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## Level of Drugs Usage and Sport Performance in Malay Silat

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**Key words:** Silat Melayu, drug usage, sport performance

### Abstract

Background. Drug, as a new ‘threat’ to the ideal of sports has entered into the sport scene lately.

Aim. The aim of this research is to evaluate the motives of drug usage among Silat athletes. Besides that the aim of this research is to correlate the relationship between the level of drug usage and sport performance among Malay Silat athletes.

Methods. The sample consisted of 103 Malay Silat athletes, who voluntarily participated in this study. The sample was drawn from athletes who competed in Majlis Sukan Universiti Malaysia (MASUM) or sport competitions between Universities. Drugs Usage Questionnaire was used which comprised of reasons for taking drugs such as: need for achievement, in order to avoid pain, gain strength, relax and avoid frustration. Besides that, Sports Performance Questionnaire was used to evaluate the participants performance in Silat. Results. The results showed that the reasons for taking drugs among Malay Silat participants were the highest in order to avoid pain, followed by achievement, strength, relax and reduce frustration and stress. The results showed the existence of a positive correlation between the level of drug usage and sport performance.

Conclusions. Sport psychologist should play an important role to teach Silat athletes’ skills and strategies relating to manage pain and enhance performance without drugs.

### Introduction

One of the main challenges for sport psychologists and coaches in this century would be producing strong performance among the non drug addict athletes. Drug, as a new ‘threat’ to the ideal of sports has entered into the sport scene lately. The International Olympic Committee (IOC) refers to the act of ingesting banned drugs as “doping” [Prokop 1990]. Furthermore, Prokop [1990] defined doping as “the administering or use of substances in any form alien to the body or of physiological substances in abnormal amounts and with abnormal methods by healthy persons with the exclusive aim of attaining an artificial and unfair increase of performance in competition”.

The easily availability of illegal drugs, contributes to the rise of drug addictions. Although the prevalence of drugs use among professional, elite amateur and college athletes is unknown, in his report Victor Conte, drugs supplier for athletes, told “The Times” that six out of 10

athletes at the games are taking banned substances [Wilson 2012]. Therefore, sport psychologists and coaches, face a very a strong challenge in this century to stop athletes from taking drugs in enhancing their performance.

Athletes may have several reasons for using drugs. An athlete may want to: build mass, increase muscular strength and endurance, reduce recovery time from injuries, strengthen muscles and/or bones, increase delivery of oxygen to exercising tissues, mask pain, stimulate the body, feel pressure to win, perform at a high level, to improve one’s body image, and personal desire to do well, relax and reduce weight [Freudenrich, Allen 2013; Nocelli *et al.* 1998; Petroczi, Aidman 2009; Ehrnborg, Rosen 2009]. However, the purpose of using drugs among martial art sport athletes is still unknown.

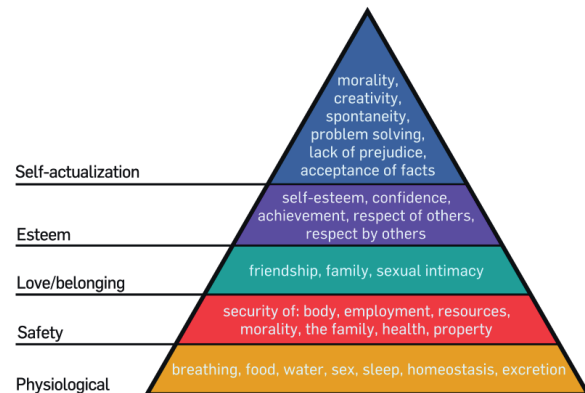
One of the famous martial art sports in Malaysia is Malay Silat. Malay Silat is also called ‘Silat Melayu’, ‘Silat’ or ‘gayong’ [Anuar 2007]. The dress code of Malay silat consists of Malay clothes or ‘baju Melayu’, headgear called as ‘tanjak’ and sarong called ‘kain sampung’.

Silat is a collective word for indigenous martial arts from a geo-cultural area of South-east Asia encompassing most of the Malay Archipelago (Malaysia, Indonesia, Singapore, Brunei) and the entirety of the Nusantara (South East Asia) [Anuar 2007]. There are hundreds of different styles but they tend to focus either on strikes, joint manipulation, throws, bladed weaponry, or some combination thereof [Anuar 1992]. Silat is one of the sports included in the South-east Asian Games [Shapie *et al.* 2008] and other region-wide competitions [Anuar 1993]. Sports Silat (Silat Olahraga) is a relatively modern concept. The international governing body for Silat (PERSILAT, The Federation of International Silat) introduced the first international silat olahraga competition that were held in Jakarta in 1981 [Anuar 1987].

Since Jon Jones, a mixed martial arts champion declared as positive in a drug test [Beacham 2015], many people suspect that most probably there are many athletes in martial arts using drugs for a maximum performance. However, there is a lack of research on martial arts athletes to determine this. The nature of martial arts sports increase muscular strength, endurance, sustain injuries and pain. Therefore there is a tendency of martial arts sport athletes to use drugs since most of the performance drugs are for bearing the pain, injuries and enhancing endurance.

One of the theories which can be used to describe the motivation of taking drugs is Maslow's hierarchy of needs proposed by Abraham Maslow's theory of human motivation. The initial and most commonly known Maslow's hierarchy of need theory has 5 stages of needs. The 5 stages are (in order): Physiological, Safety, Social, Esteem, and Self-Actualization. According to Maslow, people must first satisfy the basic level of need before the person can go up the pyramid to fulfil other needs. The fourth level of the Maslow hierarchy of need is self-esteem, which plays an important role of athletes to consume drugs. Esteem level includes achieving goals, becoming proficient at something, being able to take charge of their own life, having a good status, dominance, self-respect, and getting respect from others. Self-esteem includes a person's desire to be successful, have prestige, develop self-respect, to be recognized and approved by other people [Ampofo-Boateng 2009]. Athletes consume drugs to enhance their self esteem, which results in enhancing their high performance in sports. In other words, self-esteem among players is one of the factors that may lead to the performance of the athletes. Furthermore, according to Perlman [1996], people with high self-esteem are not afraid to take risks, they are more confident of self-abilities, generally happy and positive about themselves. According to Elavsky [2010] low self-esteem will lead to negative effects, such as a higher level of anxiety. Furthermore, the level of anxiety can deteriorate athletes' performance in sport [Jones, Hanton, Swain 1994]. A lot of research showed that self-esteem is related to anxiety

and low performance [Alesi, Rappo, Pepi 2014; Khale-dian 2013; Bhatta 2012; Harris 2009]. However there are only limited studies done on sport performance in relation to self esteem and anxiety.



**Figure 1.** Maslow's hierarchy of needs

The aim of this research is to evaluate the motives of drug usage among Silat athletes. Besides that the aim of this research is to correlate the relationship between the level of drug usage and sport performance among Silat athletes.

## Material and Method

The sample consisted of 103 athletes, who voluntarily participated in this study. The sample was drawn from athletes who competed in Malay Silat in Majlis Sukan Universiti Malaysia (MASUM) or sports competitions between Universities. All the athletes of Silat gathered in the sport field and were selected randomly to take part in the study.

The objective of the MASUM (Sport between Universities) competition is to integrate various universities into sport activities. The MASUM (Sport between Universities) competition is very tough since 20 universities in Malaysia participate every year. Their main aim of every student-athlete in MASUM competition is to win their university as champion. However not every athlete or every university can perform to the highest level. Those universities, which compete at MASUM are Universiti Malaya (UM), Universiti Putra Malaysia (UPM), Universiti Teknologi MARA (UiTM), Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM), Universiti Utara Malaysia (UUM), Universiti Teknologi Malaysia (UTM), Universiti Islam Antarabangsa Malaysia (UIAM), Universiti Pendidikan Sultan Idris (UPSI), Universiti Malaysia Sarawak (UNIMAS), Universiti Malaysia Sabah (UMS), Universiti Sains Islam Malaysia (USIM), Universiti Tun Hussein Onn Malaysia (UTHM), Universiti Malaysia Terengganu (UMT), Universiti Teknikal Malaysia Melaka (UTeM), Universiti Malaysia Perlis (UniMAP), Uinversiti Malaysia Pahang

(UMP), Universiti Sultan Zainal Abidin (UniSZA), Universiti Pertahanan Nasional Malaysia (UPNM) and Universiti Malaysia Kelantan (UMK).

Drugs Usage Questionnaire was used which showed the reasons for using drugs. They included: achievement of better results (5 items), avoiding pain (5 items), gaining strength (5 items), relaxing (5 items) and reducing frustration and stress (5 items). Athletes indicated their responses to a Likert-typed scale ranging from strongly agree (5) to strongly disagree (1). Besides that, Sports Performance Questionnaire (10 items) was used in this research to collect the data.

The questionnaires were developed by the researchers refer to the past studies and literature reviews. The questionnaires were developed systematically and used a few times on athletes. The results showed a very high reliability and validity. Systematic development of the questionnaire for data collection is important to reduce measurement errors-questionnaire content, questionnaire design and format, and respondents. The Drug Usage Questionnaire and Sport Performances Questionnaire were used in a study by Vincent Parnabas [2013] among 115 athletes.

respondents' profile. The profile of the Malay Silat respondents described their gender and age. There were 69 male and 34 female Silat athletes participating in this study.

Financial background of the athletes' family can be divided into three types of sports, low-income, middle-income and high-income. Family's income less than 2,000 RM is considered as low income. Monthly income more than 2,000 RM but less than 4,000 is included as middle-income. Furthermore, income more than 4,000 is categorised as high-income. Table 1 shows that most of the athletes who consume drugs come from high-income families (46.60%) and followed by middle-income (33.98%) and low-income families (19.42%).

Based on the level of experience, 49 athletes had the experience of more than five (5) years, 39 athletes had experience of 2 to 5 years, whereas 15 athletes had less than 2 year-experience in Silat.

The mean age for overall respondents was 24.47 years old. The age of male varied from 20 to 27 years, where the mean age was 23.15 years old. The age of females ranged from the minimum of 20 to the maximum of 25 years old. The mean age for female respondents was 23.91 years old.

**Results**

**Profile of the Malay Silat Respondents**

Frequency, percentage, mean and standard deviation are presented in Table 1, which shows the overall results of the

**Methods**

Drugs Usage Questionnaire was used which showed the reasons for using drugs. They included: achievement of

**Tab 1.** Profile of the Malay Silat Respondents

Variables	Frequency	Percentage	Mean	SD
<b>Gender</b>				
Male				
Female	69	66.99		
	34	33.01		
<b>Family Income</b>				
High-Income	48	46.60		
Middle-Income	35	33.98		
Low-Income	20	19.42		
<b>Level of Experience</b>				
Less than 2 years	3	6.98		
2 to 5 years	12	27.91		
More than 5 years	28	65.11		
<b>Level of Experience in Team Sport</b>				
More than 5 years				
2 to 5 years	49	47.57		
Less than 2 years	39	37.86		
	15	14.57		
<b>Age</b>				
Male				
Female			23.15	1.73
Overall			23.91	2.69
			24.47	2.71

better results (5 items), avoiding pain (5 items), gaining strength (5 items), relaxing (5 items) and reducing frustration and stress (5 items). Besides that, Sport Performance Scale was used to evaluate the level of sport performance among Silat athletes in this study.

### Cronbach Reliability Coefficients

Cronbach alpha were found ranging from .81 to .87. (Table 2).

**Tab 2.** Cronbach Reliability Coefficients

Factors	Cronbach's Alpha (n=103)
<b>Drug Usage</b>	
Avoiding Pain	0.8627
Achievement	0.8711
Gaining Strength	0.8125
Relax	0.8111
Reducing Frustration and Stress	0.8257
<b>Sport Performance</b>	
Intrinsic Motivation	0.8602
Extrinsic Motivation	0.8377
Self-Confidence	0.8128
Killer Instinct	0.8497

### Reason for Taking Drugs

The results showed that the reason for taking drugs among Malay Silat participants were the highest in order to avoid pain (mean= 3.51), followed by better achievement (mean= 3.27), gaining strength (mean= 3.15) and relax (mean= 2.11). The Malay Silat respondents indicated reducing frustration and stress as the lowest motive (Table 3).

**Tab 3.** Reasons for Taking Drugs among Malay Silat Athletes

Motive	Mean	SD
Avoiding Pain	3.51	1.97
Achievement	3.27	2.02
Gaining strength	3.15	1.73
Relax	2.51	2.22
Reducing frustration and stress	1.71	2.13

### Level of the Usage of Drugs and Sport Performance

The correlation coefficient of 0.597 was noted between the usage of drugs and sport performance in the evaluation of 103 athletes, which is statistically significant ( $P < .01$ ). In other words, the relationship existing between these variables is statistically significant. This means the higher the usage of drugs the higher their performance in Silat (Table 4).

**Tab 4.** The Relationship between The Usage of Drugs and Performance among Malay Silat Athletes

Subject	Silat Performance
The Usage of Drugs	0.597** (0.000)

\*\*  $p < .001$

## Discussion

### Reason for Taking Drugs

The results showed that the reason for taking drugs among Malay Silat participants were the highest in order to avoid pain, followed by better achievement (mean= 3.27), gaining strength and relax. The Malay Silat respondents indicated reducing frustration and stress as the lowest motive (Table 3). Silat can be included as one of the painful sports since every style of Silat incorporates multi-level fighting stances (*sikap pasang*) [Anuar 1992]. Basically it is sport which requires learning fighting techniques which are painful and a high risk sport since it can often cause injuries. In order to achieve a high level in Silat, one requires practising of fighting and defence techniques for months or years. There are a set of structured steps in Silat. The silat stance (*kuda-kuda* or *kekuda*) is the one of the most basic posture skill one should gain. Besides that, Silat also requires learning a few basic steps or 'langkah' in order to kick in a fight. There are seven langkah which are Serung (left leg in front of the right leg with 145 degrees from the right angle), Tunjang (the right leg in front of the left leg, body weight on the right leg), Terus (forward), Undur (backward), Ereng (vertical but on the sideways position), Silang (crossing) and Samping (sideways). Steps or 'langkah' are very important in Silat in order to learn fighting techniques.

Most of the drugs have the capability to reduce or avoid pain in sports. For example, anabolic steroids not only increase strength and power but also can sustain pain. Narcotic Analgesics is another popular drug as a pain killer. Even a Silat athlete with injuries and tissue damage, still can continue practising sport with Narcotic Analgesics. Examples of Narcotic Analgesics are morphine, opium, codeine and heroin. However, in the long period most the drugs can cause cancer, heart disease, physical and psychological dependence, liver disease and death. In other words, users deteriorate mentally and physically. Drugs vary widely in the effects they have on users, they affect the nervous system in very different ways. Some drugs alter the limbic system, and others affect the operation of specific neurotransmitters across the synapses of neurons. For example, some drugs block or enhance the release of neurotransmitter, others block the reception or the removal of a neurotransmitter, and still others mimic the effects of a particular neurotransmitter [Feldman 2011].

Since more than 45% of the Silat Melayu athletes belong to high-income families, so most probably they are able to afford to buy those drugs.

Achievement was indicated as the second highest motive to consume drugs. McClelland developed the Achievement Motivation Theory, which explains that athletes are strongly motivated to succeed in whatever they do, they are not motivated to avoid failure, and do not think about failure at all [Ampofo-Boateng 2009].

**Tab. 5.** A harm-based conceptualization of arguments against doping and drug use in sports

Schneider and Butcher [2000] Categorization of harm	Present categorization of harm
Cheating and unfairness	Harm to others:
Harm:	√ athletes (users)
√ to athletes	unfair advantages, health
√ to (clean) athletes	√ athletes (non- users)
√ to the sporting community	unfair advantages, contract violation, coercion
√ cause by the bans	√ members of the sporting community
Perversion of sport's nature	expectations of disappointment, role models
Unnaturalness and dehumanization	Harm to society
	Harm to the nature of sports:
	√ unfair advantages / de-skilling
	√ rule breaking
	√ compromise of internal goods
	√ unnaturalness

Atkinson [1964] modified McClelland’s original concept of a need for achievement and suggested that achievement motivation was determined by an interaction of both personality disposition and environmental influences. Atkinson developed two concepts of achievement motives, the motive to achieve success (Ms) and the motive to avoid failure (Maf). Consuming drugs was related to the motive of achieving success and avoiding failure. Most of the research showed that athletes who consume drugs are more successful. Therefore some research indicated that consuming drugs among elite athletes is more popular than among non elite athletes. For example research of Vincent Parnabas, Yahaya Mahmood and Ampofo-Boateng [2009], Anshel [1993] and Shmuel [1999] found that elite athletes consume the highest level of drugs to other athletes.

**Level of Drug Usage and Sport Performance**

The results showed the existence of a positive correlation between the level of drug usage and sport performance. Even though the usage of drugs benefits the sport performance, but taking drugs is considered as cheating and unfair, harmful (to users, clean athletes and society), perversion of sports (against its nature), unnaturalness and dehumanization [Schneider, Butcher 2000].

Furthermore, according to Miah [2007], drugs harm the society (socially debilitating effects of doping), cause coercion (taking risks with their health as a consequences of being remain competitive) and contract violation (failing to respect other competitors). Drugs are unnatural and unethical, since sport performance is valued as a natural performance. Table 5, illustrates the arguments against drugs use in sports by Schneider and Butcher [2000] and Miah [2007]. Schneider and Butcher [2000] categorize drugs as harmful, conceptualization arguments against drugs. In contrast, the present categorization of harm reflects these ‘other’ arguments as also indicative of some forms of harm [Miah 2007].

**Conclusions**

The results showed that the reason for taking drugs among Silat participants was highest in order to avoid pain. Besides that, the present research showed that taking drugs benefits the Silat athletes in terms of increasing sports performance, but these are cheating, foul play, unfair, dishonest and unsportsmanlike actions. Furthermore, damaging effects on growth patterns and on psychosocial development, even risk of death or permanent injury, are probable high risks of taking drugs among athletes. The most difficult question is how the sport psychologists and coaches are going to face the challenges to curb these illegal activities in Silat? The government, sport psychologists, counsellors, coaches and sports bodies should play an important role to face the challenges to overcome the evil, drug-enhances among Silat athletes. Drug testing is needed to protect athletes’ health and to achieve fair level field playing in Silat Melayu. Mental skills training is the most obvious and valuable, which sport psychologists can provide in order to prevent athletes from using drugs to avoid pain and enhance performance. Sport psychologists should play an important role to teach Silat athletes’ skills and strategies relate to managing pain and enhancing performance without drugs. Silat athletes should learn mental skills to manage pain and sports performance from sport psychologists to combat the use of drugs.

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## Poziom stosowania narkotyków a rezultaty sportowe w malezyjskiej sztuce walki silat

**Słowa kluczowe:** malajski *silat*, użycie narkotyków, wyniki sportowe

### Abstrakt

Cel. Celem badania jest ocena motywów użycia narkotyków wśród sportowców uprawiających malajski *silat*, a także skorelowanie zależności między poziomem używania narkotyków i uzyskanymi wynikami sportowymi wśród sportowców uprawiających tę sztukę walki.

Chociaż obecność narkotyków wśród zawodowych sportowców i tych z drużyn z wyższych uczelni jest nieznaną, to wg raportu jednego z dostawców narkotyków, 6 z 10 sportowców bierze zakazane substancje.

Metody. Grupa ankietowanych składała się z 103 malajskich sportowców uprawiających *silat*, którzy dobrowolnie uczestniczyli w tym badaniu. Badanie przeprowadzono w grupie zawodników, którzy rywalizowali w Majlis Sukan Universiti Malaysia (MASUM) lub w rozgrywkach sportowych odbywających się między uniwersytetami. Zastosowany kwestionariusz

dotyczył zażywania narkotyków w celu poprawy rezultatów sportowych, by uniknąć bólu, wzmocnić siłę, odpocząć i uniknąć frustracji. Zawodnicy zaznaczyli swoje odpowiedzi na skali od 5-1. Test odnosił się też do poprzednich badań, dzięki czemu narzędzie to zostało udoskonalone.

Wyniki. Autorzy badania wskazują, że sportowcy mogą mieć kilka powodów do sięgania po narkotyki np. aby zwiększyć masę, siłę mięśni i wytrzymałość, skrócić czas rekonwalescencji, poprawić własny wizerunek ciała, zrelaksować się lub zmniejszyć wagę.

Wyniki wykazały, że powodem zażywania narkotyków wśród praktykujących malajski *silat* - najważniejszą przyczyną było uniknięcie bólu, a następnie chęć uzyskania wysokich osiągnięć, poprawienie siły, potrzeba odpoczynku i zmniejszenie frustracji oraz stresu. Wyniki pokazały, istniejącą pozytywną korelację

pomiędzy poziomem używania narkotyków a wynikami sportowymi (0.597), która jest statystycznie istotna ( $P < .01$ ).

Wnioski. *Silat* malezyjski jest jednym z urazowych sportów i wymaga wielu lat treningu; powoduje liczne urazy, które bywają niwelowane przez użycie np. anaboliów. Choć użycie zabronionych substancji sprzyja lepszym wynikom sportowym i redukuje ból, to jednak przyczyniają się one do narażania zdrowia, a także nieetycznego zachowania wobec innych sportowców i całego społeczeństwa; powodują wypaczenie idei sportu, są nienaturalne oraz stanowią łamanie umowy sportowej.

Autorzy podkreślają ogromną rolę psychologa sportowego, który mógłby uczyć umiejętności i strategii dotyczących zarządzania bólem i zwiększyć wydajność sportowców uprawiających *silat* bez używania narkotyków