63), 11 (-.28), 14 (.24) ^e , 41 (-.20), 58 (-.21)	4, 13 (-1.15)	16	9	5	2
Somatic anxiety direction	24 (.77), 27, 40, 42 (1.04), 60	1 (-.66)		6	5	1	0
Somatic anxiety intensity	1 (1.06), 24 (.77), 42 (.18), 60	27, 47		6	4	2	0
State anxiety	37 ^a , 48 (1.09), 62 ^b , 63 ^b , 52 (.24) ^a			5	5	0	0
Stress reaction		22 (.27)		1	0	1	0
Tension			30 (-.85)	1	0	0	1
Trait anxiety	26 (.15), 61 (.18) ^b , 62 ^b , 63 ^b	14 (-.41) ^e , 15 (.01) ^e , 18, 35 (-.23) ^e , 47	33 (-1.04) ^a	10	4	5	1
Coping							
Adaptive coping		26 (-.37)		1	0	1	0
Approach coping		47		1	0	1	0
Avoidance coping		47		1	0	1	0



Table 3
 (continued)

Outcome	Positive effect (+)	No effect (0)	Negative effect (-)	No. of studies	Summary of study effects		
					+	0	-
Control over emotions	2			1	1	0	0
Coping with negative thoughts	17			1	1	0	0
Maladaptive coping	26 (.33)			1	1	0	0
Negative thinking coping	35 (1.03) ^a			1	1	0	0
Positive thinking coping		35 (-.04) ^a		1	0	1	0
Wishful thinking coping			30 (-1.47)	1	0	0	1
Performance	4, 10, 14 (.57) ^e , 17, 18, 23 ^b , 27, 29, 33 (.12) ^a , 35 ^a , 38 ^a , 39 ^a , 40, 48 (.97), 50, 51 (1.17), 53, 54, 56 (.85), 59 (.36, .49, .64), 60, 61 (.11, .17, .24) ^b , 63 ^b	1 (-.29, -.36), 13, 15 (.04) ^c , 20 (.24), 22, 62 ^b , 64		30	23	7	0
Stress components and performance	17, 23 ^b , 29, 38 ^a , 39 ^a , 40, 48, 50, 51, 53, 54, 56, 59, 60, 61 ^b , 63 ^b	1 ^d , 4 ^d , 10 ^d , 13 ^d , 14 ^{e,d} , 15 ^{c,d} , 18 ^d , 20, 22 ^d , 27 ^d , 33 ^{a,d} , 35 ^{a,d} , 62 ^{b,d} , 64 ^d		30	16	1, 13 ^d	0

Note. Parentheses indicate effect sizes (Cohen's *d*) where calculable. Study reference numbers are as follows: 1 = Abouzekri & Karageorghis (2010); 2 = Anshel & Gregory (1990); 4 = Bakker & Kayser (1994); 10 = Carter & Kelly (1997); 11 = Cogan & Petrie (1995); 13 = Crocker (1989a); 14 = Crocker, Alderman, & Smith (1988); 15 = Crocker (1989b), follow up to Crocker et al. (1988); 17 = Davis (1991); 18 = Daw & Burton (1994); 20 = Edwards & Steyn (2008); 22 = Fournier, Calmels, Durand-Bush, & Salmela (2005); 23 = Gravel, Lemieux, & Ladouceur (1980); 24 = Hale & Whitehouse (1998); 26 = Haney (2004); 27 = Hanton & Jones (1999); 29 = Holm, Beckwith, Ehde, & Tinius (1996); 30 = Johnson (2000); 31 = Jones (1993); 32 = Kerr & Goss (1996); 33 = Kerr & Leith (1993); 35 = Larsson, Cook, & Starrin (1988); 37 = Mace & Carroll (1986); 38 = Mace, Eastman, & Carroll (1986); 39 = Mace, Eastman, & Carroll (1987); 40 = Mamassis & Doganis (2004); 41 = Maynard & Cotton (1993); 42 = Maynard, Hemmings, Greenlees, Warwick-Evans, & Stanton (1998); 47 = Mesagno, Marchant, & Morris (2008); 48 = Owen & Lanning (1982); 50 = Prapavessis, Grove, McNair, & Cable (1992); 51 = Robazza, Pellizzari, & Hanin (2004); 52 = Ross & Berger (1996); 53 = Savoy (1993); 54 = Savoy (1997); 55 = Savoy & Beitel (1997); 56 = Sheard & Golby (2006); 58 = Terry, Coakley, & Karageorghis (1995); 59 = Thomas & Fogarty (1997); 60 = Thomas, Maynard, & Hanton (2007); 61 = Weinberg, Seabourne, & Jackson (1981); 62 = Weinberg, Seabourne, & Jackson (1982a); 63 = Weinberg, Seabourne, & Jackson (1982b); 64 = Wojcikiewicz & Orlick (1987).

^aStress inoculation training. ^bVisuomotor behavioral rehearsal. ^cCognitive affective stress management. ^dMixed effects for stress components and performance.

(Source- Rumbold, Fletcher, and Daniels; 2012)

3. Alternative Interventions (9)- Treatments consisted of anger awareness, biofeedback, applied relaxations, biofeedback, music interventions, personal goal management, and progressive relaxation. The summary of study effects revealed 15 positive effects, 11 null effects, and no negative

effects for stress components and performance. Three studies measured both stress components and performance outcomes, and two of them reported positive effects. However, findings were mixed when considering stress components in particular.



Table 4
Summary of Effects for Alternative Stress Management Interventions (n = 9)

Outcome	Positive effect (+)	No effect (0)	Negative effect (-)	No. of studies	Summary of study effects		
					+	0	-
Affective responses							
Anger		57		1	0	1	0
Angry behavior	8 (1.18)			1	1	0	0
Arousal	7 (1.38)			1	1	0	0
Cognitive anxiety direction		19 (.11), 43 (-.36)		2	0	2	0
Cognitive anxiety intensity	43 (.24)	19 (.11)		2	1	1	0
Confusion		36 (.05)		1	0	1	0
Depression	36 (.60)	57		2	1	1	0
Fatigue	36 (.56)			1	1	0	0
Hostility		36 (-.78)		1	0	1	0
Mood	6			1	1	0	0
Pleasantness	7 (1.5)			1	1	0	0
Somatic anxiety direction	43 (2.81)	19 (.22)		2	1	1	0
Somatic anxiety intensity	43 (.41)	19 (.12)		2	1	1	0
State anger		8		1	0	1	0
State anxiety	12			1	1	0	0
Tension	36 (.42)			1	1	0	0
Trait anxiety	34			1	1	0	0
Vigor		36 (.53)		1	0	1	0
Performance	7 (.40), 34, 57 (1.36)			3	3	0	0
Stress components and performance	7, 34	57 ^d		3	2	1 ^d	0

Note. Parentheses indicate effect sizes (Cohen's *d*) where calculable. Study reference numbers are as follows: 6 = Bishop, Karageorghis, & Loizou (2007); 7 = Bishop, Karageorghis, & Kinrade (2009); 8 = Brunelle, Janelle, & Tennant (1999); 12 = Costa, Bonaccorsi, & Scrimali (1984); 19 = Devlin & Hanrahan (2005); 34 = Lanning & Hisanaga (1983); 36 = Laurin, Nicolas, & Lavalée (2008); 43 = Maynard, Hemmings, & Warwick-Evans (1995); 57 = Simpson & Karageorghis (2006).

^d Mixed effects for stress components and performance.

(Source- Rumbold, Fletcher, and Daniels; 2012)

Overall, the evidence gathered from cognitive, multimodal, and alternative interventions seems to indicate an optimization of the components of the stress process. However, the evidence supporting optimized stress and performance is not as strong. This was most visible in the case of multimodal interventions. Therefore, reducing athletes' stress in certain cases might not result in improved performances. Thus, appropriate activation states concerning the sport and situation of the athlete must be considered before designing an intervention program. From the data reported, multimodal interventions seem to be the most effective.

A large number of the programs measured sportspersons' anxiety. A detailed review of these interventions showed that self-talk, imagery, and relaxation techniques were used the most either in isolation or as part of a combination of treatments. Multimodal interventions appeared to be the most

effective in reducing anxiety when these techniques were used as part of the program.

III. ISSUES IN INTERVENTION RESEARCH

3.1 LACK OF TREATMENT EFFICACY

Like any research area, issues are present in sport psychology intervention research. Despite the positive results, a certain amount of caution must be exercised in terms of efficacy. As per APA guidelines, only research designs that provide a comparison with another group should be evaluated at the highest level of empirical support. A large number of studies did not conduct randomized or controlled experiments. While this does not completely disregard the interventions used, it is not possible to infer causality.

The lack of Manipulation checks also contributes to the efficacy problem. Vealey (1994)



identified the importance of manipulation checks in interventions given the subjective nature of how people respond to the treatment. Manipulation checks supplement the objective outcomes of the interventions and are, therefore, needed for greater confidence in the treatment effects. In the systematic review by Rumbold, Fletcher, and Daniels (2015), only six multimodal studies conducted follow-up assessments. Without such checks, it is difficult to identify which treatments have long-term effects and when they subside. interventions should be assessed after at least a season, or 12 months, for any sustainable behavior change to be validly confirmed (Martin et al., 2005).

Another problem regarding treatment efficacy concerns the environment wherein the intervention took place. Interventions conducted in laboratory or training settings cannot be considered sufficient evidence for providing treatments to athletes in competition (Martin et al., 2005). Exposure to competitive settings is needed to test the likelihood of improved performance and stress appraisal in a high-pressure environment. Research has also shown that field studies often report better results than laboratory settings usually attributed to higher motivation (Sheeran P, Webb TL; 2016). Therefore, whenever possible psychologists should deliver the interventions in a competitive sports environment to strengthen the validity of positive effects.

Vealey (1995) emphasized the need for utilizing appropriate control groups for reducing the influence of placebo effect on the result. Lochbaum et al. (2022) in their systematic review stated the importance of distinguishing belief effects from the proposed mechanism through which the intervention should be successful. Where researchers report performance improvement, it is fundamental to explain the proposed mechanism by which performance was enhanced and to test the extent to which the improvement can be explained by the proposed mechanism(s) (Lochbaum et al., 2022).

3.2 EFFECT OF MODERATORS

Early work in sports psychology literature was exploratory and did not consider potential moderating variables. Duration of activity, type of sport, and level of competition are a few examples of potential moderators that could influence the relationship between treatment and effect. Research designs, therefore, need to be sensitive to such potential confounds (Lochbaum et al., 2022).

The competitive level of the athlete is important to consider when designing the intervention. Stress reduction strategies are found to be more appropriate in non-elite and sub-elite performers while elite athletes may benefit more from techniques that aim to positively impact the way stress is appraised (Rumbold, et al.; 2015). In the systematic review by Rumbold et al., most positive effects were reported in collegiate athletes but, 21% of studies did not report the competitive level of the athletes. It is also common for researchers to select undergraduate athletes out of convenience which can restrict the generalization of results to the population of primary interest (Lochbaum et al., 2022). Researchers should publish information regarding this moderator to infer which interventions are most effective based on the clientele.

Another significant moderator of program effects is the type of intervention used. Multimodal interventions require a longer implementation time compared to unimodal treatment (Rumbold et al.; 2015). Therefore, the time taken to administer an intervention might influence the effects on stress optimization and performance. The component of the stress process measured will also affect the outcome of the program.

Another factor is the variables involved in learning the intervention techniques. Self-talk, imagery, goal setting, etc. require cognitive processing, and as such some people will be able to learn them faster than others (Cumming, Eaves; 2018). Also, some athletes are trained in regulation strategies such as abdominal breathing, meditation, etc. Such athletes when recruited to the research will likely produce better results compared to novices. Thus, suitable controls need to be established when assessing the effects of psychological interventions.

IMPACT OF COVID-19 ON INTERVENTIONS

The CoVid-19 Pandemic brought global competitive sports events to a halt in 2020. Only after years of preparation do athletes become ready to compete in such events. The pandemic, therefore, caused extreme disappointment and distress among athletes and resulted in some major psychological challenges such as: 1) how to identify themselves, when they were not able to compete and earn a living from their sport, 2) Staying fit, active and holistically well when forced to spend long periods in isolation (Schinke et al; 2020).

Psychological flexibility refers to the ability to positively adapt to changing situations as



they arise (Clemente-Suarez et al.; 2020). A major challenge for athletes has been to apply this ability throughout 2020. To explain simply, athletes like others are prone to stress and anxiety during changing times, the majority of them train themselves to respond positively to such challenges and be solution-focused. From a support personnel perspective, how to advise and help these athletes, while severe travel restrictions and social distancing have remained in place throughout 2020 has been challenging (Hurley; 2021). The pandemic showed the value of sports psychology interventions in promoting the emotional well-being of an athlete.

Due to the restrictions imposed by the pandemic, psychological interventions have been delivered more frequently using online technologies. This practice was prevalent in previous decades even in sports settings with online interventions for self-talk, goal-setting, and imagery utilized with some success (Lane et al.; 2019). The pandemic, however, made online consulting and interventions a necessity rather than an option.

Bertollo et al (2021) conducted an online short psychological intervention (SPI) among Italian cyclists. The aim was to improve psychological responses through mental health literacy intervention and support their ability to cope with the effects of confinement and isolation. The intervention results showed an improvement in the eudaimonic feature of mental health and happiness. However, no significant improvements were found in the hedonic aspect of well-being and social well-being. This could be explained by the athlete's and the program's inability to change the surrounding context. The intervention focused on stress and well-being helping individuals to manage situations as they happened (secondary) and promoting reflections and learning from those situations after they have happened (tertiary). Other online interventions have also reported varying degrees of success in managing the mental well-being of an athlete (Lasnier and Bush; 2022, Meijen et al.; 2021).

IV. CONCLUSION

Despite the accelerated growth of sports, the field of sports psychology is still in its infancy. Based on current research on sports psychology interventions, psychological tools, and techniques do seem to contribute to increased efficiency in one's performance and stress optimization. However, there is no doubt that more stringent and empirically strong research into the effectiveness of

various interventions needs to be conducted. A historical problem has been the shortage of elite athletes in intervention studies which can lead to generalizations that are not fully evidence-based. The influence of moderators also needs to be considered when designing intervention programs. The future of sports psychology likely involves advanced technologies such as virtual reality and biofeedback and a greater focus on individualized approaches based on data-driven insights tailored to the needs of the athlete and the sport involved. The integration of neuroscience and psychology could also lead to innovative interventions for improving focus and resilience. Covid-19 and its impact on mental health raised awareness among the general population of the importance of psychological interventions. Technological advances have played a crucial role in adapting sport psychology interventions to the challenges of the pandemic. Virtual platforms have become essential for delivering counselling and intervention sessions without physical proximity. Wearable devices and applications that monitor physiological markers, sleep patterns and provide biofeedback have been used to help athletes manage stress and optimize performance even in remote settings. Online delivery of consulting sessions does benefit athletes by removing the barrier of location but also comes with its challenges.

REFERENCES

- [1]. American Psychological Association. (2002). Criteria for evaluating treatment guidelines. *American Psychologist*, 57, 1052–1059. doi:10.1037/0003-066X.57.12.1052.
- [2]. Bertollo, M., Forzini, F., Biondi, S., Di Liborio, M., Vaccaro, M. G., Georgiadis, E., & Conti, C. (2021). How Does a Sport Psychological Intervention Help Professional Cyclists to Cope With Their Mental Health During the COVID-19 Lockdown? *Frontiers in Psychology*, 12, 607152. <https://doi.org/10.3389/fpsyg.2021.607152>
- [3]. VEALEY, R. S. (1994, April). Current status and prominent issues in sport psychology interventions. *Medicine & Science in Sports & Exercise*, 26(4), 495–502. <https://doi.org/10.1249/00005768-199404000-00015>
- [4]. Lochbaum, M., Stoner, E., Hefner, T., Cooper, S., Lane, A. M., & Terry, P. C. (2022). Sport psychology and performance meta-analyses: A systematic review of the



- literature. PLOS ONE, 17(2), e0263408. <https://doi.org/10.1371/journal.pone.0263408>.
- [6]. Martin, G. L., Vause, T., & Schwartzman, L. (2005, July). Experimental Studies of Psychological Interventions With Athletes in Competitions. *Behavior Modification*, 29(4), 616–641. <https://doi.org/10.1177/0145445503259394>
- [7]. Miller, P. S., & Kerr, G. A. (2002, January 1). Conceptualizing Excellence: Past, Present, and Future. *Journal of Applied Sport Psychology*, 14(3), 140–153. <https://doi.org/10.1080/10413200290103464>
- [8]. Greenspan, M. J., & Feltz, D. L. (1989, September). Psychological Interventions with Athletes in Competitive Situations: A Review. *The Sport Psychologist*, 3(3), 219–236. <https://doi.org/10.1123/tsp.3.3.219>
- [9]. Rumbold, J. L., Fletcher, D., & Daniels, K. (2012, August). A systematic review of stress management interventions with sport performers. *Sport, Exercise, and Performance Psychology*, 1(3), 173–193. <https://doi.org/10.1037/a0026628>
- [10]. Sheeran, P., & Webb, T. L. (2016, September). The Intention-Behavior Gap. *Social and Personality Psychology Compass*, 10(9), 503–518. <https://doi.org/10.1111/spc3.12265>
- [11]. Cumming, J., & Eaves, D. L. (2018, January 29). The Nature, Measurement, and Development of Imagery Ability. *Imagination, Cognition and Personality*, 37(4), 375–393. <https://doi.org/10.1177/0276236617752439>
- [12]. Hurley, O. A. (2021). Sport Cyberpsychology in Action During the COVID-19 Pandemic (Opportunities, Challenges, and Future Possibilities): A Narrative Review. *Frontiers in Psychology*, 12, 621283. <https://doi.org/10.3389/fpsyg.2021.621283>
- [13]. Meijen, C., McCormick, A., Anstiss, P. A., & Marcora, S. M. (2022, March 1). “Short and Sweet”: A Randomized Controlled Initial Investigation of Brief Online Psychological Interventions With Endurance Athletes. *The Sport Psychologist*, 36(1), 20–28. <https://doi.org/10.1123/tsp.2020-0088>
- [14]. Lasnier, J., & Durand-Bush, N. (2022). The Impact of an Online Sport Psychology Intervention for Middle-Distance Runners: Should Self-Regulation or Mindfulness Be Prioritized? *The Sport Psychologist*, 1–11. <https://doi.org/10.1123/tsp.2021-0180>