

The Impact Of Post-Competitive Sleeping Hours On The Sleep Quality Of Female Pencak Silat Athletes

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Abstract

This research is motivated by the large number of pencak silat athletes who pay less attention to the quality of their sleep after competing. As a result of these issues, the aim of this study is to find out how the quality of sleep and sleep habits of athletes in the post-competition stage have an impact on the performance and psychology of pencak silat athletes in the future and how important it is for athletes to maintain good sleep quality in order to maintain their post-martial arts achievements competition. This study used a qualitative correlation technique using a PSQI (the Pittsburgh Sleep Quality Index) questionnaire distributed via a Google Form. The people who participated in this study were female pencak silat athletes from several areas in West Java from different clubs or universities, for a total of 46 persons who were consequently rejected by 6 people, which resulted in 40 female pencak silat athletes. The technique used for sampling is Non-random sampling is also called probability sampling. Based on the results of the study, it was stated that there was a positive relationship between hours of sleep after competition and the sleep quality of female pencak silat athletes, The results reveal a significance level of <0.05 based on the linear test and single correlation using the SPSS 25 application. The conclusions from this study conclude that the good or bad hours of sleep of athletes after competition can impact their quality of sleep in the next competition.

Keywords: *Pencak Silat, Sleep Quality, Women, The Post – Competition*

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INTRODUCTION

Pencak Silat has a variety of varieties and varieties not only found in Indonesia in other countries such as: Malaysia and Brunei Darussalam also found in pencak silat. Pencak silat needs to have legality such as identity or something like that, how the attempt to build such legality becomes a concrete thing and can show the identity of the briber as an Indonesian cultural heritage (Muhyi & Purbojati, 2014). Pencak silat as a cultural heritage of the continuously developing Indonesian society must be sought for its sustainability and legality by the Indonesians along with the history of the development of the people of Indonesia (Kumaidah, 2012). Form efforts to protect and preserve the silat culture as Indonesia's native culture in the world by implementing the process of submission of the Intangible Cultural Heritage of Indonesia into the UNESCO List of Intangibles Cultural Heritages through the intangible cultural heritage secretariat (Sutantri, 2018). Pencak silat acts as a carrier of a culture accepted by society because it influences behaviour such as the psychology of society (Saputra & Rahman, 2023).

In October 2010, Papua has hosted one of the biggest events in Indonesia, PON Papua 2021, the most prestigious event among athletes to showcase their achievements and talents.

The psychological aspects of athletes have a strong influence on the performance of pencak silat tops both in pre competition, during competition and post-competition. Riau is one of the national athletes who has achieved international level some time behind, but at the time of PON Papua 2021 the athlete has not been lucky to earn PON Papua 2021 (Solihin et al., 2022). A review of the techniques and psychological factors that influence athletes as supporting physical performance in exercise for an athlete (Effendi, 2016). Weinberg et al. (2011) Coaches often forget the importance of the psychological state of the athlete and focus only on the physical condition of the sportsman.

According to (Octavianingrum & Ina Savira, 2022), technique and psychology have roles as drivers and influences performance on athletes. Sleep patterns especially the duration and quality of sleep influence innig the psychological health of athletes. (Dhamayanti et al., 2019). In Ethiopia 4 Epidemiological studies show that 49% of teenagers experience poor sleep quality. One of the sleep disorders is that lack of sleep can lead to increased emotional difficulties and subjectively anxiety, as well as increased sympathetic reactions to unpleasant stimuli. Montero et al. (2022) obtained conclusive results that the internal psychological health of the athlete represented by the quality of sleep will affect the level of self-control. In a study (Roberts et al., 2019), previously, which was titled *The Effect of Exercise and Pre-Competition on Sleep Quality*. It has a limitation, i.e., it only investigates the quality of sleep of male athletes on elite athletes and only examines how quality of athlete's sleep is in the pre-competition phase and during competition. The study concluded that future research should contain whether sleep quality affects recovery times, which may imply post-competition athlete management. Based on the background exposure above, the researchers were interested in studying how the sleeping hours of the post-competition influenced the quality of sleep of female martial athletes.

METHOD

Correlation analysis is a study that discusses and explains the relationship between two or more variables. The correlation analytics method used in this study is a type of predictive study whose purpose is not only to know the relationship of variables, but also the more complex purpose of knowing the influence of the variables used by the researcher. The process of taking data on the quality of sleep of female pencak silat top athletes in the post-competition phase was obtained using a questionnaire that lasted for less than 3 days, precisely from 12 to 14 May 2023 which in the process of collecting the data was carried out by sharing the lift online using the media of the Google Form application. The population in this study was a

female pencak silat top athlete from several different clubs or colleges – different from the number of 46 people who were then abolished 6 people so that the whole subject was 40 women pencak silat tops athletes who were simultaneously the sample in the study. The techniques used for sampling are non-probability or non-random samplings.

The research instrument used in this study is the PSQI questionnaire (The Pittsburgh Sleep Quality Index) for evaluating sleep quality (Shahid et al., 2012). The PSQI questionnaire has a variety of language versions from several countries and can be used as an international standard instrument that has a good validity and reliability with Cronbach’s alpha rating of 0.63 (Made et al., 2019).

RESULTS AND DISCUSSION

The Pittsburgh Sleep Quality Index (PSQI), which consists of seven components, namely subjective sleep quality, sleep latency, sleep duration, daily sleep efficiency, sleep disorders, sleeping pills use, and daytime activity dysfunction. Each component has a range of 0–3 with 0 indicating no sleeping difficulties and 3 indicating severe sleeping difficulty, with the following assessment criteria:

Table 1. PSQI questionnaire answer score key

No	Components	No. Item	Assessment	
			Answer	Score
1	Subjective Sleep Quality	9	Very Good	0
			Good	1
			Bad	2
			Very Bad	3
			≤15 minutes	0
			16-30 minutes	1
			31-60 minutes	2
			>60 minutes	3
			Never	0
			1x a Week	1
2	Sleep Latency	5a	2x a Week	2
			>3x a Week	3
			0	0
			1-2	1
			3-4	2
			5-6	3
3	Sleep Latency Score	2+5a	>7 hours	0
			6-7 hours	1
			5-6 hours	2
			< 5 hours	3
			>85 %	0
4	Sleep Efficiency Formula:	1,3,4	75 – 84%	1
			65-74%	2

No	Components	No. Item	Assessment	
			Answer	Score
	Sleep Duration: long in bed X 100%		<65%	3
	*Sleep Duration (no.4) *Sleep Time (Response Calculations no.1 and 3)			
5	Sleep Disorder	5b,5c,	0	0
		5d,5e,	1-9	1
		5f,5g,	10-18	2
		5h,5i,	19-27	3
		5i,5j		
6	Sleeping Pills	6	Never	0
			1x a week	1
			2x a week	2
		7	>3x a week	3
			Never	0
			1x a week	1
7	Daytime activity dysfunction.	8	2x a week	2
			>3x a week	3
			Not enthusiastic	0
		7+8	Small	1
			Medium	2
			Big	3
			0	0
	1-2	1-2		
	3-4	3-4		
	5-6	5-6		

The scores of the seven components are summed up to 1 (one) global score with a range of 0 – 21. The total scores are adjusted according to the rating criteria grouped as follows:

Tabel 2. PSQI Global Score

Very Good	0
Good	1-7
Bad	8-14
Very Bad	15-21

After going through the analysis using the application Excel and SPSS Series 25 got the results, as follows:

Tabel 3. Statistics of the 7 PSQI Assessment Criteria

		Sleep Quality	Sleep Duration	Sleep Latency	Sleep Efficiency	Sleep Disorders	Sleeping Pills	Daytime Activity Dyfunction	Global Score
N	Valid	46	46	46	46	46	46	46	46
	Missing	0	0	0	0	0	0	0	0

Tabel 4. Subjective sleep quality

		Sleep Quality			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	5	10.9	10.9	10.9
	1	12	26.1	26.1	37.0
	2	24	52.2	52.2	89.1
	3	5	10.9	10.9	100.0
	Total	46	100.0	100.0	

Tabel 5. Sleep duration

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	16	34.8	34.8	34.8
	1	17	37.0	37.0	71.7
	2	8	17.4	17.4	89.1
	3	5	10.9	10.9	100.0
	Total	46	100.0	100.0	

Tabel 6. Sleep latency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	5	10.9	10.9	10.9
	1	1	2.2	2.2	13.0
	2	6	13.0	13.0	26.1
	3	34	73.9	73.9	100.0
	Total	46	100.0	100.0	

Tabel 7. Daily sleep efficiency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	6	13.0	13.0	13.0
	1	15	32.6	32.6	45.7
	2	14	30.4	30.4	76.1
	3	11	23.9	23.9	100.0
	Total	46	100.0	100.0	

Tabel 8. Sleeping pills use

		Sleeping Pills			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	42	91.3	91.3	91.3
	1	3	6.5	6.5	97.8
	3	1	2.2	2.2	100.0
	Total	46	100.0	100.0	

Tabel 9. Sleep disorders

		Sleep Disorders			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	14	30.4	30.4	30.4
	1	26	56.5	56.5	87.0
	2	6	13.0	13.0	100.0
	Total	46	100.0	100.0	

Tabel 10. Daytime activity dysfunction.

Daytime Activity Dysfunction					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.2	2.2	2.2
	1	10	21.7	21.7	23.9
	2	28	60.9	60.9	84.8
	3	7	15.2	15.2	100.0
	Total	46	100.0	100.0	

Tabel 11. PSQI Global Score Results

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	10	21.7	21.7	21.7
	Bad	36	78.3	78.3	100.0
	Total	46	100.0	100.0	

After passing the analysis with the PSQI questionnaire stated above this study had a final result of 78.3% (36 respondents out of 46 respondents) had a rather bad quality of sleep. Because of changing sleeping hours – after a competition or after a game.

CONCLUSION

From that, the researchers can conclude that the change in the post-competition sleeping hours is quite influential on the quality of sleep of a martial athlete, especially women. Therefore, the role of the trainer is important in addition to regulating the training program of athletes, coaches also need to regulate the sleep patterns of the sportsmen, especially after the competition. Athlete's sleep patterns are not only about the quantity, but also about the quality of his sleep.

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