

Motivational general arousal: an exercise to reduce emotions in pencak silat athletes

Kirana Putih^{1,*}, Komarudin Komarudin¹, Mochamad Yamin Saputra¹, Geraldi Novian²

¹ Study Program of Sport Coaching Education, Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, Bandung, Indonesia

² Study Program of Sport Physical Coaching, Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, Bandung, Indonesia

¹kiranaputih@upi.edu *; ¹komarudin_pko@upi.edu ; ¹mochyamins@upi.edu , ²geraldi.novian@upi.edu

*corresponding author

ABSTRACT

In the world of sports, there is a form of mental training that is often used and has been proven to be effective in overcoming emotional decline in athletes. Motivational General Arousal (MGA) is a part of mental training or imagery. However, unfortunately, this form of training is still rarely applied in Indonesia, especially in the sport of Pencak silat. This study aims to examine the significant influence of Motivational General Arousal (MGA) training on reducing the emotions of pencak silat athletes. The experimental method used in this research was a one-group pretest-posttest design involving 18 athletes, 9 women and 9 men in the Pencak Silat sports branch from East Belitung Regency. Motivational General Arousal (MGA) treatment was given for 5 weeks to the sample intensively, before and after the treatment the sample would be given a Multidimensional Emotion Questionnaire (MEQ) questionnaire to measure emotions. After the data was obtained, it was analyzed using SPSS Version 26 and the t-test. The results of the research show that there is a significant influence of the MGA form of training on reducing the emotions of pencak silat athletes, as evidenced by all the graphs which decreased after being given Motivational General Arousal (MGA) imagery training with an average difference of 6%. This research concludes that the MGA form of training is recommended to be applied in the world of sports because this form of mental training can help athletes perform optimally when the athlete's emotional decline can be regulated by themselves and performance increases despite internal and external pressure.

Keywords: motivational general arousal, emotion, athlete

ARTICLE INFO

Article History:

Accepted : 28th April 2024

Approved : 2nd June 2024

Available Online June

Correspondence Address:

Kirana putih

Pendidikan kepelatihan olahraga. Universitas pendidikan indonesia

Dr. Street Setiabudi No. 229, Isola, Kec. Sukasari, Bandung City,

West Java 40154

E-mail: kiranaputih@upi.edu

INTRODUCTION

In the process of preparing for a match, athletes will of course feel psychological ups and downs, there are many things they feel including emotional feelings ([Tur-Porcar & Ribeiro, 2020](#)). If an individual is not strong enough to face these things psychologically, conflict will likely occur, so the individual needs to remain mentally tough ([Komarudin et al., 2022](#)). These unstable emotional feelings will interfere with the maximum performance process because they involve difficulties in thinking positively, and realistically and even difficulty in making decisions. This is also supported by ([Azizah & Jannah, 2020](#)). Generally studied, the emotions felt can take the form of feelings of anxiety, sadness, fear, anger, joy, or pride ([Tamminen, 2022](#)). Unstable emotional feelings will interfere with performance during competitions, therefore the importance of mental training in the process leading up to an athlete's competition,

in mental imagery training is described as a cognitive experience that imitates real experience. This can carry out several cognitive functions in sports that improve performance ([Anuar, 2017](#)). Emotions are very important for an athlete's performance if they can be stable and controlled by the athlete ([Barker, 2024](#)), but when these emotions become intense they will hurt the athlete's attitude and performance ([Tamminen, 2017](#)).

Meanwhile, during competitions, athletes are often provoked by emotions due to internal and external pressure states that concentration refers to a person's ability to exert deliberate mental effort on what is considered important in a particular situation ([Pratama et al., 2020](#)). Therefore, in the training process, coaches must care more about the athlete's mentality and mental preparation ([Ezumah, 2022](#)). In the training process, we know that four aspects must be considered to achieve athlete success, namely: technical, physical, tactical, and mental/psychological ([Febrianty et al., 2021](#)). Imagery has been repeatedly shown to increase short-term motivation and performance in sports, techniques that focus on the use of cognitive motor or motivational imagery in addition to training, are most suitable for improving performance and increasing emotional factors such as self-confidence which coaches rarely do ([Simonsmeier, 2021](#)). With the pressure experienced by athletes, for example, an athlete has to grow and they feel confident in their ability to manage the responsibilities related to their performance ([Simons, 2023](#)). If athletes' emotional feelings are not trained, several studies have shown that athletes with a higher competitive level often show the ability to carry out greater imagery training compared to athletes with a lower level ([Rhodes, 2022](#)). One method that might be able to facilitate emotional states, and in turn decision making, is in the form of Motivational General Arousal (MGA) imagery exercises ([Spindler, 2019](#)).

If this training is given to athletes from an early age, the athlete will have good cognitive abilities so that it can provide benefits for the athlete in receiving the information conveyed by the coach ([Saputra et al., 2017](#)). Knowledge of factors that influencing the achievement of peak performance or achievement is very necessary for coaches and the athletes themselves. Awareness of the importance of psychological factors is needed to be able to improve and increase psychological abilities as a supporting factor for achieving it peak performance ([Syambas et al., 2023](#)). However, special forms of imagery training such as MGA are rarely carried out by coaches even though they can be effective in helping to develop positive emotions for athletes because MGA itself is defined as imagery training that is related to emotions and performance, such as feeling happy and enthusiastic when competing in front of a large audience many ([Riyadi, 2019](#)). Previous research using qualitative narrative methods

to increase our understanding of the social/relational aspects of emotions in the domain of sport and physical activity only explored different emotional states ([Moll & Davies, 2021](#)). And used alternative cognitive performance measures to better understand the role of emotions in cycling athletes, whereas in my research I used experimental methods and the MGA program which focuses on improving the emotions of pencak silat athletes ([Klonsky, 2019](#)), so this study aims to examine the significant influence of Motivational General Arousal (MGA) training on reducing the emotions of pencak silat athletes.

METHODS

The research method used in this research is the experimental method because this method is based on the consideration that the nature of experimental research is trying something to find out the influence or consequences of a treatment given ([Marsha et al., 2021](#)). This research method uses a quantitative research design, so the author uses a one-group pretest-posttest design as the research design. The population in this article will be 18 athletes with details of 9 female and 9 male teenagers with an average age of 14 years in the pencak silat sport in the Bangka Belitung Islands Province. The sample selection was based on the results of the researcher's observations where the sample did not appear to have good emotional stability. This is proven by several cases, such as during matches the sample often feels afraid to attack the opponent, often does abnormal activities, and is less enthusiastic when the coach provides a physical training program. So the researcher used purposive sampling with the following special characteristics: active athletes in pencak silat sports in the single and sparring arts categories, aged 13-18 years in middle adolescence and with a training age of 7-8 years

This research was conducted at the East Belitung Pencak Silat Home with the research procedures carried out, namely 1) coordinating with trainers to carry out Motivational General Arousal (MGA) imagery exercises, 2) creating a training program for MGA imagery, 3) conducting an online pretest using Google form, 4) explaining the purpose of MGA imagery training, 5) providing a general imagery training program then adding MGA imagery training, 6) conducting a posttest. MGA imagery training was carried out for 5 weeks with a total of 16 sessions. The instrument used to measure emotions is the Multidimensional Emotion Questionnaire (MEQ) ([Klonsky, 2019](#)). After the data was obtained, the t-test was carried out as data analysis.

RESULTS AND DISCUSSION

Results

The data obtained was processed and analyzed using SPSS Version 26, described in Table 1.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Pretest	18	99	149	120.89	14.397	207.281
Posttest	18	92	127	105.89	10.209	104.222
Valid N (listwise)	18					

Based on Table 1, it can be seen that in the initial test, the average score was 110.12, the standard deviation was 120.89, the lowest score was 99, the highest score was 149. Meanwhile, in the post-test, the average score was 105.89, the standard deviation was 10.209, the lowest score. amounted to 92, and the highest value was 127. Next, the author carried out a normality test, which can be seen in Table 2.

Table 2. Test of Normality

		Pretest	Posttest	
N		18	18	
Normal Parameters ^{a,b}	Mean	120.89	105.89	
	Std. Deviation	14.397	10.209	
Most Extreme Differences	Absolute	.108	.162	
	Positive	.108	.162	
	Negative	-.095	-.146	
Test Statistic		.108	.162	
Asymp. Sig. (2-tailed)		.200 ^{c,d}	.200 ^{c,d}	
Monte Carlo Sig. (2-tailed)	Sig.	.969 ^e	.671 ^e	
	99% Confidence Interval	Lower Bound	.965	.658
		Upper Bound	.974	.683

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.
e. Based on 10000 sampled tables with starting seed 334431365.

Table 2 shows the results of the data normality test using the Kolmogorov-Smirnov test. Based on Table 2, it can be seen that the pretest obtained statistical values of .108, N 18, and Sig. amounted to .969, while the posttest obtained a statistical value of .162, N 18, and Sig. of .671. Based on the uki results, both data are declared "Normal Distribution". Next, the author carried out a homogeneity test, which can be seen in Table 3.

Table 3. Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Score	Based on Mean	1.462	1	34	.235
	Based on Median	1.059	1	34	.311

Based on Median and with adjusted df	1.059	1	25.476	.313
Based on trimmed mean	1.400	1	34	.245

A homogeneity test is needed to find out whether the samples have the same characteristics. This test is used to ensure that the sample group comes from a population that has the same or homogeneous variance. Based on Table 3, a significant value of $.235 > .050$ is obtained, so H_0 is accepted. So it can be concluded that the data has the same group variance (homogeneous).

Table 4. Paired Samples Test

Pair	Pretest- Posttest	Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
1		15.000	11.817	2.785	-20.877	-9.123	-5.385	17	.000

Based on Table 4, the significance value is $.000 < .050$, so H_0 is rejected. So it can be concluded that there is a significant influence of Motivational General Arousal (MGA) on reducing emotions in pencak silat athletes.

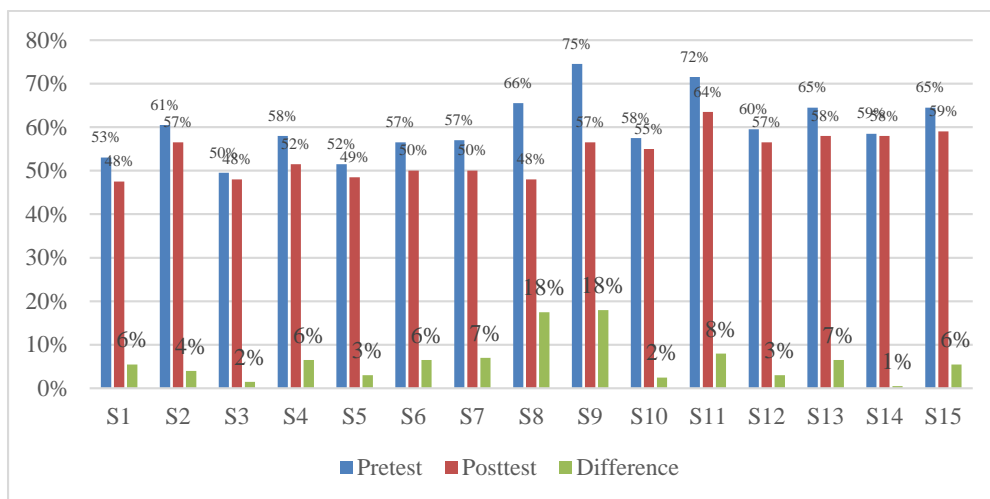


Figure 1. Percentage of Sample Emotions on Pretest, Posttest, and Difference

Based on the graph above, the results of the pretest, posttest, and individual differences in athletes were obtained with a decrease in the posttest, so it can be concluded that MGA imagery training can influence the decrease in emotions in the feelings of pencak silat martial arts athletes.

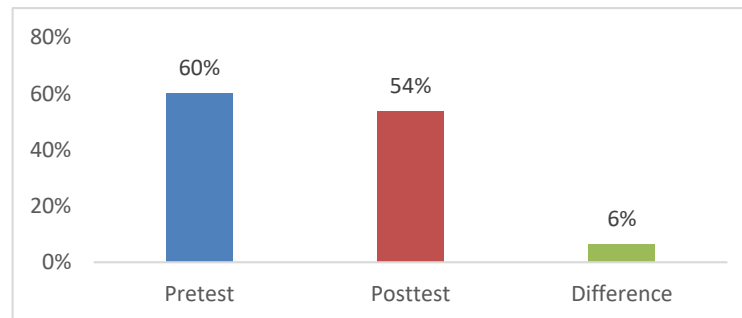


Figure 2. Overall Emotion Percentage on Pretest, Posttest, and Difference

Based on the graph above, the results of the pretest-posttest and the overall difference between the athletes were obtained with a pretest score of 60%, then a decrease in the posttest of 54% with an average difference of 6%, so it can be concluded that MGA imagery training can influence the decline in the overall emotional feelings of martial arts athletes.

Discussion

All athletes will have different levels of emotion and emotional characteristics predict the use of imagery ([Budnik, 2014](#)), especially emotion as a negative predictor. Apart from that, several other emotional characteristics are related to motor imagery skills ([Tarnowski, 2020](#)). Emotionality not only has a direct impact on reducing self-confidence. Moreover, emotionality has a negative impact, but there is also a positive axis that supports imaging abilities in the analyzed population of team and individual disciplines, but this effect is limited by the type of sports discipline ([Cumming, 2018](#)).

If athletes have positive emotional characteristics, they will use imagery positively and also show more confidence in the training program presented ([Octavianingrum & Ina Savira, 2022](#)). The study ([Quinton, 2018](#)) found that the ability to master positive and negative images mediated the relationship between self-confidence and challenge and threat appraisals but also the relationship between confidence and cognitive anxiety intensity. Likewise, imagery mastery is a mediator between more specific types of self-confidence and performance ([Quinton, 2019](#)).

Meanwhile, athletes certainly have a different mentality, including feelings of emotion. This is also supported by ([Budnik, 2021](#)) when athletes focus on experiencing negative

emotions, which are slightly related to imagery or mentality within themselves. Imagery ability training is best predicted through a combination of visual imagery vividness with certain factors: regularity, autonomy, and emotional stability ([Leeuwis, 2021](#)). The author is interested in imagery specifically on MGA to channel positive emotions which is also supported by previous research, MGA imagery can facilitate positive emotions and decision-making performance when athletes are under physiological stress ([Spindler, 2019](#)).

This research investigates whether there is an influence of Motivational General Arousal (MGA) on reducing the emotions of pencak silat athletes. One very important role in athletes' performance is the role of their psychology, so it is important to deepen knowledge of this mental area to be used in daily training performance ([Suica, 2022](#)). Mental ability with imagery training Motivational General Arousal (MGA) is an individual's ability to form vivid and controllable images and store them for sufficient time to produce the desired exercise ([Budnik, 2022](#)). The use of imagery in training is part of mental training, this includes the process of internal or external images of motor exercises, movements, and characteristics of certain disciplines ([Yadolahzadeh, 2021](#)).

It seems that the emotional MGA that occurs has the power to influence athletes' behavior ([Güzel, 2020](#)), concluding that experiential processes, such as imagining and daydreaming play an important role in destination selection behavior creating emotional ties to trigger a connection with the destination ([Hossny, 2017](#)). Apart from that, the sequential push and pull process is often imagined or imagined, so the push factor is seen as more important because it is related to the personal desire that initiated the process ([Xu & Chan, 2016](#)). MGA helps athletes reduce their emotions by motivating images of athletes who have made big names and become champions. This reduces the emotions of pencak silat athletes and makes them more motivated so they can become great pencak silat athletes.

CONCLUSION

Based on data analysis, the author can conclude that the MGA form of training is recommended to be applied in the world of sports because this form of mental training can help athletes perform optimally when the athlete's emotions can be self-regulated and focused on the match despite internal and external pressure. Apart from that, this is confirmed by the sample graph and as a whole, where athletes have an emotional condition above 50%, which indicates that the athlete has high emotions during competition preparation. The author suggests to pencak silat trainers to apply MGA in training sessions, especially when athletes feel in a high emotional state.

REFERENCES

- Anuar. (2017). Emotion Regulation Predicts Imagery Ability. *Imagination, Cognition and Personality*, 36(3), 254–269. <https://doi.org/10.1177/0276236616662200>
- Azizah, F. F., & Jannah, M. (2020). The effect of autogenic meditation on emotion regulation in fencing athletes. *Jurnal Penelitian Psikologi*, 07(02), 62–67. <https://ejournal.unesa.ac.id/index.php/character/article/view/34121>
- Barker. (2024). Dietary restraint and emotional eating among elite/international combat sport athletes. *International Journal of Sport and Exercise Psychology*, 1–18. <https://doi.org/10.1080/1612197X.2024.2308884>
- Budnik. (2014). The Imagination in Sport Questionnaire – reliability and validity characteristics. *Current Issues in Personality Psychology*, 2(2), 68–80. <https://doi.org/10.5114/cipp.2014.44303>
- Budnik. (2021). Spotlight on the link between imagery and empathy in sport. *Sport Sciences for Health*, 17, 1–10. <https://doi.org/10.1007/s11332-020-00722-7>
- Budnik. (2022). Does Imagery Ability Matter for the Relationship Between Temperament and Self-Confidence in Team and Individual Sport Disciplines? *Frontiers in Psychology*, 13(June), 1–10. <https://doi.org/10.3389/fpsyg.2022.893457>
- Cumming. (2018). Fintech venture capital. *Corporate Governance: An International Review*, 26(5), 374–389. <https://doi.org/10.1111/corg.12256>
- Ezumah, C. (2022). *Mental Imagery and Performance in Athletes* [California State University]. <https://doi.org/10.5281/zenodo.7325629>
- Febrianty, M. F., Purnamasari, I., & Novian, G. (2021). Analysis of Psychological Aspects of Taekwondo Athletes in Training Phase. *Journal of Physical Education, Sport, Health and Recreation*, 10(3), 2021. <http://journal.unnes.ac.id/sju/index.php/peshr>
- Güzel. (2020). Push-motivation-based emotional arousal: A research study in a coastal destination. *Journal of Destination Marketing and Management*, 16(March), 100428. <https://doi.org/10.1016/j.jdmm.2020.100428>
- Hossny, P. G. &. (2017). Understanding the Relationships between Tourists' Emotional Experiences, Perceived Overall Image, Satisfaction, and Intention to Recommend. *Journal of Travel Research*, 56(1), 41–54. <https://doi.org/10.1177/0047287515620567>
- Klonsky. (2019). The Multidimensional Emotion Questionnaire (MEQ): Rationale and Initial Psychometric Properties. *Journal of Psychopathology and Behavioral Assessment*, 41(3), 409–424. <https://doi.org/10.1007/s10862-019-09741-2>
- Komarudin, Paramitha, S. T., Ramadhan, M. G., & Novian, G. (2022). Increasing mental toughness through COVID-19 gymnastics in adult people. *Journal Sport Area*, 7(3), 354–

360. [https://doi.org/10.25299/sportarea.2022.vol7\(3\).9080](https://doi.org/10.25299/sportarea.2022.vol7(3).9080)
- Leeuwis. (2021). Vividness of Visual Imagery and Personality Impact Motor-Imagery Brain Computer Interfaces. *Frontiers in Human Neuroscience*, 15(April), 1–16. <https://doi.org/10.3389/fnhum.2021.634748>
- Marsha, A., Januarumi, F., & Wijaya, M. (2021). Analisis Tingkat Kecemasan Berlatih di Masa Pandemi Covid 19 Pada Atlet Rugby Kalimantan Timur. *Jurnal Prestasi Olahraga*, 4(5), 113–118. <https://ejournal.unesa.ac.id/index.php/jurnal-prestasi-olahraga/article/view/39653>
- Moll, T., & Davies, G. L. (2021). The effects of coaches' emotional expressions on players' performance: Experimental evidence in a football context. *Psychology of Sport and Exercise*, 54(May 2020), 101913. <https://doi.org/10.1016/j.psychsport.2021.10191>
- Octavianingrum, W., & Ina Savira, S. (2022). Hubungan Kepercayaan Diri Dengan Regulasi Emosi Pada Atlet Pencak Silat Puslatda Jawa Timur. <https://ejournal.unesa.ac.id/index.php/character/article/view/47002>
- Pratama, R., Hardiyono, B., Muchlisin, A., Pasaribu, N., Darma, U. B., Bhayangkara, U., & Raya, J. (2020). Pengaruh Latihan Self-Talk dan Imagery Relaxation terhadap Konsentrasi dan Akurasi Tembakan 3 Angka. *Jurnal Altius*, 9(1), 47–56. <https://ejournal.unsri.ac.id/index.php/altius/article/view/11492>
- Quinton. (2018). Investigating the mediating role of positive and negative mastery imagery ability. *Psychology of Sport and Exercise*, 35, 1–9. <https://doi.org/10.1016/j.psychsport.2017.10.011>
- Quinton. (2019). Investigating the protective role of mastery imagery ability in buffering debilitating stress responses. *Frontiers in Psychology*, 10(JULY), 1–12. <https://doi.org/10.3389/fpsyg.2019.01657>
- Rhodes. (2022). Applied imagery for motivation: a person-centred model. *International Journal of Sport and Exercise Psychology*, 20(6), 1556–1575. <https://doi.org/10.1080/1612197X.2021.1987959>
- Riyadi. (2019). Pengaruh Metode Latihan Imagery terhadap Kosentrasi dan Keterampilan Bermain Sepakbola. *Jurnal Kepelatihan Olahraga*, 11(1), 43–50. <https://doi.org/10.17509/jko-upi.v11i1.16825>
- Saputra, M. Y., Mulyana, Komarudin, & Sartono, H. (2017). Optimization of pencak silat athletes coordination through brain jogging. *Journal of Physics: Conference Series*, 755(1), 8. <https://doi.org/10.1088/1742-6596/755/1/011001>
- Simons. (2023). Coach-athlete relationship, social support, and sport-related psychological

- well-being in National Collegiate Athletic Association Division I student-athletes. *Journal for the Study of Sports and Athletes in Education*, 17(3), 191–210. <https://doi.org/10.1080/19357397.2022.2060703>
- Simonsmeier. (2021). The effects of imagery interventions in sports: a meta-analysis. *International Review of Sport and Exercise Psychology*, 14(1), 186–207. <https://doi.org/10.1080/1750984X.2020.1780627>
- Spindler. (2019). Motivational-general arousal imagery does not improve decision-making performance in elite endurance cyclists. *Cognition and Emotion*, 33(5), 1084–1093. <https://doi.org/10.1080/02699931.2018.1529656>
- Suica. (2022). Imagery ability assessments: a cross-disciplinary systematic review and quality evaluation of psychometric properties. *BMC Medicine*, 20(1). <https://doi.org/10.1186/s12916-022-02295-3>
- Syambas, D. Y., Saputra, Y. M., & Dinangsit, D. (2023). *Hubungan Self-Esteem Dan Motivasi Dengan Performa Pada Atlet Futsal Kabupaten Sumedang The Relationship Between Self-Esteem And Motivation With Performance In Futsal Athletes In Sumedang District*. 12(2), 300–310. <https://altius.ejournal.unsri.ac.id/index.php/altius/article/view/12>
- Tamminen. (2017). No emotion is an island: an overview of theoretical perspectives and narrative research on emotions in sport and physical activity. *Qualitative Research in Sport, Exercise and Health*, 6778, 0. <https://doi.org/10.1080/2159676X.2016.1254109>
- Tamminen. (2022). A review of the interpersonal experience, expression, and regulation of emotions in sport. *International Review of Sport and Exercise Psychology*, 0(0), 1–38. <https://doi.org/10.1080/1750984X.2022.2132526>
- Tarnowski. (2020). Eye-Tracking Analysis for Emotion Recognition. *Computational Intelligence and Neuroscience*, 2020. <https://doi.org/10.1155/2020/2909267>
- Tur-Porcar, A., & Ribeiro. (2020). The Role of Emotions and Motivations in Sport Organizations. *Frontiers in Psychology*, 11(May), 1–8. <https://doi.org/10.3389/fpsyg.2020.00842>
- Xu, J., & Chan, S. (2016). A new nature-based tourism motivation model: Testing the moderating effects of the push motivation. *Tourism Management Perspectives*, 18, 107–110. <https://doi.org/10.1016/j.tmp.2016.01.001>
- Yadolahzadeh, A. (2021). The role of mental imagery and stress management training in the performance of female swimmers. *Atena Journal of Sports Sciences*. Year, 3, 1–11. <https://atenajournals.com/ajss/article/view/25>