



## Correlation of Knowledge Level of Drugs (Doping) with Achievement of Central Java Paragliding Athletes

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### Abstract

In facing the PON championship, athletes are required to have good stamina. However, with the pandemic that resulted in restrictions on activities, athletes could not prepare properly. Athletes who are found to have used these illegal drugs will be disqualified from the PON championship. The purpose of this study was to determine the relationship between the level of knowledge of illegal drugs (doping) with the achievement of paragliding athletes in Central Java. The type of research used in this research is cross-sectional using total sampling techniques. The subjects obtained were 12 athletes who took part in the XX Papua PON paragliding championship. The instruments used include interviews using a questionnaire to measure the level of knowledge of illegal drugs and secondary data in reports on the results of the XX Papua PON championship. The data obtained from the level of knowledge of illegal drugs was correlated with data obtained from the PON XX Papua championship (achievement) report, then the data were analyzed by correlation test using Spearman's and regression test using ANOVA. The results showed that there was a significant relationship between the level of knowledge of illegal drugs (doping), age, and license ( $p=0.001$ ;  $0.01$ ; and  $0.02$ ) with the achievement of paragliding athletes in Central Java ( $R 87.3\%$ ). This study concludes that the level of knowledge of illegal drugs (doping), age, and license can affect the performance of paragliding athletes in Central Java.

### How to Cite

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## INTRODUCTION

Paragliding is a sport done by floating using a parachute which is done by jumping from a mountain or hillside by utilizing the movement of the wind as a source of parachute lift. The mechanism of flying by utilizing the wind consists of two kinds of wind conditions: the wind moving up that hit the slopes (dynamic lift) and the wind moving up caused by geothermal heat, which is called thermal (Kaniamos, 2012). By utilizing these two wind conditions, pilots can fly high and reach the desired distance. All that is done without using the help of machine tools (only using the wind). In addition to recreation, paragliding is also carried out to get achievements. The parent organization in Indonesia is FASI (Federasi Aero Sport Indonesia).

Several numbers are competed in the paragliding sport, including landing accuracy, open-air cross-country, and limited-distance cross-country. Some additional race numbers competed in the State of Indonesia are tandem landing accuracy, namely flying with passengers and having to land at a predetermined point (Whittall, 1995). Meanwhile, the numbers contested in the XX Papua PON championship include landing accuracy, race to goal, and tandem race to the goal (KONI, 2021). In recent years, the number of novice pilots has increased significantly. It can be seen from the number of novice participants who took part in paragliding championships held throughout Indonesia.

Several factors can determine the championship results in paragliding, including wind factor, exercise intensity, concentration, parachute suitability with body weight, physical fitness, and intake needs. During the flight, athletes use the direction and speed of the wind to adjust the high and low flying positions and the speed of the parachute. Not only the direction and speed of the wind, the strength or magnitude of the wind will also affect the athlete's ability to raise or lower his flying position (Vargas & Wang, 2009).

An athlete requires an effort that is not easy to victory in every match. Training programmed, consistent training, health care, and good nutrition are needed to get the targeted achievement considering that the competition we face is getting more strenuous and more challenging. In conditions of a pandemic like this, athletes have more and more challenges, especially concerns during matches, namely: having doubts about the athlete's readiness and potential due to non-optimal training, fear when facing opponents who have a superior track record, pressure to win from parents constantly, coaches and sponsors, as

well as concerns that come from within oneself and the environment. Anxiety felt by an athlete can impact a crisis of confidence and can disrupt the athlete's concentration during the match. Yulianto and Nashori (2006) mention that self-confidence is related to athlete achievement. These challenges can encourage athletes to have a desire to overcome them instantly, including the use of drugs without a doctor's prescription to support athlete performance, the issue of sponsorship in a match event, and modifying the technology used in matches (Budiawan, 2013).

The use of illegal drugs (doping) in sports activities aimed at achievement is one of the issues discussed at this time. The use of illegal drugs (doping) is prohibited because it can harm the future and career of athletes. It is due to the negative impact of long-term use of these drugs, such as being vulnerable to disease, causing dependence, damaging nerves or organs in the body, and losing athletes' careers in the world of sports (Amin, 2018; Dewi, 2015; Sismadiyanto, 1990). Ambition in winning matches caused by athletes' concerns is a factor in the high use of illegal drugs (doping) among athletes in several sports (Budiawan, 2013). Based on the Indonesian Republic Constitution Number 3 of 2005 concerning the national sports system, which states that in preventing the use of doping, the government has explained the prohibition of the use of doping in sports through the national sports system.

The National Sports Week (PON) is a multi-event championship organized by the government through the Ministry of Youth and Sports of the Republic of Indonesia every four years. In the last two editions of PON in 2012 in Riau and 2016 in West Java, some athletes used doping. Namely, eight athletes in PON 2012 (Azom, 2010) and 12 in PON 2016 (Prakoso & Firman, 2009). Even at the 1996 PON and the 1997 Jakarta Sea Games, there were reports of the use of doping by athletes (Sujatno, 2001). Central Java Paragliding in several years PON performances have always won gold medals and made the Central Java Paragliding team considered as competitors that other regions are wary of. Based on these problems, the purpose of this study was to examine the relationship between the level of knowledge of illegal drugs (doping) and the achievements of paragliding athletes in Central Java.

## METHOD

This type of research is cross-sectional, using a total sampling technique. The subject is 12 athletes who participate in the XX Papua PON

paragliding championship. The inclusion criteria in this study were Central Java paragliding athletes who passed the Papua PON selection. The instruments used include a questionnaire on the level of knowledge of illegal drugs with ten questions about doping tested for validity and a report on the XX Papua PON championship results. The data obtained from the level of knowledge of illegal drugs was correlated with data obtained from the report of the championship (achievement) of PON XX Papua, then the data were analyzed by correlation test with Spearman's and regression test using SPSS 23 for windows application.

This research was carried out at the XX National Sports Week championship, namely Papua Province, and was carried out from September to October 2021.

The data was obtained by interview using a questionnaire instrument to determine the level of knowledge of illegal drugs by paragliding athletes in Central Java and secondary data in the form of the results of the paragliding championship at PON XX Papua. The step in collecting data is by making a questionnaire in the form of questions about knowledge of illegal drugs using a google form which is then distributed to athletes. The questionnaire has been tested for validity, and the results obtained are all valid questions with a T arithmetic value more significant than the T table. Then the researchers observed and recorded the championship results during the match.

All data were analyzed univariately or descriptively, describing the respondent's age, level of knowledge of illegal drugs, licenses, age, and results of the XX Papua PON championship for paragliding athletes. After the univariate analysis was carried out, it was followed by bivariate analysis (correlation test), which was to examine the relationship of the independent variables (level of drug knowledge, age, and license) with the dependent variable (paragliding athlete achievement results). The correlation test used is the Rank Spearman's Correlation test with a 95% confidence level (significance level ( $\alpha$ ) 0.05). If there is more than one independent variable that is stated to be related to the dependent variable, then the regression test is continued to determine the magnitude of the influence of the independent variable independently (Uyanto, 2009).

## RESULTS AND DISCUSSION

The subjects of this study consisted of 12 people, ten male and two female. The average age is 29 years, and the youngest age is 18 years, and the oldest age is 45 years. The characteristics of the rest of the research subjects can be seen in **Table 1**.

**Table 1.** Characteristics of Study Subjects

Characteristics	Total (N=12)	
	n	%
Ages ( $29.41 \pm 8.39$ years)		
- < 29 years	8	66.7
- > 29 years	4	33.3
Gender		
- Male	10	83.3
- Female	2	16.7
Licence		
- PL 1	1	8.3
- PL 2	1	8.3
- PL 3	4	33.4
- Master Tandem	6	50

The Relationship between Knowledge Level of Illegal Drugs (Doping) with Paragliding Athletes' Achievement

Based on **Table 2** above, it can be seen that gender is not related to athlete achievement with  $p = 0.66$ . Because the number of subjects with female sex is only two people, it is not comparable to 10 male subjects. This disparity is due to the quota of female athletes in each contingent, a maximum of 2 people, following the existing regulations for the handbook of paragliding at the XX Papua PON championship (KONI, 2021). These results are supported by research conducted by Sahri et al. (2020) which states that gender is not related to the accuracy of landing paragliding athletes.

In contrast to gender, the age variable is associated with athlete achievement with a  $p$ -value = 0.01. In paragliding championships, there are no rules that limit the age of each number being competed. With the increasing age of an athlete and the level of activeness in training, it can increase the maturity and ability of an athlete when flying. It is supported by the team selection results that can represent the province of Central Java at the XX Papua PON. All selected athletes have the best selection results according to the rankings set by the Central Java paragliding coach. The results of this study are inversely proportional to the research conducted by Sahri et al. (2020) which stated that age was not related to the accuracy of landing paragliding athletes. The subject was not selected beforehand to participate in the paragliding championship.

Another variable is the level of license. Based on table 2, it can be seen that the license is related to the achievement of paragliding athletes with a value of  $p = 0.01$ . Athletes with better flying abilities marked by their flying license can produce better performance. More flying experi-

ence and mastery of flying knowledge and skills can increase the chances of getting better achievements. The license level is helpful on the permission to use the specifications of the parachute that may be used. The most basic license is the Pilot License 1 (PL-1), which is given to novice athletes who have completed paragliding education with a total of 40 flights and have passed the written exam. At the same time, the highest license in the paragliding championship is the master tandem. The license is applicable on tandem match numbers. If an athlete does not have a tandem master license, the athlete cannot take part in the championship in tandem numbers. The results of this study are inversely proportional to the research conducted by Sahri et al. in 2020, which stated that licenses were not related to the accuracy of landing for paragliding athletes. In previous studies, there was only one number studied, namely individual landing accuracy. In contrast, there were several numbers (individual and team landing accuracy, individual and team race to goal, individual and team tandem race to goal, and individual tandem and team).

Based on table 2, it can also be seen that the level of knowledge of illegal drugs (doping) is related to the achievement of paragliding athletes with a p-value of 0.001. Athletes who have a level of knowledge of illegal drugs that can abort athletes in championships and good drink consumption can support athletes in achieving optimal performance. In facing the XX Papua PON championship, athletes must have good stamina. However, with the pandemic that resulted in restrictions on activities, athletes could not prepare properly. It can trigger some unfair play actions by consuming illegal drugs as an alternative to fulfill the athlete's stamina increase. A survey states that 50% of athletes are willing to take drugs with a guarantee of achievement for the next five years without being caught even though there are side effects of death (Morente-Sánchez & Zabala, 2013). At the XX Papua PON show, there was a doping issue, namely two bodybuilding athletes who withdrew from a test conducted by the Indonesian Anti-Doping Agency (LADI). The results of this study are in line with Madlizari's (2014) research with the results that there is a relationship between the level of knowledge about the types of doping and the dangers of doping with doping behavior in UPI Pencak silat UKM athletes in Bandung.

## CONCLUSION

This study concludes that there is a relationship between age, license, and level of knowledge with the achievement of paragliding

athletes at the XX Papua PON championship. Suggestions that can be given are to add other variables that can affect athlete achievement and increase the number of research subjects.

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**Table 2.** Factors Associated with Achievement of Paragliding Athletes

Variable	Paragliding Athlete Achievement (N=12)								P-Value
	No Medals		Other Gold Medals		Gold Medals		Gold Medals and Another (Silver or Bronze)		
	n	%	n	%	n	%	n	%	
<b>Age</b>									
< 29 years	4	33.3	2	16.7	0	0	2	16.7	0.01*
> 29 years	0	0	0	0	0	0	4	33.3	
<b>Gender</b>									
Male	4	33.3	0	0	0	0	6	50	0.66
Female	0	0	2	16.7	0	0	0	0	
<b>Licence</b>									
Pilot Licence 1	1	8.3	0	0	0	0	0	0	0.02*
Pilot Licence 2	1	8.3	0	0	0	0	0	0	
Pilot Licence 3	1	8.3	2	16.7	0	0	1	8.3	
Master Tandem	1	8.3	0	0	0	0	5	41.7	
<b>Knowledge Level</b>									
Poor	0	0	0	0	0	0	0	0	0.001*
Not Enough	0	0	0	0	0	0	0	0	
Average	4	33.3	0	0	0	0	0	0	
Good	0	0	2	16.7	0	0	2	16.7	
Excellent	0	0	0	0	0	0	4	33.3	

Correlation Test using Spearman's test with a significance level of 0.05  
Significance values are marked with (\*)