

Psychological Characteristics of Indonesian Martial Sports Athletes SEA Games 2017

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Abstract: This study aimed to obtain the psychological characteristics of Indonesian martial sports athletes. In addition, this study also revealed the differences in psychological characteristics of Indonesian athletes among martial sports group SEA Games 2017. The method used was survey with ex post facto research design. This research was conducted from February to April 2017 at Pelatnas location: Jakarta, Bandung, Sukabumi, Bogor. The population of the research was Indonesia National Training Camp athletes martial sports that would be played in SEA Games 2017. The sampling technique used purposive sampling with the criteria of athletes National Training Camp martial sports that have received Satlak Prima license. Sample totaled 93 athletes consist of 6 martial sports i.e. Taekwondo, Karate, Wushu, Pencak Silat, Boxing, and Judo. Instruments and techniques of data collected use questionnaire The Psychological Skills Inventory for Sport (PSIS-R-5). Technique of data analysis was through analysis of variance One Way Anova with significance level 0.05, continued analysis by Post-Hoc test. The results obtained showed the psychological characteristics of Indonesian martial sports athletes SEA Games 2017 in High category with mean score value of 144,58. There was a significant difference of psychological characteristics athletes among of martial sports group SEA Games 2017 with Sig. (2-tailed) value of 0.048 ($P < 0.05$), Significantly, the different results were between Boxing with Judo and Pencak Silat with Boxing.

1 INTRODUCTION

Indonesian sports accomplishment in international events continued to decline and inconsistency, even, the enforcement in year 2015 at Singapore, Indonesia was the fifth rank with 47 gold, It was Indonesia worst performance at the event sports biennial the Southeast Asia.

Evaluation of all factors causing the decline in that performance must be done comprehensively, transparently, and objectively to produce a meaningful improvement in the Coaching of a National sports. Sports coaching was not less important than the role of the scientific approach of various disciplines (Nossek, 1982). The latest sports science and technology has been able to provide the necessary detail of elite athletes to win world-class sports competitions. Many studies proved the support of sports science is one component to realize that achievement.

There are seven main theorems of sports science and one of them Sports Psychology (Haag, 1994).

This means that Sports Psychology was one of seven theoretical areas that become body of knowledge of sports science. Sports psychology was a science that applied the principles of psychology in sporting situations or environments, with the aim of improving the appearance or performance of athletes (Cox, 2012). More specifically Pate (1993) stated currently there were three basic sciences that have become sub-disciplines which supported perfect sport coaching practices, namely biomechanics, exercise psychology and sports psychology.

The success and failure of the player in the sport of competitive was largely determined by the combination of physical and mental factors. The coach believe that no less than 50% of success in sports determined by mental factors, even for sports such as golf, tennis, and figure-skating of these mental factors reached 80% to 90% (Weinberg and Gould, 2011).

High-level competition demands top quality athletes not only in terms of technique, physical, but more so in the psychological aspect. Lutan (2010)

defined Athletes must have the psychological characteristics and moral required by the sport practiced to achievers. In harsh sports such as Boxing or Taekwondo, aggressiveness must be possessed, aggressiveness here was not interpreted as a form of cruel or destructive attack, but it was tightly related to the characteristic of sport itself which required aggressive attitude (Gunarsa, 2008).

Each martial sports had different characteristics, the task of motion that must do among sports were different one another. The rules of the game between group of martial sports such as Tinju, Judo, Pencak Silat, Karate, and Taekwondo were clearly different. Gunarsa (2008) defined the psychological aspects underlain the behavior of sports activities practiced. Thus, psychologically, athletes behavior arised from each sport would form different psychological characteristics.

Other factors that influenced was the character contained in the sports. According to Najafi (2003) stated that traditional martial arts practitioners more emphasis on humility and had a high level of motivation to accomplish hard tasks than those involved in modern martial arts. The personality profile of a athlete of the martial sports had a more prominent value of discipline when compared to the value of teamwork and sportsmanship, and there is a difference from the value of sportsmanship, and teamwork between sports (Hermawati, 2014). Taekwondo athletes have a better anxiety control, team emphasis, and concentration than pencak silat, but pencak silat athletes had a high motivation compared with taekwondo (Dimiyati, 2013).

The literature review and the results study of the above showed that the psychological aspects influence on sport that athletes practiced was different between one and another. Anshel & Payne stated there are also some psychological aspects that are necessary and influence on the appearance of martial arts (Pencak Silat, Tae Kwo Do, and others) are concentration, anticipation, emotional control, self-control, confidence and fighting power (Anshel et al., 1990). The optimistic attitude was very important for sports martial athletes because it would have an impact on increased fighting power, concentration, and focus on attention (Zinseer et al., 2001). According to Mahoney state psychological aspects that potential and influence of appearance i.e. motivation, confidence, anxiety control, mental preparation, team attention, and concentration.

Mahoney et al. (1987) have used the instrument the Psychological Skill Inventory for Sport (PSIS-R-5) to compare elite athletes and non-elite athletes. Further research had developed in identifying

psychological characteristics relevant to sports (Meyers et al., 1996). Psychological characteristics are the psychological aspects attached to the athlete's self and affect the success or appearance athlete (Cox, 2012). Psychological characteristics in this study was directed to psychological skills. Thus, the instrument would be very appropriate to use in this study which would specifically distinguish the psychological characteristics of athletes among group of martial sports SEA Games 2017.

Knowledge and understanding of the athlete's psychological characteristics was very important to be known by the coaches and manager of the sport as an effort to support and prepare Indonesian athletes to achieve optimal results in SEA Games 2017. Accurate data required the coaches as an integral part of the athlete's preparation. Therefore, this research would focus on Indonesian athletes of martial sports SEA Games 2017.

2 METHODS

The method used in this research was survey method with ex post facto research design. This research was conducted from February to April 2017 at Pelatnas location: Jakarta, Bandung, Sukabumi, Bogor.

The population of the research was Indonesia National Training Camp athletes martial sports that would be played in SEA Games 2017. The sampling technique used purposive sampling with the criteria of athletes National Training Camp martial sports that have received Satlak Prima license. The totaled 93 athletes consist of 6 martial sports i.e. Taekwondo, Karate, Wushu, Pencak Silat, Boxing, and Judo.

Instruments and techniques of data collected used an instrument called The Psychological Skills Inventory for Sport (PSIS-R-5). The instrument consists of 44 questions that reveal the six psychological skills: Aspects of Motivation, confidence, anxiety control, mental preparation, team Emphasis, and concentration, which is also a single variable this study of the psychological characteristics. The scoring of the subject's response to the instrument, the score moves from one to five with attention to the nature of the questionnaire/instrument whether favorable or unfavorable.

The instrument was the first instrumen translated by an English expert; rated by three experts; and then tested against 76 PON DIY athletes because is considered to have characteristics similar to the sample. Tests are conducted with the aim of selecting items and to see how far the instruments could reveal

the variables to be measured in collecting data on actual research. The test results were analyzed items by correlating the score of each item with the total item score. Norm of R tabel 0,222 for N = 76. Thus, the items in the instrument are revealed well if the corrected total correlation value was greater than 0.222. Thus, the items in the instrument were revealed well if the corrected total correlation value is more than 0.222. Based on the results of the analysis of some items that were not good, items 14,17, 32, 33, 34, and 38. From the statistical analysis of the instrument value of cronbach alpha of 0.890. If the value of conbach's alpha is more than 0.60 then the instrument is reliable (Sugiyono, 2012).

The psychological characteristics of athlete could know the category throught the assessment criteria obtained on the athletes answer. Category criteria determination was obtained using the formula $Mi = (ST + SR)/2$ and $Sdi = (ST.-SR)/6$. Table determination criteria could be seen in the following:

Table 1: Formula of determination criteria.

Interval	Category
More (Mi + 1,8SD) s.d. (M i+ 3SD)	Very High
More (Mi 0,6) s.d. (Mi + 1,8SD)	High
More (M -0,6SD) s.d. (Mi + 0,6SD)	Medium
More (Mi-1,8SD) s.d. (Mi - 0,6SD)	Low
(Mi-3SD) s.d. (Mi-1,8SD)	Very Low

Source: (Wagiran, 2015, p.337)

Keterangan

- Mi : Mean ideal
- Sdi : Ideal Standard deviation
- ST : Maximum Score
- SR : Minimum Score

The data obtained were analyzed in accordance with the main purpose of the study, It described the psychological characteristics of athletes consisting of aspects of motivation, confidence, anxiety control, mental preparation, team Emphasis, and concentration. To answer the hypothesis used analysis of variance with One Way Anova to analyze the differences of psychological characteristics of athletes among group martial sports, followed by Post-Hoc test to identify martial sports which significantly differentiate.

3 RESULTS AND DISCUSSION

Descriptive analysis results of psychological characteristic of Indonesian martial sports Athletes SEA Games 2017, were:

Table 2: Psychological characteristics of Indonesian martial sports athletes.

Category	Frequency	Score	Mean Score	Percentage
Very High	6	985	10,59	6,45
High	78	11345	121,98	83,87
Medium	9	1116	12	9,68
Low	-			-
Very Low	-			-
Total	93	13446	144,5	100

The results of psychological characteristics of athletes in general obtained a mean score of 144.5 in the High category. Note the Frequency of Very high category 6 athletes, high category 78 athletes, medium category 9 athletes. The majority of psychological characteristics of Indonesian martial sports athletes SEA Games 2017 in category High with the percentage of 83.87%.

The psychological characteristics were described in every psychological aspects that could be seen in the following figure:

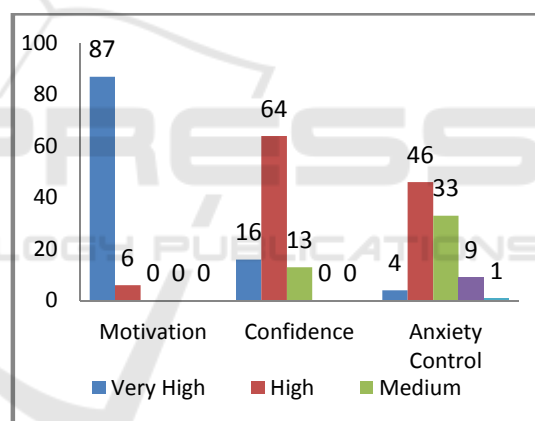


Figure 1: Frequency of Psychological Aspects athletes.

Figure 1 Showed the Motivation aspect of obtained mean score of 36.4 in the very high category. The majority of athletes on Motivation aspect in category very high of numbered 87 athletes with percentage of 93.55%; Confidence Aspect of obtained mean score of 26.8 in the high category. The majority of athletes on Confidence aspect in category high of numbered 64 athletes with percentage of 68.81%; Anxiety Control Aspect obtained mean score of 23.4 in the medium category. The majority of athletes on Anxiety Control aspect in category high of numbered 46 athletes with percentage of 49.46%.

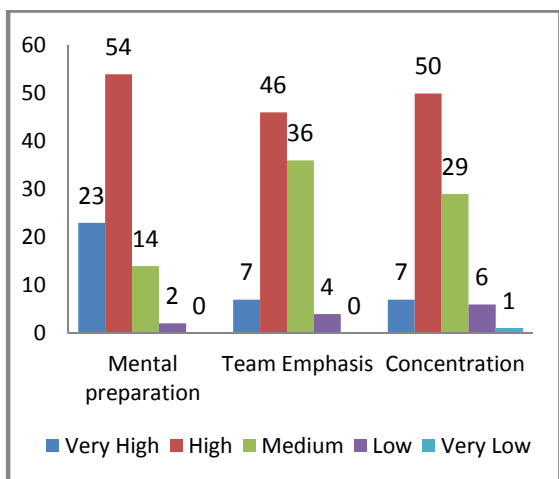


Figure 2: Frequency of psychological aspects athletes.

Figure 2 Showed the Mental preparation aspect of obtained mean score of 23.2 in high category. The majority of athletes on Mental Preparation aspect in category high of numbered 54 athletes with percentage of 58.06%; Team Emphasis aspect of obtained mean score of 13.7 in high category. The majority of athletes on Team Emphasis aspect in category high of numbered 46 athletes with percentage of 49.06%; Concentration Aspect of obtained mean score of 21.0 in high category. The majority of athletes on Concentration aspect in category high of numbered 50 athletes with percentage of 53.76%.

In this discussion quite interesting related with the anxiety control aspect of athletes that is in the category medium. Instrument search The Psychological Skill Inventory for Sport specifically discovers facts on the aspect of anxiety control in point question 16 and 18 with obtained mean score the lowest. Athletes often feel the panic just before going to perform and the athlete is nervous because it will start performing. The type of anxiety felt by the SEA Games athlete is Competitive anxiety, is the anxiety felt athletes in the situation of the game or tournament to be faced. Cox (2002) describes competitive anxiety is divided into two, that is Competitive trait anxiety (Competitive A-trait) is part of the personality that affect the level of competitive state anxiety. While competitive state anxiety (competitive A-state) is anxiety arising because of the specific situation, which is a response to the situation of a threatening competition. Competitive state anxiety felt by athletes increased from one week to an hour before the game began (Mabwezara et al., 2014).

Indonesian martial sports athletes feel competitive state anxiety (competitive A-state) that is anxiety

arising from a specific situation, which is a response to the competitive situation that threatening in the game. Sports Anxiety can have a negative impact on the athletes especially on performance in the game. Therefore needed strategies in the form of mental exercise techniques in managing sports anxiety. It also relates to aspects mental preparation of athletes. These statements are reinforced by the results on aspects mental preparation, although in the high category but seeing from the mean score obtained is almost in the category medium, so there is a relation between the control of anxiety and mental preparation.

And The results analysis variance of the difference Psychological Characteristics athletes among martial sports group (Taekwondo, Karate, Wushu, Pencak silat, Boxing, and Judo) could be seen in the following table:

Table 3: Results of analysis variance with one way anova.

	Sum of Squares	Mean Square	F	Sig.
Between Groups	1300,466	260,093	2,347	.048
Within Groups	9640,179	110,807		
Total	10940,645			

The Results obtained F calculate value of 2.347 and Sig. (2-tailed) value of 0.048 ($p < 0.05$), There was a significant difference of psychological characteristics athletes among martial sports group SEA Games 2017. These findings showed differences of psychological characteristics athletes among martial sports group. The psychological aspects underlain the emergence of behavior of sports activities practiced (Gunarsa, 2008). Psychologically, athletes behavior arised from each sport would form different psychological characteristics. Each martial sports had its own qualities, which could cause to different psychological characteristics whether viewed from aspects of psychological, physical, athlete, regulation and training.

This research proved that there was a conformity between theory and results. Psychological characteristics consisting of aspects i.e. motivation, confidence, anxiety control, mental preparation, team importance, and concentration, indeed formed was not the same among martial sports group (Taekwondo, Karate, Wushu, Pencak Silat, Boxing, and Judo).

The results also reinforce previous research which stated there are differences in psychological aspects between various martial sports such as (Kumar et al.,

2017; Sánchez-López., et al, 2013; Litwiniuk, et al., 2009; Baljinder and Davinder, 2015; Kuan and Roy, 2007; Kurtovic and Savova, 2016).

So it takes a different psychological intervention of each martial sports appropriate to the characteristics of the sports that pursued athletes.

The results of further analysis of the conducted identification of martial sports-anything made differences significantly by using Post-Hoc test as follows:

Table 4: Results of Post-Hoc Test among martial sports group.

	Sport Branch	Mean Difference	Std. Error	Sig.
Pencak Silat	Boxing	11,22727*	3,88716	,005
	Karate	4,23333	3,52474	,233
	Wushu	2,77273	3,88716	,478
	Taekwondo	4,56250	3,45862	,191
	Judo	-1,05556	3,34553	,753
Judo	Pencak Silat	1,05556	3,34553	,753
	Boxing	12,28283*	4,02856	,003
	Karate	5,28889	3,68009	,154
	Wushu	3,82828	4,02856	,345
	Taekwondo	5,61806	3,61681	,124

The results showed the sports of Pencak Silat with Boxing with Sig. value of 0.005 ($p < 0.05$), and on Boxing with Judo with Sig value of 0.003 ($p < 0.05$). Thus, the identified sport of Pencak Silat with Boxing and Judo with Boxing had the distinction of the psychological characteristics significantly. It was assumed that the differences occurred because of the factors of competed experience, exercise process, skill level, age factor, and task of motion that must be performed between the sports one another differently and athletes between sports martial sports group did too (Tazegul, et al., 2015; Kumar, 2015; Shrivastava, et al., 2015; Simpson and Wrisberg, 2013; Ziv et al., 2013).

Game characteristics, the nature of sports contained in the sport between Pencak silat with boxing and Judo with Boxing were different.

4 CONCLUSIONS

The majority of psychological characteristics of Indonesian martial sports athletes in SEA Games 2017 were in the high category. Details in each of the psychological aspects athlete as follows; Aspects motivation was in very high category, Aspect confidence was in high category, Aspects control anxiety was in medium category, Aspects mental

preparation in high category, Aspects Team Emphasis in high category, and Aspect concentration in high category.

There were psychological characteristics differences of Indonesian athletes among martial sports group (Taekwondo, Karate, Wushu, Pencak Silat, Boxing, and Judo) SEA Games 2017. The martial sports that significantly different were between the sport of Pencak Silat with Boxing and Judo with Boxing.

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