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The Effectiveness of Imagery Intervention on Reducing Competitive Anxiety Levels in Indonesian Army Shooting Athletes

Muchamad Ginanjar Pratama Sudrajat [1], Eneng Nurlaili Wangi [2], Irfan Fahmi [3]
Universitas Islam Bandung[1,2,3]
Email: ginanjarpratama1113@gmail.com[1], eneng.nurlailiwangi@unisba.ac.id[2], irfan.fahmi@uinsgd.ac.id[3]

ABSTRACT

Competition tests athletes by demanding peak performance under pressure from both their environment and themselves, aiming for victory. One common challenge they face is Competitive Anxiety, a response to perceived threats in competitive situations, leading to worry or stress (Martens, 1977). The ASEAN Armies Rifle Meet (AARM) is the highest-level competition for Indonesian Army marksmen. This study examines the effectiveness of the Mental Imagery Technique in reducing competitive anxiety among female AARM athletes. This cognitive-based intervention uses mental visualization of past experiences to enhance performance. Using an experimental one-group pretest-posttest design, the study involved five participants (n=5), with data analyzed through a Paired T-Test. Results showed a significant reduction in Competitive Anxiety scores post-intervention (Asymp. sig 0.000 < 0.05). N-Gain scores indicated moderate effectiveness for two respondents (-69% and -60%) and high effectiveness for three respondents (>76%). These findings confirm that the Mental Imagery Technique effectively reduces competitive anxiety in female pistol shooters at AARM. This study suggests that mental imagery is a valuable psychological strategy for managing anxiety in high-pressure sports, particularly for female athletes in precision disciplines like shooting.

KEYWORDS *Shooter athletes, female athletes of the ASEAN Armies Rifle Meet (AARM), competitive anxiety, Mental Imagery Technique, military, soldiers, Indonesian Army.*

INTRODUCTION

Being a professional, reliable, and *militan* soldier is an obligation that every soldier must uphold (Herdiansyah, 2022; Irmansyah, 2019; Jamshidi, A., 2011; Muchsin, 2020; Mother, 2023). To achieve this goal, in pursuing basic and further education,

TNI soldiers are always equipped with special abilities (Bsa, 2019). One of the essential abilities that must be possessed by TNI soldiers is shooting, especially for soldiers of the Indonesian National Army (*TNI-AD*), because their operational area is on the ground (Finch, K. K., 2022). Therefore, shooting ability for *TNI-AD* soldiers is an absolute must-have, alongside tactical skills and combat techniques (Al Amin, 2020).

When a female athlete in the ASEAN Armies Rifle Meet (*AARM*) experiences high anxiety during preparation and competition, it is very likely that she will make mistakes and not perform at her best (Ong, N. C., 2021). Thomas W. Brilitt (2006) explained in his book the importance of training soldiers' minds to improve focus and concentration, which helps overcome distractions and minimize negative perceptions in stressful situations (Matsumoto, 2011). Thus, female athletes of the *AARM* need interventions to reduce anxiety levels. One effective intervention is the use of imagery techniques (Karimian, 2010; Parker2011; Palazzolo, 2019; Riki S, 2023).

Mental Imagery technique is a cognitive-based intervention in which individuals reuse experiences in their thinking (Vealy & Geenleaf, 2001). Through imagery techniques, athletes can recreate images of past experiences, such as recalling games they have won (Correia Marco, 2019). Additionally, athletes can create new experiences by reconstructing images stored in memory into new scenarios (Mellieu, 2023).

This aligns with research by Vealey and Greenleaf (2001), which explains that the more senses involved in imagery techniques, the clearer the image formed and the more effective the technique is in reducing anxiety before competition. By creating mental images, external stimuli are no longer necessary (Miftah Fariz Prima Putra, 2022). Research by Ciptaningtias (2012) revealed that imagery training effectively reduces competitive anxiety in badminton athletes.

Furthermore, research by Sholihkin, Nurkholis, and Miftahkhul (2019) showed that progressive muscle relaxation combined with imagery training effectively reduces anxiety and increases concentration in archery athletes, enabling them to aim accurately and achieve maximum target scores. Additionally, research by Addrian (2019) found that imagery training effectively helps taekwondo athletes improve specific skills, such as the *dollyo* kick.

In shooting competitions between countries, the ASEAN Armies Rifle Meet (*AARM*) is not only a platform to demonstrate shooting skills but also a benchmark of a country's military strength (Rocha, 2018; Shoenfelt, 2019; Simonsmeier, 2020). Therefore, athlete selection is selective, training is intense, and competition is tight. This often burdens female athletes in the *AARM*, making psychological coaching crucial to enhance performance and prevent defeat and despair. This is supported by research from Glauber, Antônio, José, Carla & Erick (2019), which revealed that athletes need interventions to control negative psychological reactions, maximize self-confidence, and improve individual performance.

Specifically, this study focuses on female athletes because previous research showed that female athletes performed poorly during matches due to poorly regulated anxiety. Glauber et al. (2019) also noted that no specific effective

intervention has been established for reducing competitive anxiety in female athletes.

Based on previous research, mental imagery techniques have never been applied to female athletes in the *AARM* who experience competitive anxiety. Therefore, this study aims to investigate the effectiveness of mental imagery techniques on reducing competitive anxiety in female *AARM* athletes.

The problem identified in this study is whether mental imagery techniques effectively reduce competitive anxiety in female athletes of the *AARM*. The purpose is to obtain empirical data on the effectiveness of mental imagery techniques in this context.

The results of this study can provide preliminary evidence validating evidence-based therapy, showing that mental imagery techniques can effectively reduce competitive anxiety in female *AARM* athletes.

The practical benefits are: (1) serving as psychoeducation for psychologists and sports psychology practitioners assisting athletes with competitive anxiety in the *AARM*, and (2) providing input to support efforts to reduce competitive anxiety in female *AARM* athletes.

According to the theory of state-trait anxiety by Spielberger (1971), Martens (1977) proposed the Theory of Sport Competition Anxiety, defining competitive anxiety as "a tendency to perceive competitive situations as threatening and to respond with feelings of apprehension and tension."

A dimension related to competitive anxiety is self-confidence. Felz (1988, in Hardy, Gould, and Jones, 1996) defines self-confidence as "a person's belief that he or she can perform a particular activity successfully," distinguishing it from general optimism.

RESEARCH METHOD

The data collection technique is the method that researchers used to collect data in this study. In this case, the right data collection techniques are needed so that valid and reliable data are obtained. The data collection techniques used in this study are as follows:

Competitive State Anxiety Inventory-2 (CSAI-2R) Measuring Instrument. Competitive anxiety of athletes is measured through the Competitive State Anxiety Inventory-2R (CSAI-2R) measuring tool adapted from Cox, R.H., et al. (2003). CSAI-2R has been adapted into Indonesian by previous research by Saputra (2012) in his research on the effect of team integration on competitive anxiety and sports performance. CSAI-2R contains 27 items with 4-point Likert scales to measure athletes' state anxiety and consists of 3 sub-dimensions, namely: somatic anxiety (9 items), cognitive anxiety (9 items), and self-confidence (9 items). These three dimensions are multidimensional, where each dimension can be analyzed separately (David J. Wright, 2022).

Observation is directed at activities to pay close attention, record the phenomena that arise, and consider the relationships between the aspects in the phenomenon. The goal is to describe the setting studied, the activities that take place, the people involved in the activity, and the meaning of the events observed.

Observation is carried out in this study as a data collection technique to collect data related to human behavior, work processes, natural phenomena, and if the subject observed is not too large, as a process of individual psychology and biology (Sugiyono, 2019). Observations were made throughout the subject's meetings with the researcher.

Data processing and analysis techniques are carried out quantitatively (Ely, 2020). Quantitative processing was used to measure whether there was a difference in scores in the dependent variables between the pre- and post-treatment measurements given to the study subjects (Francisco Moreira da Silva, 2021).

To see whether the Mental Imagery Technique is effective and how effective it is in reducing the level of competitive anxiety of female athletes who shoot pistols in the ASEAN Armies Rifle Meet (*AARM*), a percentage decrease in the degree of competitive anxiety obtained from the comparison of post-test and pre-test scores was calculated, both overall and in every aspect of competitive anxiety.

The next step is to identify whether or not the distribution of data is normally distributed by testing the normality of the data. The normality test used is Shapiro-Wilk because the data sample is small, which is less than 50 ($N < 50$), and the minimum sample is $N = 3$ (Shapiro & Wilk, 1965). The level of significance chosen as the limit of data normality is 5% or 0.05, where if the normality test value > 0.05, it means that the data is normally distributed. On the other hand, if the normality test value < 0.05, it means that the data is not normally distributed.

After that, a comparison of the results of statistical calculations obtained in the pre- and post-therapy measurements was carried out using a difference test. From the results of the score comparison, it can be concluded whether the treatment given really has an effect on the reduction of the degree of competitive anxiety and is not just a coincidence.

Data analysis was carried out to answer the formulation of the problem proposed in this study, namely to see how effective the mental imagery technique is in reducing competitive anxiety in female athletes of the ASEAN Armies Rifle Meet (*AARM*). Thus, if the measurement of the level of competitive anxiety before and after treatment decreases, it can be said that the mental imagery technique is effective in reducing competitive anxiety in female athletes in the ASEAN Armies Rifle Meet (*AARM*).

There are four stages carried out in this study, namely the preparation stage, the implementation stage, the data processing stage, and the final stage.

RESULT AND DISCUSSION

In this chapter, the results of the research and discussion will be explained, namely by describing the results of the measurement of the effectiveness of *the Mental Imagery Technique* (Imaging Technique) in reducing *competitive anxiety* of female athletes who shoot the ASEAN Armies Rifle Meet (AARM). Analysis was carried out using the *Competitive State Anxiety Inventory–2 R* (CSAI-2R) measurement tool adapted from Martens, Burton, Vealey, Bump and Smith (1990).

Before discussing the results of the study, an overview of the subject, the schedule for the implementation *of the Mental Imagery Technique* (Imagery

Technique) and the results of the subject's anamnesis will be given. The results of the research will be presented in several parts along with the results of observations, interviews during *the Mental Imagery Technique* (Technique Imagery).

The subjects of the research taken are individuals who have met the characteristics that have been determined, namely, are TNI-AD female soldiers who are carrying out training camps and selection of the *ASEAN Armies Rifel Meet* (AARM) TNI-AD contingent, entering the final stage of selection at the *ASEAN Armies Rifel Meet* contingent training camp(AARM) The TNI-AD, under certain conditions, does not conduct routine shooting exercises for at least 3 months, has a competitive level of anxiety in the medium and high categories based on the CSAI-2R measurement tool and is willing to be a participant and participate in *the Mental Imagery Technique* intervention (Technique Imagery) which was carried out during 5 meeting sessions by filling out *an informed consent sheet.* The following are the identity data of the research:

Table 1. Subject Identity

No.	Aspects	Subject				
		1	**2**	**3**	**4**	**5**
1	Name	D.A	E.T	A.A	M.L	P.K
2	Gender	P	P	P	P	P
3	Age	37 Years	36 Years	26 Years	30 Years	34 Years
4	Rank	Lt. Cpl (K)	Serma (K)	Sertu (K)	Fence (K)	Fence (K)
5	Unity of Origin	Paldam XIV/Hsn	Kopassus	Kopassus	Pomdam Jaya	Tepbek Tarakan VI/2 B Bekangdam VI/Mlw
6	Marital status	Marry	Marry	Marry	Marry	Marry
7	CSAI-2R *pre-Test* results	*High Competitive Anxiety*	*High Competitive Anxiety*	*High Competitive Anxiety*	*High Competitive Anxiety*	*High Competitive Anxiety*

Therapy Implementation Schedule

The following is the schedule of therapy sessions carried out:

Table 2. Intervention Implementation Schedule

Session	Activities	Subject (1) D.A	Subject (2) E.T	Subject (3) A.A	Subject (4) M.L	Subject (5) P.K
1	*The Brief*	August 20, 2024	August 20, 2024	August 20, 2024	August 20, 2024	August 20, 2024
2	*Progressive Muscle Relaxation Training*	21 August 2024	21 August 2024	21 August 2024	21 August 2024	21 August 2024

Session	Activities	Subject (1) D.A	Subject (2) E.T	Subject (3) A.A	Subject (4) M.L	Subject (5) P.K
3	Basic Imagery exercises	August 22, 2024	August 22, 2024	August 22, 2024	August 22, 2024	August 22, 2024
4	*Cognitive Statement*	23 August 2024	23 August 2024	23 August 2024	23 August 2024	23 August 2024
5	Imagery Implementation	August 26 2024	August 26 2024	August 26 2024	August 26 2024	August 26 2024

Statistical Analysis Results

After the results of *the Competitive State Anxiety Inventory–2 R* (CSAI-2R) measurement are known, before and after the *Mental Imagery Technique* intervention (Imagery Technique) is known. Next, a data normality test was carried out. The following are the results of the data normality test using *Shapiro-Wilk.*

Table 3. Data Normality Test Results

Tests of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistics	Df	Sig.	Statistics	Df	Sig.
Pretest	.243	5	.200*	.894	5	.377
PostTest	.300	5	.161	.833	5	.146

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 4 Paired T-Test Test Results

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	Df	Sig. (2-tailed)
Pair 1	PreTest - PostTest	20.200	3.633	1.625	15.689	24.711	12.432	4	.000

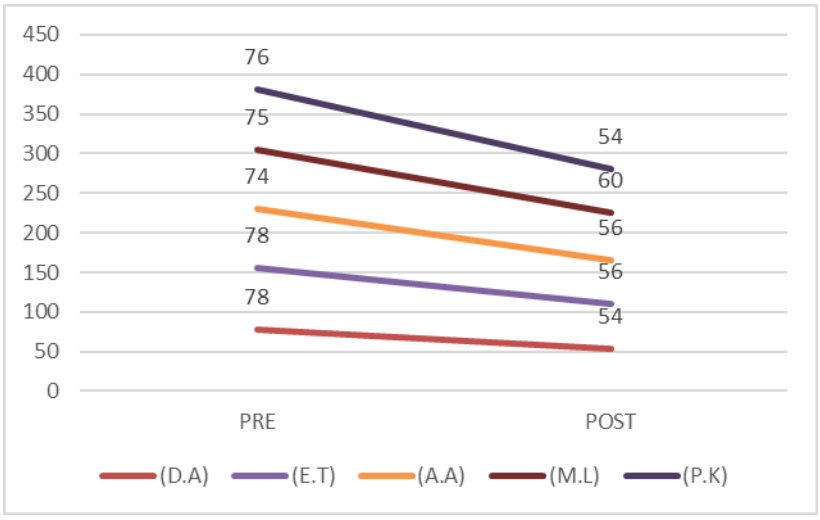
Table 5. N-Gain Test Results

Respondents	Intervention Groups		N-Gain (%)	Effectiveness
	Pretest	Posttest		
1	78	54	-109	Effective
2	78	56	-100	Effective
3	74	56	-69	Quite Effective
4	75	60	-60	Quite Effective
5	76	54	-92	Effective

Overview of Measurement Results Using the *Competitive State Anxiety Inventory–2 R* (CSAI-2R) Measuring Tool

Table 6. Overview of Measurement Results Using the *Competitive State Anxiety Inventory-2 R* (CSAI-2R) Measuring Tool

Yes	Name	Pre-Test		Post-Test		Difference
		Total Score	Category	Total Score	Category	
1	Subject 1 (D.A.)	78	*Competitive Anxiety* is high	54	*Competitive Anxiety* Low	24
2	Subject 2 (E.T.)	78	*Competitive Anxiety* is high	56	*Competitive Anxiety* Low	22
3	Subject 3 (A.A)	74	*Competitive Anxiety* is high	56	*Competitive Anxiety* Low	18
4	Subject 4 (M.L)	75	*Competitive Anxiety* is high	60	*Competitive Anxiety* Low	15
5	Subject 5 (P.K.)	76	*Competitive Anxiety* is high	54	*Competitive Anxiety* Low	22



Graph 1. Overview of Changes in the Degree of *Competitive Anxiety* in the Five Subjects

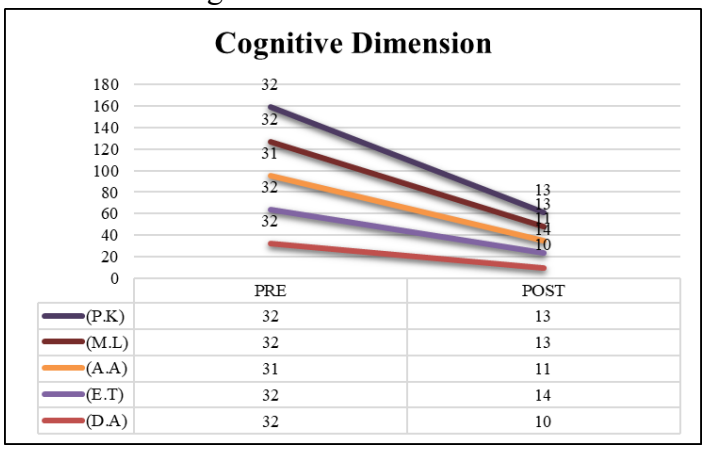
Table 7 Percentage Description of Decrease in Competitive Anxiety Level by Dimension *in the Competitive State Anxiety Inventory–2 R (CSAI-2R) scale*

Subject	Aspects	Pre-Test *Score*	Post-Test *Scores*	Difference	% Change
Subject 1 (D.A.)	Cognitive	32	10	22	61%
	Somatic	32	13	19	53%
	Confident	14	31	17	47%
Subject 2 (E.T.)	Cognitive	32	14	18	50%
	Somatic	31	13	18	50%
	Confident	15	29	14	39%
Subject 3 (A.A)	Cognitive	31	11	20	56%
	Somatic	32	10	22	61%
	Confident	11	35	24	67%
Subject 4 (M.L)	Cognitive	32	13	19	53%
	Somatic	30	12	18	50%
	Confident	13	35	22	61%

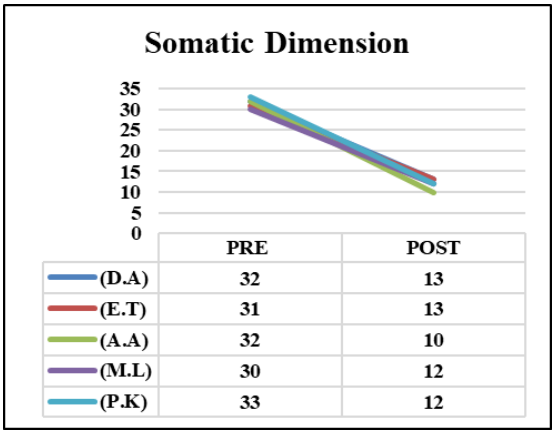
Subject	Aspects	Pre-Test *Score*	Post-Test *Scores*	Difference	% Change
Subject 5 (P.K.)	Cognitive	32	13	19	53%
	Somatic	33	12	21	58%
	Confident	11	29	18	50%

Based on the data above, in general, it can be seen that in each aspect each subject experienced a decrease after being given *the intervention of the Mental Imagery Technique* (Imagery Technique).

Furthermore, the following will explain the changes in scores in each dimension before and after the *Mental Imagery Technique* intervention, which is visualized in the form of a diagram as follows:



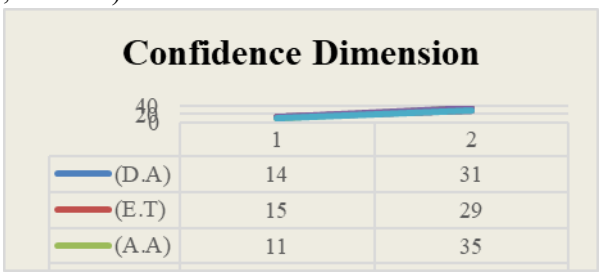
Graph 1. Overview of Cognitive Dimension Decline in All Five Subjects



Graph 1. Overview of Somatic Dimensional Decline In all five subjects

Based on the graph above, an illustration is obtained that in each subject there is a change in score at the beginning of the measurement (Pre-Test) and after (Post-Test) the *intervention of the Mental Imagery Technique* (Imagery Technique) is given. In the Somatic dimension, when viewed based on the graph, it generally

tends to lead to a decrease in score after being given *Mental Imagery Technique* intervention (Thomas, V. 2015).



Graph 3. Overview of Improving the Confidence Dimension of the Five Subjects

Based on the graph above, an illustration is obtained that in each subject there is a change in score at the beginning of the measurement (Pre-Test) and after (Post-Test) the *intervention of the Mental Imagery Technique* (Imagery Technique) is given. In the Confidence dimension, when viewed based on the graph, in general, tends to lead to an increase in scores after being given *Mental Imagery Technique* intervention.

Based on the data in the table and graph above, it can be concluded that the three dimensions of the *Competitive State Anxiety Inventory-2 R* (CSAI-2R) measurement tool used in this study to measure the degree of *competitive anxiety* before and after *the Mental Imagery Technique* (Imagery Technique) intervention were given to the five participants. Based on the data, it was found that two dimensions decreased (cognitive dimension and somatic) and one dimension experienced an increase (the confidence dimension).

The difference in the magnitude of this decline occurs due to differences in the internal motivation of the research subjects to change and how much effort the subjects make to achieve the desired conditions. One of the causes of the difference in motivation between subjects is goals that are clearly and measurably set, so that the efforts made to change become more significant.

In supporting his role as a TNI-AD soldier, soldiers who are selected to be an athlete in the *ASEAN Armies Rifle Meet* (AARM) competition is a pride for their unit and their ability can be a benchmark for success for their unit to form and create reliable and professional soldiers. In addition, soldiers who are selected as athletes in the *ASEAN Armies Rifle Meet* (AARM) competition is one of the highest achievements they can achieve in their career journey in the military world. This is because this competition can provide the dikat of soldiers with the best shooting skills in their units, recognized nationally and also internationally.

However, shooting athletes who have been members of the *ASEAN Armies Rifle Meet* (AARM) competition team are often faced with various conditions and situations that often hinder athletes from fulfilling the routine schedule that has been determined by the coach. One of the things that is often an obstacle for athletes to be able to perform with their best performance, one of them is the demands of duty

as a soldier who is ready to receive the call of state duty at any time so that the progress and development of the athletes' shooting ability is often not in accordance with the goals set both individually and the goals set by the coach.

In addition to her image as a soldier and female athlete who has participated in the *ASEAN Armies Rifle Meet* (AARM) competition before, individually female athletes demand that they be able to show their best abilities even after a long time of not doing regular training. This condition then raises anxiety for female shooter athletes to be able to give their best performance and win the *ASEAN Armies Rifle Meet* (AARM) competition in the future.

In the preparation stage, the female athletes of the ASEAN Armies Rifle Meet (AARM) received various demands and expectations, both from themselves and from their environment. In addition, AARM female athletes also face additional challenges as a TNI-AD soldier. The dual role of soldiers and athletes creates a unique pressure, where they are required to always be ready to carry out the duties of the country while still preparing themselves for competition. The conflict between the need for military duty and the need to train often hinders their ability to achieve optimal performance. The high expectations of the unit and coaches to bring the good name of the institution add to the complexity of the pressure they feel.

On the other hand, female athletes of the ASEAN Armies Rifle Meet (AARM) have their own burden as described above, because they will appear individually in the competition and often female athletes of the ASEAN Armies Rifle Meet (AARM) are worried that they will not be able to show their best performance so that this can then damage their image as a shooter athlete who has won the ASEAN Armies Rifle Meet (AARM) competition in the past few years and carrying the name of their respective units. Failure in a match is not only a matter of losing or winning, but it can also affect their credibility as military personnel. While civilian athletes generally face more limited social expectations in their sports environment.

This dual role also exacerbates the competitive anxiety felt by athletes. As soldiers, they often feel worried about not being able to meet the expectations of the trainer due to tasks that cannot be postponed. This mental strain directly impacts cognitive anxiety, where athletes often feel afraid of failure and worry about negative judgments from their military environment. In the somatic aspect, physical fatigue from military duty often exacerbates physiological responses, such as increased heart rate, irregular breathing, and muscle tension, all of which greatly affect athletes' performance in high-precision sports such as shooting.

In the face of these dual role challenges, an interventional approach is needed that is not only able to overcome competitive anxiety in general but also assists athletes in managing the pressure of their dual responsibilities. *The Mental Imagery Technique* offers a relevant solution, as it allows athletes to visualize the game scenario in a positive way and focus on the goal they want to achieve, without being distracted by the pressure of military duty.

One of the interventions that can reduce the symptoms of competitive anxiety is *the Mental Imagery technique* developed by Vealy & Geenleaf (2001). Based on the results of the study, the results were obtained that the five female athletes of the ASEAN Armies Rifle Meet (AARM) experienced high *competitive anxiety* both before and during the match. Based on the results of the interventions that have been given and the results of data processing, in general, when viewed in table 4.5, there is a change in scores in the five subjects between pre-test scores and post-test scores, and when viewed in graph 4.1, it shows that there is a descending line between the pre-test and post-test points. In other words, in general, the five subjects experienced a decrease in competitive *anxiety* after being given *the Mental Imagery technique* intervention when viewed from the overall score using *the Competitive State Anxiety Inventory–2 R* (CSAI-2R) measuring tool.

Furthermore, after the Paired T-Test was carried out, the result was obtained that Asymp.sig (Two-sided p) was 0.000. In other words, the test results showed that Asymp.sig (Two-sided p) was 0.000 < 0.05, thus it can be concluded that there is a significant difference between before being given the *intervention treatment of the Mental Imagery Technique* (Imagery Technique) to reduce the level of competitive anxiety of female athletes who shoot *the ASEAN Armies Rifle Meet (AARM).*

This is strengthened by the results of the processing of the N-Gain statistical test conducted by the researcher which obtained the results that 2 respondents showed an N-gain score of -69% and -60%, where in the score was in the range of the interpretation category of N-Gain effectiveness with a score of 56-75% which showed that *the intervention of the Mental Imagery Technique* (Imagery Technique) to reduce the level of *competitive anxiety* female athletes who shoot pistols in the ASEAN Armies Rifle Meet (AARM) are quite effective. Furthermore, 3 other respondents showed an N-gain score of > 76% which shows that the *Mental Imagery Technique* intervention to reduce the level of *competitive anxiety* of female athletes who shoot the ASEAN Armies Rifle Meet (AARM) is relatively effective. This is in line with previous research, conducted by Williams et al. (2010) showing that imagery is effective in improving athletes' performance through reducing anxiety, especially in sports that require high precision such as shooting.

Furthermore, the percentage change in general can also be seen in table 4.6 showing that there is a change in each aspect which when viewed in graphs 4.2, 4.3 shows that there is a descending line between the pre-test and post-test points in each of the cogitative and somatic dimensions while in graph 4.4 shows that there is an ascending line between the pre-test and post-test points in the self-confidence dimension.

Based on these data, it can be seen that the *Mental Imagery Technique* intervention exerts almost an equal effect on the cognitive and somatic dimensions, with an average change of above 54%. Meanwhile, in the confidence dimension, despite the increase, this percentage of change is relatively smaller compared to the other two dimensions of competitive anxiety. The average increase on this

dimension is about 52.8%. This indicates that this technique is more effective in dealing with aspects of cognitive and somatic anxiety compared to increasing the confidence of athletes. This suggests that this technique can be a useful tool in anxiety management, particularly in cognitive and somatic aspects. Specifically, it can be seen in table 4.8 which shows that in each individual there are changes in each aspect with different percentages.

However, the increase in self-confidence in this study was relatively small compared to changes in the cognitive and somatic dimensions. This can be caused by a more complex nature of self-confidence and takes longer to develop compared to decreased anxiety. Self-confidence is influenced by a variety of factors, including competition experience, recognition from the environment, and previous successes. Although *the Mental Imagery Technique* helps in building confidence through positive visualization, this effect may require additional reinforcement through real experiences, such as success in a match or recognition from coaches and teammates. In addition, the pressure of dual roles as warriors and athletes can be an obstacle to internalizing self-confidence in depth, so the impact of interventions on this dimension is not as great as on cognitive and somatic anxiety

Furthermore, the results of the study get an overview related to the profiles of the five *female athletes of the ASEAN Armies Rifle Meet* (AARM) where the five female athletes of *the ASEAN Armies Rifle Meet* (AARM) have a history of achievements in their fields, but often face mental challenges that make their performance decrease or be unstable in the lead-up to and during the match. The anxiety they experience usually comes up a while before or even during a game. This is exacerbated by high expectations from the unit, coaches, team, and themselves to perform perfectly.

Specifically, this can be seen in subject 1, D.A. D.A. D.A. is an athlete with experience in various shooting championships, but always experiences extreme anxiety before the game. Physical symptoms such as shaking hands and irregular breathing often cause him to lose focus while aiming. A similar experience was experienced by Subject 2, E.T., who revealed that often the first shot was decisive for his overall performance. When the first shot missed, E.T. immediately felt insecure and it negatively affected his entire series of shots. Subject 3, A.A., revealed that feelings of anxiety even arise when taking simulated scores in front of the coach, which then affects body posture and concentration during the match.

The results of the *Mental Imagery Technique* intervention showed a significant reduction in cognitive and somatic anxiety among the five athletes. Most subjects showed positive changes that reflected the effectiveness of this technique in helping athletes cope with competitive anxiety and prepare for games. This technique has a positive impact not only in the context of shooting, but also in building a strong mentality for the five female athletes of the ASEAN Armies Rifle Meet (AARM)

The occurrence of these various changes is caused by *the Mental Imagery Technique* which provides a specific stimulus or target to form a picture of a

situation that can increase the potential that athletes have from within themselves to be able to master the environment that is emerging in the process of *the Mental Imagery Technique* session last. This is in line with research conducted by Kartina, Zermena, and Diana (2024) which proves that when providing specific stimuli to the *Mental Imagery Technique process,* confidence in athletes will increase so that indirectly *the Mental Imagery Technique* has an impact on cognitive and somatic aspects which can then improve athletes' performance during matches.

This study proves that *the Mental Imagery Technique* is an effective intervention in reducing competitive anxiety levels in female *athletes in the ASEAN Armies Rifle Meet (AARM*). This technique not only helps reduce anxiety on a cognitive and somatic level, but also significantly increases the confidence of athletes. Through relaxation exercises, detailed visualization of match situations, and the application of *counter statements*, athletes become more mentally and physically prepared to face the pressure of the match.

The results of this study show the effectiveness of *the Mental Imagery Technique* in reducing competitive anxiety in female athletes with AARM, which consistently supports the basic theory of imagery put forward by Vealy & Greenleaf (2001). The theory states that imagery techniques can help athletes optimize performance through visualization of positive experiences. The significant decrease in anxiety levels in the cognitive and somatic dimensions, as well as the increase in self-confidence found in this study confirm the mechanism of action of imagery as described in the theory.

Overall, the results of this study are not only consistent with previous research findings on the effectiveness of *the Mental Imagery Technique* in reducing competitive anxiety, but also provide a new perspective through the context of a specific subject. The uniqueness of this research makes an important contribution to enriching the understanding of the application of imagery techniques in the context of high-precision sports, particularly in female athletes in military environments. While there are some aspects that require further research, the results provide strong empirical support for the use of imagery as a psychological intervention in shooting sports and has the potential to be applied to other high-precision sports.

The results of this study provide empirical evidence relevant to the *Processing Efficiency Theory* proposed by Eysenck & Calvo (1992), especially related to the interaction between anxiety, cognitive processing efficiency, and performance. The findings that athletes experienced a decrease in cognitive and somatic anxiety after *the Mental Imagery Technique* intervention supported *the prediction of the Processing Efficiency Theory* that attention management can reduce the negative impact of anxiety on performance. This technique helps athletes shift focus from internal concerns towards positive visualization and strategy planning, thereby increasing the cognitive processing efficiency required in shooting sports. Thus, *Processing Efficiency Theory* provides a strong theoretical

framework to understand the working mechanism of *the Mental Imagery Technique* in overcoming competitive anxiety.

In addition to supporting the basic theory of *imagery*, this research also makes practical contributions in the context of military athletes facing dual roles. Mental *Imagery Technique interventions* have been shown to be effective in helping athletes manage the pressures arising from the double expectations of being warriors and athletes. Therefore, institutional support, such as adjustment of training schedules and tasks, is needed to maximize the effectiveness of these interventions. A comprehensive approach will not only improve athletes' performance but also help them maintain a balance between military and sporting responsibilities.

This research makes a unique contribution to the sports psychology literature focusing on female athletes in the military realm of the *ASEAN Armies Rifle Meet* (AARM) shooting contingent. This complements previous studies such as those conducted by Cumming & Williams (2012) showing positive results found in this study indicating that the effectiveness of imagery is universal and not limited by the gender or background of the subject. These findings broaden our understanding of the application of imagery techniques in a variety of sports contexts.

In research, however, there are limitations or weaknesses. There are limitations or weaknesses, some aspects that require further research. The study did not specifically analyze the relationship between athletes' experiences and the effectiveness of interventions, which could be considered for future research as one of the important factors to get a comprehensive picture of the data. In addition, this study has not measured the long-term impact of imaging interventions, which is an aspect to be understood in the development of sustainable intervention programs.

CONCLUSION

Based on the results of the research data and discussions that have been carried out, several conclusions can be drawn as follows: (1) Imagery intervention is effective in reducing the level of competitive anxiety in *TNI AD* pistol shooter female athletes of the ASEAN Armies Rifle Meet (*AARM*) contingent. (2) The decrease in the level of anxiety in the cognitive and somatic anxiety aspects has a percentage of significance that is equally significant in female pistol shooter athletes of the *TNI AD* contingent in the ASEAN Armies Rifle Meet (*AARM*).

The researcher also recommends that future researchers use the experimental pretest-posttest control group design method to obtain a more precise value of the effectiveness of the Mental Imagery Technique intervention (Imagery Technique) in reducing competitive anxiety. Additionally, it is recommended that future research expand the sample to include other types of extreme sports competitions in the military world that have the potential to cause competitive anxiety, such as military freefall.

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