

## Differences in the effect of hypnotherapy on stress levels of pencak silat athletes based on gender

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### Abstract

This study aims to 1) find out the effect of hypnotherapy using direct suggestion techniques and regression techniques on reducing stress levels in pencak silat athletes, 2) find out the differences in the effect of hypnotherapy on male and female athletes, and 3) find out whether there is an interaction between hypnotherapy techniques and gender on stress levels in pencak silat athletes. This research is quantitative descriptive research with a quasi-experimental approach. The research design uses a 2x2 factorial. The subjects were 16 athletes (8 males and 8 females) of the Ngawi District martial arts aged 18-21. Perceived Stress Scale (PSS-10) as an instrument to measure stress levels. The data was then analyzed using a two-way ANCOVA test assisted by SPSS version 23. The results showed that 1) There was no difference in the effect of direct suggestion technique hypnotherapy and regression techniques on stress levels in male and female pencak silat athletes (Sig. 0.653>0,05), 2) There is a difference in reducing stress levels between male and female athletes (Sig. 0.005 <0.05), and 3) There is an interaction between hypnotherapy techniques and gender on decreasing stress levels in male and female pencak silat athletes (0.003 <0.05). In conclusion, hypnotherapy effectively reduces stress levels before competing in male and female athletes. The direct suggestion technique has a better effect on reducing stress in male subjects, while the regression technique has a better effect on female subjects.

**Keywords:** hypnotherapy, direct suggestion technique, regression technique, stress, mental health, pencak silat.

### INTRODUCTION

In recent decades, mental health issues, especially stress in athletes, have become a trending topic. In its simplest definition, stress can be described as a state of physical and psychological activation in response to external demands that exceed one's ability to cope and require one to adapt or change behavior (Lopes Dos Santos, et al., 2020). Stress can be part of the effect of training that comes from continuous physical pressure (Hamlin, et al., 2019). Not only from training stress can also come from outside of training, such as social relationships, lifestyle,

and the demands of targets in life (Hamlin, et al., 2019). Therefore, it is not surprising that psychological disorders are highly prevalent among elite athletes. For example, in a study of Australian athletes, almost half of the participants (46%) reported at least one mental health problem, including depression, eating disorders, and generalized anxiety disorders (Gulliver, Griffiths, Mackinnon, Batterham, & Stanimirovic, 2015).

Continuous stress causes burnout in athletes (Mheidly, Fares, & Fares, 2020). Such circumstances allow athletes to experience depression, social anxiety disorders, panic disorders, and eating disorders, which will also impact the continuity of the athlete's career (Gulliver, Griffiths, Mackinnon, Batterham, & Stanimirovic, 2015).

Some researchers try to minimize stress disorders in athletes with various methods. The application of self-determination theory to 238 student-athletes was successful in reducing stress and promoting well-being (Shannon, et al., 2019). Mindfulness training also successfully reduces anxiety in Wushu athletes (Mehrsafar, et al., 2019). Alizamar, et al., (2018) reported that hypnotherapy could reduce stress disorders.

Hypnotherapy is a branch of psychology that studies the benefits of suggestion to overcome problems of cognition (thought), affect (feeling), and behavior. Hypnotherapy uses the influence of words delivered with certain techniques. According to Rachayu & Banat (2020), the only strength of hypnotherapy is communication. Hypnotherapy is a type of mind therapy that uses hypnotic techniques to heal mental and physical ailments. In general, hypnotherapy is closely related to the working activity of the human brain. According to human brain waves, this activity varies greatly in every condition (Sugiarso, 2013). This type of hypnotherapy is carried out by providing support for solving one's psychological problems, accompanied by changing the thinking mechanism in interpreting experiences to form new perceptions and changes in behavior (Wulandari, 2016). But to form a new perception is necessary to know the root of the problem. After being analyzed, new suggestions are implanted to cultivate new perceptions, mindsets, and behavior changes. That is why

hypnotherapy is expected to reduce stress levels in a better way in this study. In the world of hypnotherapy, there are 2 main schools of thought: suggestion-based hypnotherapy and hypnoanalysis-based hypnotherapy. Suggestion-based hypnotherapy prioritizes the use of suggestions in an effort to help clients overcome problems. This school is growing rapidly on the east coast of America. Meanwhile, hypnoanalysis-based hypnotherapy prioritizes finding the root of the problem using a variety of strategies or techniques, one of which is the regression technique. This school developed on the west coast of America (Gunawan, 2006).

Indeed, several methods other than hypnotherapy are used to deal with stress, but they are less effective, and it takes a long time to feel significant changes. It is less effective because other methods do not touch the root of the problem and only play at the level of the conscious mind. Even though the source of stress in a person is stored in the subconscious mind (Hendriyanto, 2011).

This study aims to determine the hypnotherapy treatment for reducing stress levels based on gender. This study involved martial arts athletes aged 18-21 years. The results of this study are likely to reduce the stress level experienced by athletes, especially martial arts athletes.

## **METHOD**

The design or research design used was an experiment with a 2x2 factorial design (Table 1). Hypnotherapy treatment with direct suggestion technique and regression technique was given 8 times. The population in this study were IPSI-trained pencak silat athletes in Ngawi Regency. Purposive sampling was chosen to determine the sample involved. The criteria for the athletes involved were the IPSI Pencak Silat Team in Kab. Ngawi was 18-21 years old, an athlete who had competed at least at the Provincial Level, and an athlete with indications of mild, moderate, and severe stress levels after the pre-test. Based on these criteria, a sample of 16 athletes was obtained (8 males and 8 females).

**Table 1.** Research design

Manipulative Variables (a)	Attributive Variables (b)	
	Male ( $b_1$ )	Female ( $b_2$ )
Hypnotherapy Direct Suggestion ( $a_1$ )	$(a_1b_1)$	$(a_1b_2)$
Hypnotherapy Regression ( $a_2$ )	$(a_2b_1)$	$(a_2b_2)$

Information :

$a_1b_1$ : Hypnotherapy Direct Suggestion treatment for male athletes

$a_2b_1$ : Hypnotherapy Regression Treatment on male athletes

$a_1b_2$ : Hypnotherapy Direct Suggestion treatment for female athletes

$a_2b_2$ : Hypnotherapy Regression Treatment on female athletes

The stress scale in this study was measured using the Perceived Stress Scale (PSS-10) instrument written by Cohen (1994), which was adapted to use Indonesian. The PSS-10 scale consists of 10 items that cover three aspects, namely, the feeling of unpredictability), a feeling of uncontrollability, and the feeling of being overloaded (Schneider, 2020) (Table 3). The reliability test results of the stress instrument questionnaire were calculated using the Cronbach alpha coefficient formula resulting in a value of  $r\text{-count} = 0.846$ , declared reliable. The results of the validity test are shown in Table 2.

**Table 2.** Instrument validity test results

question items	Pearson Correlation	Sig. (2-tailed)	N	r-table	Conclusion
item1	0,591	0,000	32	0,349	valid
item2	0,682	0,000	32	0,349	valid
item3	0,719	0,000	32	0,349	valid
item4	0,423	0,016	32	0,349	valid
item5	0,665	0,000	32	0,349	valid
item6	0,694	0,000	32	0,349	valid
item7	0,739	0,000	32	0,349	valid
item8	0,553	0,001	32	0,349	valid
item9	0,751	0,000	32	0,349	valid
item10	0,683	0,000	32	0,349	valid

The test analysis results of the validity of the stress instrument question items concluded that of the 10 questions tested, all questions were valid and there were no invalid question items. These questions were

declared valid because the calculated R-value was more significant than the table R-value of 0.349.

**Table 3.** Instrument grid for athletes

No	The Stress Dimension	Item Distribution		Total
		Favorable	Unfavorable	
1	Unpredictable Feelings	1	4, 5	3
2	Uncontrollable Feelings	2, 6, 9	-	3
3	Depressed Feelings	3,10	7, 8	4
	<b>Total</b>	6	4	<b>10</b>

On a Likert scale, the possible answers are made more, such as "Never" (TP) = 0, "Almost Never" (1-2 times) = 1, "Sometimes" (3-4 times) = 2, "Almost often" (5-6 times) = 3, and "Very often" (more than 6 times) = 4. The ratings in the five categories of choices used by the researcher are shown in Table 4.

**Table 4.** Choice rating and category

Number	Category	Favorable Score	Unfavorable Score
0	Never	4	0
1-2 times	Almost never	3	1
3-4 times	Sometimes	2	2
5-6 times	Almost Often	1	3
> 6 times	Often	0	4

The numerical scale variables that have been obtained from PSS-10 are then converted into ordinal scales with certain cut points into 3 groups: (1) Mild stress, total score 0-13; (2) moderate stress, total score 14-26; and (3) Severe stress, total score 27-40 (Bhat et al., 2011) (Table 5).

**Table 5.** Perceived stress scale score indicator (PSS-10)

No.	Stress Level	Score
1	Light Stress	0-13
2	Moderate Stress	14-26
3	Heavy Stress	27-40

A two-way analysis of variance with the help of the SPSS 23 statistical application is used in this study to prove the hypothesis.

## RESULT

In outlining the result, one should only describe the research results of data acquired in the research or field observation and data analysis interpretation. This section is outlined without providing discussion and should be written in logical sentences. The result is applicable in the form of a table, text, or figure.

After receiving hypnotherapy treatment using the direct suggestion technique and regression technique 8 times, 16 male and female athletes underwent a final test to determine whether there was a decrease in stress levels. Descriptive data for each treatment are shown in Table 6 and Table 7.

**Table 6.** Descriptive statistics of regression hypnotherapy techniques in male

Variable	N	Min	Max	Mean	Std. Deviation
Pre-test stress level regression technique	4	13	29	20,5	6,608
Post-test stress level regression technique	4	8	16	11,0	3,464
Decreasing the stress level regression technique	4	5	13	9,5	3,416

**Table 7.** Descriptive statistics of hypnotherapy with direct suggestion techniques for female

Variabel	N	Min	Max	Mean	Std. Deviation
Pre-test stress level regression technique	4	24	31	26,5	3,109
Post-test stress level regression technique	4	8	15	11,0	2,944
Decreasing the stress level regression technique	4	13	18	15,5	2,082

Furthermore, the Anacova test was carried out to test the hypothesis, which is shown in Table 8 below.

**Table 8.** Anacova test results

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	196,500 <sup>a</sup>	3	65,500	14,692	,000
Intercept	3364,000	1	3364,000	754,542	,000
Gender	132,250	1	132,250	29,664	,000
Hypnotherapy Technique	,250	1	,250	,056	,817
Gender * Hypnotherapy Technique	64,000	1	64,000	14,355	,003
Error	53,500	12	4,458		
Total	3614,000	16			
Corrected Total	250,000	15			

a. R Squared = ,786 (Adjusted R Squared = ,733)

Based on the results of the Anacova test in Table 8, the results are interpreted as follows:

- a. The calculations using the Anacova test on the gender factor obtained a Fcount value of 29.664 with a probability of 0.000. The p-value  $<0.05$  means that there is a significant difference between stress reduction in males and females.
- b. The Anacova test calculations on the treatment factor obtained a Fcount value of 0.056, a probability of 0.817. The p-value  $>0.05$  means that there is no significant difference between the stress reduction treatment of the direct suggestion technique and the regression technique.
- c. The results of calculations using the Anacova test on the interaction factor of gender and treatment obtained a Fcount value of 14.355 with a probability of 0.003. The p-value  $<0.05$  means an interaction effect between the sexes with the direct suggestion and regression techniques. The interaction factor can be seen in Figure 1 below.



**Figure 1.** Interaction between Hypnotherapy Techniques and Gender

Based on Figure 1, it can be seen that the male sex group experienced a lower stress reduction when using the regression technique, but the stress reduction was higher when using the direct

suggestion technique. Based on this statement, the direct suggestion technique is more suitable for use in the male sex group. In the female gender, the regression technique has a higher stress reduction than the direct suggestion technique. So that in the female sex group, the regression technique treatment is preferred.

## **DISCUSSION**

The findings show that 1) there is no difference in the effect of hypnotherapy treatment with direct suggestion techniques and regression techniques on stress levels in male and female martial arts athletes of Ngawi Regency ahead of the competition, 2) There is a difference in the effect of hypnotherapy on men and women in reducing the stress level of Ngawi Regency martial arts athletes before the competition, and 3) There is an interaction between hypnotherapy techniques and gender on stress levels in male and female martial arts athletes in Ngawi Regency before the competition.

Negative thoughts will increase the work of the sympathetic nervous system. The hypothalamus sends signals to the pituitary gland to increase the hormone cortisol, a stress hormone, so that the autonomic nervous system activates the adrenal glands, which causes a person's tension ([Southwick & Charney, 2012](#)). This tension causes a person to feel depressed and stressed, commonly called anxiety.

Hypnotherapy uses suggestions to overcome psychological problems that include thoughts, feelings, and behavior, which in this case, is the problem of anxiety. Anxiety is a behavior caused by stress or pressure on humans ([Sartono et al., 2020](#)). The effect of hypnotherapy is very positive in reducing anxiety. The effect of hypnotherapy is not only to reduce anxiety in athletes but also in students who will face exams ([Hendriyanto, 2012](#)), mothers who will undergo labor ([Dewi, 2019](#)), and also anxiety in distance learning ([Suryaman, et al., 2022](#)).

These findings expand the study of hypnotherapy, which is useful for overcoming anxiety in athletes and anxiety felt by pregnant women and students in learning.

## CONCLUSION

The findings show that hypnotherapy can reduce anxiety experienced by both male and female athletes. Anxiety experienced by male athletes is more effective if treated with the direct suggestion technique, while female athletes' anxiety is more effectively reduced with the regression technique.

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