
ABDIMAS

Jurnal Pengabdian kepada Masyarakat
<https://journal.unnes.ac.id/journals/abdimas/>

Improving Athletes' Mental Health Through Self-Talk and Progressive Muscle Relaxation on the Performance of Aquatic Athletes at The Polaris Water Park Pool n Demak Regency

Sungkowo¹, Sobihin¹, Rizam Ahada UN¹, Anggit Wicaksono¹, Sungatno¹, Ifa Nurul Azizah¹, Abdul Latif¹, Imron Fadillah¹

Universitas Negeri Semarang, Indonesia

*Corresponding Author: sungkowo@mail.unnes.ac.id

Abstract

Tension and stress during competition often lead to changes in psychological functioning, such as reduced concentration, loss of focus, increased anxiety, or, from a somatic perspective, increased muscle tension. Mental health can be affected by tension, which is seen as a result of physical interactions. Self-talk is a "strategy" employed by every athlete, whether verbalized or simply thought. Muscle tension is generally associated with stress, anxiety, and fear, as part of a process that helps our bodies prepare for potentially dangerous situations. The methods used included psychological education on self-talk and progressive muscle relaxation, progressive muscle relaxation practice, discussions, mentoring, and data collection on the athletes' mental health. The results of the community service research, as shown in the table, categorize 11 swimmers based on their mental health: 6 athletes categorized as moderate, and 5 athletes as low. Athletes with moderate mental health are considered to have good emotional, psychological, and social well-being, which influences how a person thinks, feels, and acts, including their ability to cope with the pressures of competition. Conversely, athletes with low mental health are classified as having good mental health.

Keywords: mental education, anxiety, athlete mental performance

INTRODUCTION

Any athlete experiencing stress or mental pressure will experience an impact on their mental health. One problem experienced by an athlete can trigger other stressors, which in turn affect the athlete's performance (1,2). Previous studies have shown that genetic factors can also determine an individual's level of happiness and mental state (3). Anyone can experience chronic stress when faced with a series of demands that continuously interfere with their ability to function (4,5). Examples of such demands include prolonged training under pressure with high targets (1). Tension during competition can occur when athletes perceive competitive situations as potentially intimidating or threatening, thus triggering mental health issues (6,7). The occurrence of tense and stressful situations during competition often causes changes in psychological functioning, such as reduced ability to concentrate, loss of focus, increased anxiety, or, from a somatic perspective, increased muscle tension (8,9).

Mental health can occur when tension is considered a result of physical interactions (10,11). Given the potential for further understanding the contribution of this psychological index, which encompasses the psychological burden faced, along with the increasing emphasis on athletes' mental health and well-being in sport (12,13), it is important to understand the potential impact of stress on athletes' mental health and well-being in sports (12,13). Athletes experience emotions, especially tension and stress when performing in competitions, emotions are one of the most important factors that can influence the outcome of a sporting competition (14). Failure of athletes to respond to tension,

anxiety and stress often leads to a decline in mental health and a decrease in performance capacity during competition, it is clear that athletes participating in competitive sports need to use psychological abilities and effective coping strategies to meet their expectations and improve their performance (15,16). From these problems it is concluded that there are two important aspects of mental health: the experience of experiencing difficulties and positive adaptation. This is a multidimensional problem that takes into account mental health factors where athletes with higher resilience can adapt more successfully to events that cause tension and stress compared to athletes who experience lower resilience.

Self-talk is a "strategy" employed by every athlete, whether spoken aloud or simply in their mind (17). However, athletes often don't realize that what they're doing is actually self-talk (18,19). Yet, self-talk can be trained and is an important mental training tool for improving athletes' mental health (20,21). However, self-talk doesn't necessarily improve an athlete's mental state, ultimately improving their mental health and performance (22). This is because there are two types of self-talk (23). The first is positive self-talk, which is beneficial and useful for making athletes mentally resilient. Conversely, the second type, negative self-talk, is detrimental to athletes because negative thoughts fill them, increasing anxiety, and decreasing self-confidence and concentration. It's important for athletes to recognize the type of self-talk they frequently use; transforming negative self-talk into positive self-talk can increase the athlete's use of positive self-talk (23).

Positive self-talk training is a mental training technique included in Rational Emotive Behavior Therapy (REBT) and involves the importance of a relaxed state of mind. A relaxed body maintains better mental health; with attention and thoughts focused on only one thing at a time (24). Therefore, in practicing self-talk training, athletes must relax their bodies first (25). Self-talk training is included in the REBT technique which is characterized by repeating positive words over a certain period of time; where the words used are appropriate and suitable for each athlete (18,26). There are two functional dimensions of self-talk training, namely instructional self-talk and motivational self-talk (27). Both have differences in terms of their effects on athletes. Instructional self-talk is suitable for improving aspects of technique, ability, tactics, and athlete movements, while motivational self-talk can improve mood and positive emotions (such as self-confidence) and reduce negative emotions (for example, anxiety) (27,28). In one self-talk training, coaches can train both to athletes and teach what situations and conditions are suitable for practicing positive self-talk (24). From the discussion, it can be concluded that positive words must have an emotional connection, or in other words, the words must be created by the athlete himself and be suitable for him to use to make him relax and calm.

When athletes experience a decline in mental health that results in anxiety, stress, or depression, one response is muscle tension. Muscle tension is commonly associated with stress, anxiety, and fear as part of a process that helps our bodies prepare for potentially dangerous situations (29,30). Although some of these situations are not actually dangerous, our bodies will respond to them in the same way (31,32). Athletes are not aware of how their muscles become tense, but they may clench their teeth slightly, causing their jaw to tighten, or their shoulders may become stiff (16,33). Muscle tension can also be associated with back pain and tension headaches (34). One method of reducing muscle tension that people find beneficial is through a technique called Progressive Muscle Relaxation (PMR) (35,36). In this regard, it has been concluded that progressive muscle relaxation training is essential for athletes facing competition. If an athlete is tense, they should tense certain muscles and then relax them, then consistently practice this technique. When an athlete's body is physically relaxed, it can reduce feelings of tension, anxiety, and stress (37). Many studies have shown that muscle relaxation techniques benefit athletes' mental health by increasing self-confidence, concentration, performance, and reducing anxiety and stress (33,38,39). Progressive muscle relaxation is important for athletes to reduce tension, anxiety, and stress. The effects of relaxation are influenced by a variety of emotional and physiological factors (34). Therefore, it is necessary to identify appropriate strategies and intervention programs during the competitive season to contribute to reducing tension, anxiety, and stress levels and improving athletes' mental health (33). From this discussion, it can be concluded that regular progressive muscle relaxation training will help athletes improve their mental health performance. Over time, they will be able to use this method to overcome tension, anxiety, and stress, or relieve stress and tension, and help achieve good mental health.

Based on the above issues, it is concluded that providing an understanding of mental health through self-talk and progressive muscle relaxation training is very important for aquatic athletes and provides solutions to address problems faced by athletes both during training and competition.

METHOD

This research service uses a descriptive quantitative type. The method used is the test survey method. Each athlete carries out the mental health test. Each athlete has different psychological characteristics, the athlete's experience is also influenced by the specific situation they are facing. The population in this study were swimm athletes of Demak Central Java, totaling 11 people. Then the sampling technique is total sampling, which is a sampling determination technique by taking the entire population.

RESULT AND DISCUSSION

The research results can be seen in the following table.

Table 1. Recommendation Analysis : Psychological test results of athletes 1

NO	Sample	Mental Health
1	Athlete 1	Low
It's important to practice emotional control, practical thinking, focus on the game, and think positively. Consult a psychological team for counseling regarding these issues. Maintain your ability and skills in managing your thoughts and adapting to various situations.		

Table 2. Recommendation Analysis : Psychological test results of athletes 2

NO	Sample	Mental Health
2	Athlete 2	Medium
Improved practice in emotional control, practical thinking, focus on the game, and positive thinking. If you are unable to do these things independently, you should contact a psychological team for counseling. Maintaining the ability and skills to manage your thoughts and adapt to various situations.		

Table 3. Recommendation Analysis : Psychological test results of athletes 3

NO	Sample	Mental Health
3	Athlete 3	Medium
Improved practice in emotional control, practical thinking, focus on the game, and positive thinking. If you are unable to do these things independently, you should contact a psychological team for counseling. Maintaining the ability and skills to manage your thoughts and adapt to various situations.		

Table 4. Recommendation Analysis : Psychological test results of athletes 4

NO	Sample	Mental Health
4	Athlete 4	Low
It's important to practice emotional control, practical thinking, focus on the game, and think positively. Consult a psychological team for counseling regarding these issues. Maintain your ability and skills in managing your thoughts and adapting to various situations.		

Table 5. Recommendation Analysis : Psychological test results of athletes 5

NO	Sample	Mental Health
5	Athlete 5	Medium
Improved practice in emotional control, practical thinking, focus on the game, and positive thinking. If you are unable to do these things independently, you should contact a psychological team for counseling. Maintaining the ability and skills to manage your thoughts and adapt to various situations.		

Table 6. Recommendation Analysis : Psychological test results of athletes 6

NO	Sample	Mental Health
6	Athlete 6	Low
It's important to practice emotional control, practical thinking, focus on the game, and think positively. Consult a psychological team for counseling regarding these issues. Maintain your ability and skills in managing your thoughts and adapting to various situations.		

Table 7. Recommendation Analysis : Psychological test results of athletes 7

NO	Sample	Mental Health
7	Athlete 7	Low
It's important to practice emotional control, practical thinking, focus on the game, and think positively. Consult a psychological team for counseling regarding these issues. Maintain your ability and skills in managing your thoughts and adapting to various situations.		

Table 8. Recommendation Analysis : Psychological test results of athletes 8

NO	Sample	Mental Health
8	Athlete 8	Medium
Improved practice in emotional control, practical thinking, focus on the game, and positive thinking. If you are unable to do these things independently, you should contact a psychological team for counseling. Maintaining the ability and skills to manage your thoughts and adapt to various situations.		

Table 9. Recommendation Analysis : Psychological test results of athletes 9

NO	Sample	Mental Health
9	Athlete 9	Low
It's important to practice emotional control, practical thinking, focus on the game, and think positively. Consult a psychological team for counseling regarding these issues. Maintain your ability and skills in managing your thoughts and adapting to various situations.		

Table 10. Recommendation Analysis : Psychological test results of athletes 10

NO	Sample	Mental Health
10	Athlete 10	Medium
Improved practice in emotional control, practical thinking, focus on the game, and positive thinking. If you are unable to do these things independently, you should contact a psychological team for counseling. Maintaining the ability and skills to manage your thoughts and adapt to various situations.		

Table 11. Recommendation Analysis : Psychological test results of athletes 11

NO	Sample	Mental Health
11	Athlete 11	Medium
Improved practice in emotional control, practical thinking, focus on the game, and positive thinking. If you are unable to do these things independently, you should contact a psychological team for counseling. Maintaining the ability and skills to manage your thoughts and adapt to various situations.		

Discussion

The results of the community service research, as shown in the table, show the mental health of 11 swimmers: 6 athletes in the moderate category, and 5 athletes in the low category.

Athletes in the moderate category have good mental health, indicating a good emotional, psychological, and social well-being, which influences how a person thinks, feels, and acts, including the ability to cope with the pressures of competition. This condition is important because it impacts an athlete's ability to make decisions, relate to others, and function optimally in daily life, especially in the lead-up to a competition. Maintaining mental health can be achieved by maintaining a healthy lifestyle, managing stress, managing emotions, and ensuring adequate sleep.

Conversely, athletes with low mental health require the following solutions:

- A. Develop adequate feelings of security within yourself. Recognize feelings of insecurity

within and around you. Some may be real, but most are imaginary. Develop solutions for the real ones and let go of the unreal ones. Feelings of insecurity usually arise from a lack of self-confidence. We feel incapable of handling difficult situations in life. We start to worry about our future. We stop fighting against difficulties and give up. Don't give up. Take care of the present, and the future will take care of itself.

- B. Conduct an honest and adequate self-evaluation. Know yourself. Recognize your strengths and accept your weaknesses. Accepting and then addressing your weaknesses will strengthen you and create a stronger reservoir.
- C. Develop adequate spontaneity and emotionality. Be spontaneous in all your actions; don't wait for others to push or pull you, because you will reap what you sow. Receiving emotional warmth from others is good for your mental health.
- D. Maintain effective contact with reality. Diana Hayden said at the Miss Universe pageant, "From dreams comes reality." Even if you're a dreamer, keep your dreams positively oriented so you can turn them into reality. Learn to live within this world, not outside it.
- E. Have adequate physical desires and the ability to fulfill them. People certainly can't live on food alone. They also need to fulfill other biological needs and have the ability to fulfill them. Eat, drink, sleep, and be happy. You must eat and sleep adequately. However, each person pays a different price to fulfill these desires. Many people have to spend a lot of money on adequate food and sleep. If you're in that group, you should plan to afford these luxuries. This will certainly benefit you. "A healthy mind in a healthy body" is a very old proverb.
- F. Have adequate self-awareness. Know yourself, and health will follow. Many people are self-conscious. We tend to overestimate ourselves or overestimate ourselves. Both have their drawbacks. We are what we are, not what we think we are. Nevertheless, we should always think positively about ourselves.
- G. Have a whole and consistent personality. We must integrate ourselves. We must have consistency in our thoughts and actions. Avoid split personalities. Remember that united we stand, divided we fall. The same applies to personality. A unique and consistent individual with a balanced mind will always be strong and mentally healthy.
- H. Have adequate goals in life. A life without desires is truly a life without purpose. Your existence in this world has a specific purpose. Define your purpose and goals in life. Set your goals and do something to achieve them. Experience the joy of success. These things bring you happiness and joy, which are the keys to mental health.
- I. Learn from experience. A child who has been burned is afraid of fire. But as he grows up, he also learns the positive uses of fire. We all have good and bad experiences in life, and we learn from both. Bad experiences teach us to continue seeking good experiences. Indeed, there is no better teacher in this world than experience.

CONCLUSION

Conclusion on mental health skills of swimming athletes has a good category proven athletes easily maintain the ability to adapt and self-control in facing the competition. In psychological tension has a low category which results in athletes being unable to control emotions, think practically, focus on the match.

REFERENCES

1. Reardon CL, Hitchcock M. Mental health in individual versus team sports. *Int Rev Psychiatry* [Internet]. 2024;36(3):284–95. Available from: <https://doi.org/10.1080/09540261.2024.2349079>
2. Breistøl S, Clench-Aas J, Van Roy B, Kjærsti Raanaas R. Association Between Participating in Noncompetitive or Competitive Sports and Mental Health among Adolescents – a Norwegian Population-based Cross-sectional Study. *Scand J Child Adolesc Psychiatry Psychol*. 2017;5(1):28–38.
3. Rice SM, Purcell R, De Silva S, Mawren D, McGorry PD, Parker AG. The Mental Health of Elite Athletes: A Narrative Systematic Review. *Sport Med*. 2016;46(9):1333–53.
4. Prior E, Papathomas A, Rhind D. A systematic scoping review of athlete mental health within competitive sport: interventions, recommendations, and policy. *Int Rev Sport Exerc Psychol*

- [Internet]. 2022;17(2):903–25. Available from: <https://doi.org/10.1080/1750984X.2022.2095659>
5. Hiremath C. International Conference “Sports : An Integral Component of Nation-Building .” ~ 14 ~ Int J Physiol [Internet]. 2019;1:14–8. Available from: www.journalofsports.com
6. Patel DR, Omar H, Terry M. Sport-related Performance Anxiety in Young Female Athletes. J Pediatr Adolesc Gynecol [Internet]. 2010;23(6):325–35. Available from: <http://dx.doi.org/10.1016/j.jpbg.2010.04.004>
7. Schaefer J, Vella SA, Allen MS, Magee CA. Competition Anxiety, Motivation, and Mental Toughness in Golf. J Appl Sport Psychol. 2016;28(3):309–20.
8. Hanton S, Neil R, Mellalieu SD. Recent developments in competitive anxiety direction and competition stress research. Int Rev Sport Exerc Psychol. 2008;1(1):45–57.
9. Budisetyani PW. Relaksasi Meditasi Dan Kecemasan Bertanding Pada Atlet Menembak Di Denpasar. J Psikol Udayana. 2018;5(2):233–40.
10. Didymus FF, Norman L, Hurst M, Clarke NJ. Job stressors, strain, and psychological wellbeing among women sports coaches. Int J Sport Sci Coach. 2021;16(3):456–64.
11. Rice SM, Parker AG, Rosenbaum S, Bailey A, Mawren D, Purcell R. Sport-Related Concussion and Mental Health Outcomes in Elite Athletes: A Systematic Review. Sport Med. 2018;48(2):447–65.
12. Mellalieu S, Jones C, Wagstaff C, Kemp S, Cross MJ. Measuring Psychological Load in Sport. Int J Sports Med. 2021;42(9):782–8.
13. Bauman NJ. The stigma of mental health in athletes: Are mental toughness and mental health seen as contradictory in elite sport? Br J Sports Med. 2016;50(3):135–6.
14. Ilmiah JP. Relaksasi Guided Imagery Untuk Menurunkan Kecemasan Bertanding Pada Atlet Pencak Silat. Intuisi J Psikol Ilm. 2018;10(1):50–8.
15. Nicholls AR, Polman RCJ. Coping in sport: A systematic review. J Sports Sci. 2007;25(1):11–31.
16. McCloughan LJ, Hanrahan SJ, Anderson R, Halson SR. Psychological recovery: Progressive muscle relaxation (PMR), anxiety, and sleep in dancers. Perform Enhanc Heal [Internet]. 2016;4(1–2):12–7. Available from: <http://dx.doi.org/10.1016/j.peh.2015.11.002>
17. Raharjo HP, Kusuma DWY, Mugiyo H. Personality Characteristics In Individual And Team Sports. 2018;12(Isphe):92–5.
18. Finn J. An Introduction to Using Mental Skills to Enhance Performance in Golf: Beyond the Bounds of Positive and Negative Thinking. Int J Sports Sci Coach. 2008;3(1_suppl):255–69.
19. McCormick A, Meijen C, Marcora S. Psychological Determinants of Whole-Body Endurance Performance. Sport Med [Internet]. 2015;45(7):997–1015. Available from: <http://dx.doi.org/10.1007/s40279-015-0319-6>
20. Hasanah U, Refanthira N. Human Problems: Competitive Anxiety in Sport Performer and Various Treatments to Reduce It. 2020;395(Acpch 2019):144–8.
21. Hanshaw GO, Sukal M. Effect of self-talk and imagery on the response time of trained martial artists. Sport Exerc Perform Psychol. 2016;5(3):259–65.
22. Latinjak AT, Torregrossa M, Comoutos N, Ramis Y, Latinjak AT, Torregrossa M, et al. Goal-directed self-talk used to self-regulate in male basketball competitions Goal-directed self-talk used to self-regulate in male basketball competitions. J Sports Sci. 2019;37(12):1429–33.
23. Georgakaki SK, Karakasidou E. The Effects of Motivational Self-Talk on Competitive Anxiety and Self-Compassion : A Brief Training Program among Competitive Swimmers. 2017;677–99.
24. Jordana A, Turner MJ, Ramis Y, Torregrossa M. A systematic mapping review on the use of Rational Emotive Behavior Therapy (REBT) with athletes. Int Rev Sport Exerc Psychol [Internet]. 2020;16(1):231–56. Available from: <https://doi.org/10.1080/1750984X.2020.1836673>
25. Fritsch J, Feil K, Jekauc D, Latinjak AT, Hatzigeorgiadis A. The relationship between self-talk and affective processes in sports: a scoping review. Int Rev Sport Exerc Psychol [Internet]. 2024;17(1):482–515. Available from: <https://doi.org/10.1080/1750984X.2021.2021543>
26. Walter N, Nikoleizig L, Alfermann D. Effects of self-talk training on competitive anxiety, self-Efficacy, volitional skills, and performance. Sport. 2019;7(6):1–20.
27. Park SH, Lim BS, Lim ST. The effects of self-talk on shooting athletes’ motivation. J Sport Sci Med. 2020;19(3):517–21.
28. Brittany Christine Collinwood. Athletes’ Perceptions of the Influence Their Personality Types Have on Their Success as Athletes and Their Relationship with Their Coach. 2020;2507(February):1–9.
29. Jacob S, Sharma S. Efficacy of Progressive Muscular Relaxation on Coping Strategies. Int J Indian Psychol ISSN [Internet]. 2018;6013(1):2348–5396. Available from: <http://www.ijip.in>
30. Bader CM. Sport psychology. Orthop Knowl Updat Sport Med 5. 2018;553–9.
31. Jorg, Felfe AK. Comparing the Effectiveness of a Mindfulness-Based Intervention.pdf

- [Internet]. 2023. p. 20. Available from: <http://www.ijip.in>
32. Droit-Volet S, Fanget M, Dambrun M. Mindfulness meditation and relaxation training increases time sensitivity. *Conscious Cogn* [Internet]. 2015;31:86–97. Available from: <http://dx.doi.org/10.1016/j.concog.2014.10.007>
 33. Parnabas VA, Mahamood Y, Parnabas J, Abdullah NM. The relationship between relaxation techniques and sport performance. *Univers J Psychol* [Internet]. 2014;2(3):108–12. Available from: <http://www.hrpub.org>
 34. Battaglini MP, Pessôa Filho DM, Calais SL, Miyazaki MCOS, Neiva CM, Espada MC, et al. Analysis of Progressive Muscle Relaxation on Psychophysiological Variables in Basketball Athletes. *Int J Environ Res Public Health*. 2022;19(24).
 35. Ali K. The Effectiveness of Progressive Muscle Relaxation to Reduce the Intensity of Competitive Sport Anxiety among the elite Players Football. *Res J Phys Educ Sci ISSN* [Internet]. 2015;3(2):4–8. Available from: www.isca.me
 36. Gao L, Curtiss J, Liu X, Hofmann SG. Differential Treatment Mechanisms in Mindfulness Meditation and Progressive Muscle Relaxation. *Mindfulness (N Y)*. 2018;9(4):1268–79.
 37. Francesco P, Mauro MG, Gianluca C, Enrico M. The efficacy of relaxation training in treating anxiety. *Int J Behav Consult Ther*. 2010;5(3–4):264–9.
 38. Singh A, Singh T, Singh H. European Journal of Physical Education and Sport Science AUTOGENIC TRAINING AND PROGRESSIVE MUSCLE RELAXATION INTERVENTIONS: EFFECTS ON MENTAL SKILLS OF FEMALES. 2018;134–41. Available from: www.oapub.org/edu
 39. Hashim HA, Hanafi H, Yusof A. The effects of progressive muscle relaxation and autogenic relaxation on young soccer players' mood states. *Asian J Sports Med*. 2011;2(2):99–105.