

The Tendency of Using Prohibited Substances in Olympic Games: With special reference to Rio Olympic Games-2016

Dr. P.D.V. Charika Wickramaratne

Department of Sport Science and Physical Education, University of Kelaniya, Sri Lanka
pdvcharika@gmail.com

Abstract – Objective of this article is to find out the tendency of using prohibited substances by the participants who took part in the Olympic games which was held in Rio 2016. The study has done by using secondary data and data were gathered by the relevant books and the International Olympic Committee (IOC) websites. Gathered data were analyzed by the descriptive statistical analysis method. Some competitors have been suspended before the games and some were suspended during the games. Most of the weightlifters have been taken the prohibited substances and most of them are from Poland, Russia and Kazakhstan. World Anti-Doping Agency (WADA) has changed the list of prohibited substances time to time.

Keywords: Prohibited substances; Olympic participants; Olympic Games

1. INTRODUCTION

The modern Olympic Games or Olympics which features Summer and Winter Sports Competitions is a leading international sports event. Modern Olympic games started in 1896 and thousands of athletes from all over the world take part in this sports event. Over 200 nations take part in this most prominent sports event which is held once every four years.

1.1 Performance Enhancing Drugs

In the early 20th century, many Olympic athletes started taking drugs with the intention of improving their athletic capabilities. For instance, in the year 1904 Strychnine was given to the gold medalist Thomas Hicks by his coach (at that time the consumption of drugs by athletes was not prohibited as there were no findings on the bad effects of these drugs on the health of the athletes) (WADA 2008). However, in the Rome Games in 1960 a Danish cyclist, Knud Enemark Jensen died after falling off his bike. This was marked as the Olympic death during a performance. Later on, it was found out that the athlete was affected by amphetamines (WADA 2005). The sports federation banned the use of performance-enhancing drugs by the mid-1960s which was followed by the International Olympic Committee (IOC) in 1967 (Begley S. 2008)[4]. The KGB colonel has stated The International Olympic Committee has appointed officers of the agency as anti-doping authorities in order to proceed with doping tests (reported by the British Journalist Andrew Jennings). It has been witnessed that these tests have tremendously aided in rescuing Soviet athletes (Hunt, Thomas M.2011). An Australian study which was done in 1989 on the 1980 Summer Olympics has stated that it is extremely hard to

find medal winners especially gold winners in the Moscow Games who are not drugged. The study elaborated that the Moscow Games could be well introduced with the name Chemists' Games (Hunt, Thomas M.2011)[8].

The documents obtained in 201 have pointed out the plans of the Soviet Union in implementing the doping system in the track and field throughout the state. This was done during the preparation of the 1984 Summer Olympics in Los Angeles. As the document was detailed prior to the country's approach to boycotting the games, it contains information on both the prevailing steroids operations of the program and the proposal for more enhancements. Dr. Sergel Portugalov of the Institute of physical culture prepared the communication which was directed towards the head of track and field of the Soviet Union.

Portugalov is also considered as one of the most prominent figures who stepped forward in implementing the Russian doping program, before the 2016 Summer Olympics (Ruiz, Rebecca 2016)[11].

The Swedish athlete Hans-Gunnar Liljenwall who participated in the 1968 Summer Olympics was the first Olympic athlete to be tested positive for the use of performance-enhancing drugs. The athlete lost his bronze medal as punishment for the use of drugs. This is considered as one of the most publicized doping-related disqualifications after the 1988 Summer Olympics where Ben Johnson the Canadian sprinter who won the meter dash was tested positive for Stanazolol (Montague, James 2012)[6].

The world Anti-Doping Agency (WADA) was formed by the IOC in 1999 with the intention of creating a systematic procedure to detect performance-enhancing

drugs. As a result of the developed testing methods, a visible increase in the positive drug tests could be recognized in the Summer Olympics held in 2002. A number of medalists from the post-Soviet states who took part in cross country skiing and weight lifting were disqualified for the offense of consuming drugs. The drug testing regime which is now recognized as the Olympic Standard was established by the IOC. This regime has reached a worldwide standard which the other associations attempt to reach as well. In the Beijing Games, with the guidance of the WADA, the IOC tested 3667 athletes. The banned substances were detected with the use of both blood and urine tests. Over 6000 Olympic and Paralympic athletes were tested. 107 athletes were recognized as drugged athletes prior to the games and were thus not given permission to compete (WADA 2012).

1.2 Prohibited Substances

The WADA has named the substances which are banned by the law or other authorities as 'prohibited substances. Synthetic drugs such as hGH, ACTH, hCG, and EPO have a similar effect to peptide hormones are known as analogs. The WADA has classified prohibited substances into six classes as follows,

- S₀ - Non-approved substances.
- S₁ - Anabolic agents.
- S₂ - Hormones.
- S₃ - Beta Lagonists.
- S₄ - Hormones and metabolic modulators.
- S₅ - Diuretics and masking agents.

- Methods of using Prohibited Substances
- M₁ - Manipulating of blood and blood component.
- M₂ - Chemical and Physical manipulation.
- M₃ - Gene Doping.

Side effects of blood doping

- Increasing blood viscosity.
- Clotting Susceptibility.
- Hypertension.
- Vasoconstriction.
- Kidney Dysfunction.
- Risk of cardiac arrest, brain strokes, and Pulmonary embolism.
- Since 2004 the WADA has banned the use of prohibited substances.
 - (Charika Wickramaratne 2020)

2. OBJECTIVES OF THE STUDY

1. To Identifying the tendency of Olympic athletes to take prohibited substances.







The specific objective is




2. To recognize the prohibited substances.

3. RESEARCH METHOD

This research is based on secondary data. The Olympic Games website, books, and articles were used to collect data. The collected data were analyzed by using the descriptive research analysis method.

4. FINDINGS

Name	Country	Sport	Banned substance	Medals	Details of test
Izzat Artykov	 Kyrgyzstan	Weightlifting 69 kg	Strychnine	 (69 kg)	Positive test for strychnine and forfeiture of medal announced by CAS. ^[247]
Chen Xinyi	 China	Swimming 100 metre butterfly	Hydrochlorothiazide		Tested positive for the diuretic hydrochlorothiazide; applied for B sample to be tested and hearing to be held. ^[248]
Anastassya Kudinova	 Kazakhstan	Athletics 400 metres	Drostanolone		Out-of-competition test in Almaty, Kazakhstan on 13 July 2016 ^[249]
Kléber Ramos	 Brazil	Cycling Road race	CERA		IOC pre-games test 31 July and out-of-competition test (blood and urine) 4 August. ^[250] Provisionally suspended by UCI on 12 August. ^[251]
Serghei Tarnovschi	 Moldova	Canoeing C-1 1000 metres C-2 1000 metres	GHRP-2	 (C-1 1000 metres)	Result from pre-game test. Provisionally suspended on 18 August. ^{[252][253]} On 11 July 2017, the Court of Arbitration for Sport upheld the International Canoe Federation's decision of 30 January

Name	Country	Sport	Banned substance	Medals	Details of test
					2017 imposing a period of ineligibility of four years and the disqualification of all results from 8 July 2016 onwards. ^[254]
Chagnaadorj Usukhbayar	 Mongolia	Weightlifting 56 kg	Exogenous testosterone		IOC out-of-competition test on 7. August. ^[255]
Misha Aloian	 Russia (RUS)	Boxing Men's flyweight	Tuaminoheptane	2 (Men's flyweight)	On 8 December 2016, the CAS disqualified weightlifter Gabriel Sîncrăian of Romania and boxer Misha Aloian of Russia for doping. ^[256]
Gabriel Sîncrăian	 Romania (ROM)	Weightlifting Men's 85 kg		3 (Men's 85 kg)	On 8 December 2016, the CAS disqualified weightlifter Gabriel Sîncrăian of Romania and boxer Misha Aloian of Russia for doping. ^[256]

Athletes who were selected for the Games, but provisionally suspended before competing.

Name	Country	Sport	Banned substance	Details of test
Sergey Fedorovtsev	 Russia	Rowing Men's quadruple sculls	Trimetazidine	Disqualified from competing at the 2016 Olympics after a positive out-of-competition drug test. ^[257]
Silvia Danekova	 Bulgaria	Athletics Steeplechase	EPO	Provisionally suspended after a failed A-sample test given a few days after arriving in Brazil. ^[258]
Theodora Giareni	 Greece	Swimming 50 metre freestyle		Sent home from the Olympics on the day of the opening ceremony after failing a pre-games test conducted in July. ^{[259][260]}
Antonis Martasidis	 Cyprus	Weightlifting 85 kg		Sent home from the Olympics after failing a pre-games test conducted on 25 July. ^[259]
Michael O'Reilly	 Ireland	Boxing Middleweight	not disclosed	O'Reilly admitted to taking a dietary supplement given to him by someone unrelated to his team or association. ^[261]
Narsingh Pancham Yadav	 India	Wrestling Freestyle 74 kg	Methandienone	Originally cleared to compete by the National Anti-doping Agency of India after failed tests on 25 June and 5 July. Appeal by WADA was upheld by CAS on 18 August, with a 4 years suspension handed down. ^[262]
Adrian Zieliński	 Poland	Weightlifting 94 kg	Nandrolone	^[263]
Tomasz Zieliński	 Poland	Weightlifting 94 kg	Nandrolone	Sent home from the Olympics after failing a test conducted at the Polish Championships in July. ^[263]

Source : IOC website

5. ANALYSIS

Table 1: Doping in Rio Olympics 2016 (Country Wise)

Country	Number of Athletes
Poland	2

India	1
Ireland	1
Cyprus	1
Greece	1
Bulgaria	1
Russia	2
Rumania	1
Mongolia	1
Moldova	1
Brazil	1
Kazakhstan	2
China	1

Figure 1

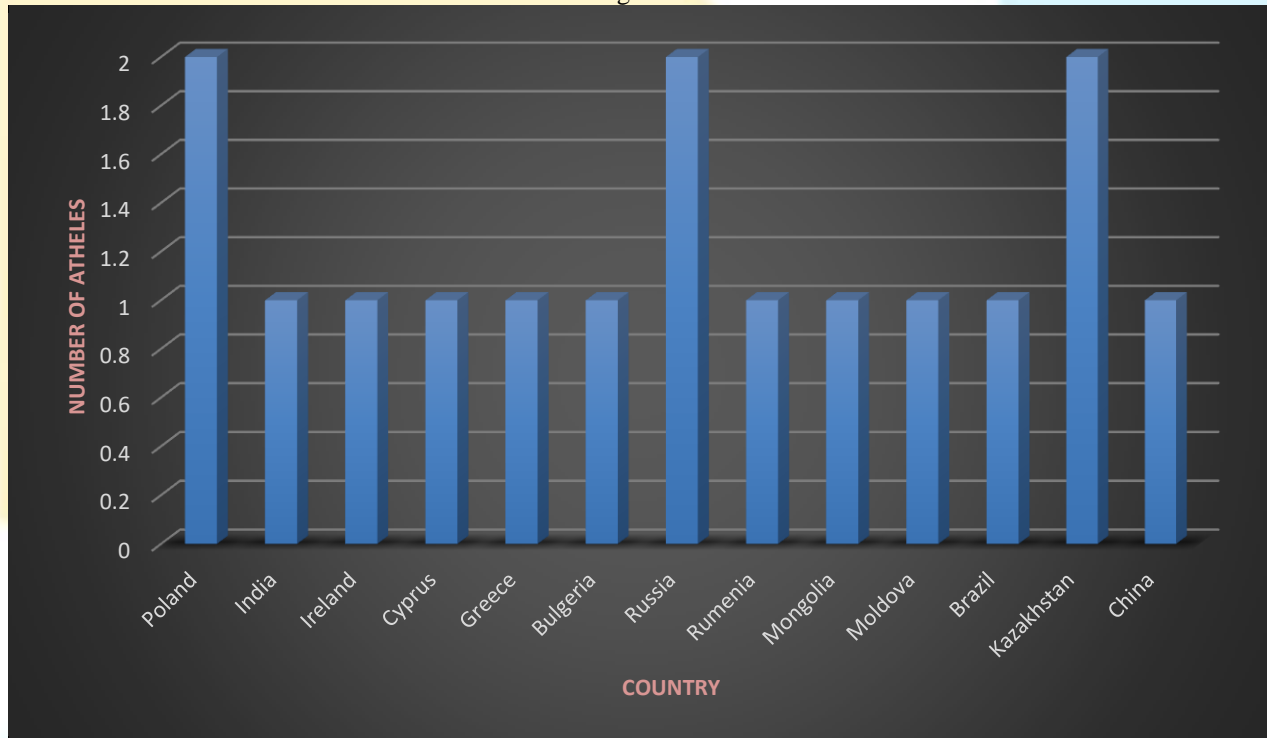
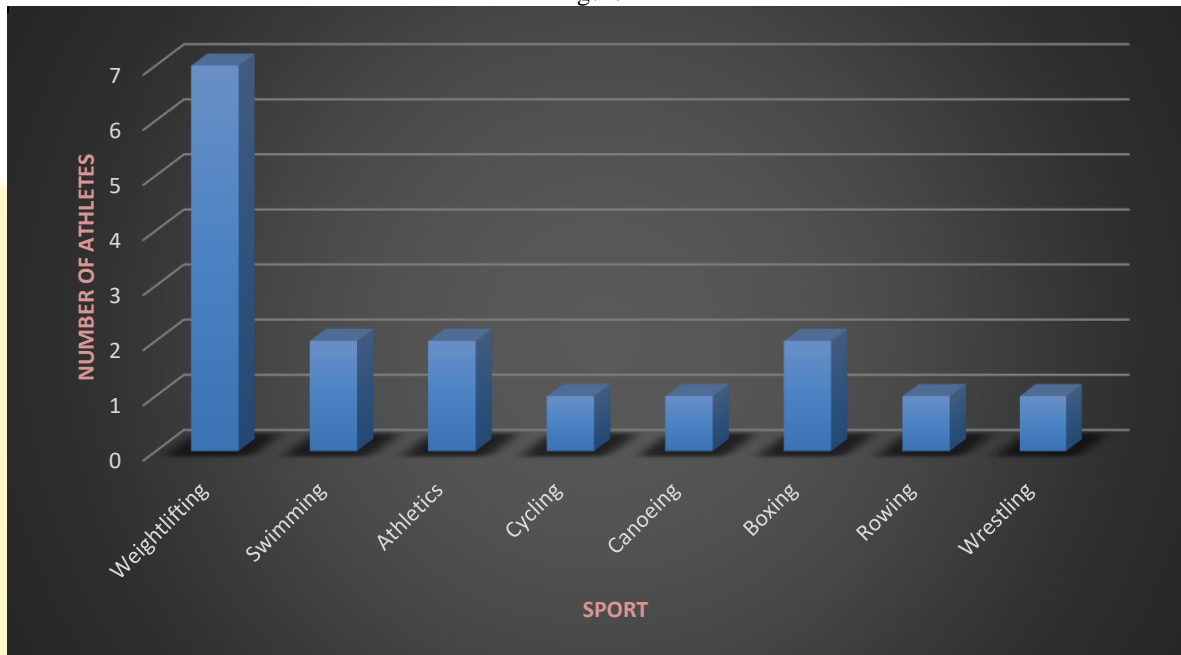


Table 2: Doping in Rio 2016 (Sport Wise)

Sport	Number of Athletes
Weightlifting	7
Swimming	2
Athletics	2
Cycling	1
Canoeing	1
Boxing	2
Rowing	1
Wrestling	1

Figure 2



6. CONCLUSION

The participants who were participated in Rio Olympic games 2016 were taken several types of performance enhancing drugs to perform well in their relevant events. The World Anti-Doping Agency have changed the list of prohibited substances frequently however, the athletes have tried to cheat and to become a champion in the games. WADA has identified that the, Weightlifters were taken prohibited substances than the other athletes. That was seven (7).

Athletes, swimmers and Boxers are in the second layer. Other sports such as, Cycling, Canoeing, Rowing, and Wrestling are also highlighted sports that became positive in doping test. The highest number of players who have taken prohibited substances were from Poland, Russia and Kazakhstan. It is high time to promote the Olympic Motto "Participation is better than the wining the Game." From that Policy makers , Administrators Managers, and coaches can built up a better sports environment all over the world.

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