

CHAPTER 2

2.1 Introduction

The state of being aware of something is defined as awareness. It is the ability to immediately know and sense events, as well as to feel or be alert to things. Another definition states that it is a condition in which an individual is aware of some information and that information is directly available to apply to a wide range of behavioural activities. The idea is frequently used interchangeably with consciousness, and it is also thought to be consciousness itself.

The states of consciousness are linked to the states of experience; therefore, the structure of awareness is mirrored in the structure of experience. The use of banned medications, substances, or therapies by athletes to increase athletic performance is referred to as "doping." Doping by athletes has been practiced for millennia. However, it has recently gotten more attention because of a wide range of potential performance-enhancing medications becoming available, as well as high-profile examples of doping by professional athletes being publicized in the media.

The concept of improving performance through medication therapies and diet dates back centuries to the advent of sports. Athletes were given specific diets as well as herbs and plants that were considered to boost physical power and performance. Doping was first detected in 1904 during the Olympic Games when a runner was injected with strychnine to aid speed and give him the strength to finish the race.

Even though you might be concerned, using drugs will not make a game-high last permanently or decrease tension. By describing how drugs affect our bodies, you may counter your players' misunderstandings about drug effects and clarify how drugs truly influence our bodies. It's possible that you'll be able to keep your team drug-free. Please

explain: At first, drugs may make players feel great, but this is not the case. It is common for unpleasant feelings to be followed by happy ones. Drugs do not solve problems; instead, they worsen them and make it more difficult to cope. It's considerably more tough with them. Drugs do not eliminate stress; they merely disguise it. They make people feel anxious. You will not improve your performance on the field by taking drugs. Apart from anabolic steroids, which are a sort of drug.

A substance or therapy is considered doping if it fits two of the three criteria listed below, according to the World Anti-Doping Code, which was adopted by WADA in 2008. It improves performance, it puts the athlete's health in danger and it goes against the spirit of the sport.

Doping comes from the word dope which is a mixture of opium and narcotics which was originally used for horse racing in England. Further, para experts give the following definition of doping:

- a. Doping is the administration of drugs/substances orally/parenterally to a person athlete in competition, with the main purpose of improving improper performance.
- b. Doping is the giving/use by competition participants, in the form of substances that foreign to the organism through any route or physiological substance in quantity which is abnormal or given through an abnormal way, with a purpose improve performance. (Djoko Pekik: 2006: 115). The following are doping substances or prohibited substances according to LADI (2007: 61-65) is as follows:

a. Stimulants

Stimulants are drugs that directly affect the nervous system centre. This stimulant consists of various drugs that can increase physical freshness, reduce fatigue, and increase the spirit of competition but can also reduce alertness, so that it can causing accidents to athletes. Amphetamines and compounds is a type of stimulant that causes the most problems.

b. Narcotics

Athletes use narcotics only to cure the feeling the pain, but not treating the cause of the pain, so the injury will get worse and can cause the risk of physical dependence and psychic.

c. Cannabinoids

Derived from plants that are psychoactive, can be in the form of cannabis, marijuana, hashish. The most active substance from the cannabis plant is tetrahydrocannabinol (THC).

d. Anabolic Steroids

It is a group of medicines, both natural and synthetic, that have chemical structure and pharmacological activity like male sex hormones testosterone. Anabolic steroids are often abused by athletes for increase muscle mass, energy and strength, as well as increase appetite eating and competitive spirit. Exogenous steroids are steroid compounds that cannot be produced by the body naturally, for example: boldenone, stanozolol, danazol, etc. Endogenous steroids are steroid compounds that can produced by the body naturally, such as: Andros enediol, testosterone, etc.

e. Peptide Hormones

Compounds that belong to this group are Chorionic hormones gonadotropin (HCG), Luteinizing hormone (LH), growth hormone (HGH), insulin like growth factor (IGF-1), erythropoietin (EPO), insulin, and corticotrophins.

f. Beta-2 Agonists

Beta-2 agonists are generally used in the treatment of asthma. If this substance circulating in the blood will give an anabolic effect. Therefore, beta-2 agonists are prohibited except formoterol, salbutamol, salmeterol, and terbutaline which is allowed to be used in the form of inhalation preparations to prevent or treat asthma (asthma due to sports or conditions bronchoconstriction).

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g. Compounds with Anti-Oestrogenic Activity

The compounds of this group are generally used as hormone therapy breast cancer patients, including aromatase inhibitors and tamoxifen. Aromatase inhibitors work by reducing the amount of oestrogen circulating in the blood. These compounds can be abused for eliminate unwanted effects due to the use of anabolic steroids.

h. Masking Agents

Masking agents are substances that have the potential to interfere

production (excretion) of prohibited substances. On urine samples, will cover

the presence of substances that are prohibited or change the condition of the blood. Included in masking agents.

i. Glucocorticoids

Glucocorticosteroids are powerful anti-inflammatory compounds. In general, used to treat chronic inflammatory conditions such as arthritis, asthma, joint inflammation and allergic reactions. Gluc corticosteroids are prohibited its use in the competition by giving it orally (drinking), per-rectal (into the rectum), and intravenous injection as well intramuscular. Gluc corticosteroid use is allowed outside competition. For other ways of use, such as: topical use (holes) for the area around the anus, ears, skin, by inhalation, intra-articular, nose and points then athletes need to include TUE. Doping methods (LADI: 2007: 30-31) include:

a. Increases oxygen transfer:

- 1) Blood doping, including using one's own blood (autologous), the blood of another person who is homologous or heterologous or using red blood cell products from any source.
- 2) Using products that increase uptake, delivery or oxygen delivery, including but not limited to perfluorochemicals, efaproxiral (RSR13) and, modification products haemoglobin (e.g. haemoglobin-based blood substitutes, microencapsulated haemoglobin products).

b. Chemical and physical manipulation:

1) Damage, or damage attempt, to change the integrity and validity samples collected during doping surveillance are prohibited. These include but are not limited to catheterization, replacement and or changing urine.

2) Intravenous infusion is prohibited. In acute medical conditions where the method this is considered important required Therapeutic Use Exemption that occurs low tide

Gene doping use of cells, genes, gene elements, or modulation of gene expression not for medicinal purposes, which has the capacity to increase the performance of athletes is prohibited.

2.2 IV Of The Study

R Parajuli – 2021 In his study, half of the participants had a poor understanding of substance abuse. A self-structured knowledge questionnaire was used to collect data in his study. According to the data, more than half of the respondents had a poor understanding of drug misuse, with Brahmin/Chhetri students knowing much more than Janajati, Dalit, and Madhesi students. As a result, he believes that a one-of-a-kind educational package should be incorporated in the course curriculum. Despite the fact that his study had a constraint in that it was limited to Shree Janak Secondary School in Gaidakot Nawalparasi, as a result, the conclusion cannot be applied to another situation. The recommendation Intervention measures such as health education and awareness initiatives should be implemented to keep drug abuse knowledge at an optimal level.

According to Mohamad Johdi Salleh-2012 the parties' challenges and limits The National Anti-Drug Agency, particularly the Serenti Center administration, in carrying out their roles and obligations, as well as effective community service programmes to

enable the community to work together to tackle this problem. The study identified four primary characteristics that contribute to drug addiction problems based on a short questionnaire: peer pressure, a desire to experiment, a lack of religious instruction, and a lack of self-resilience or motivation. The greatest method to address this problem is to prevent it from occurring in the first place. As a result, all parties are expected to fulfil their responsibilities. It is impossible if only one side works tirelessly to eliminate these symptoms without assistance or support.

According to Qiu Ting Chie - 2015 The students agreed that early understanding and exposure to the consequences of drug usage are critical components of prevention programmes. Many kids, according to some, lack the motivation to read, learn, or investigate on their own. As a result, they believed that implementing mandatory programmes would be advantageous. As a result, measures to raise awareness in schools before kids have access to drugs should be implemented. Some recommended class assignments to assist them become more aware of and comprehend the effects of drugs on their bodies, he added. As a strategy to raise interest and awareness among students, interactive learning techniques integrating experiments connected to the chemical activity of various medications in the body were suggested.

2.1.2 Dependent Variables

Haftom Gebregergs Hailu's research on doping knowledge, attitude, and practice among pharmacists in Dessie, Northeast Ethiopia. This study looked at pharmacists' knowledge, attitudes, and practices regarding the use of doping drugs by Ethiopian athletes. SPSS version 20.0 for Windows was used to feed and analyse the data collected. Tables were created to show the frequency and proportion of responses. To

see if there was a link between socio-demographic factors and doping awareness, researchers used linear regression.

The study was conducted between April and March of 2018 and focused on community pharmacists in Dessie, Northeast Ethiopia. The questionnaires were broken down into four sections. The first section of the survey asked about the pharmacists' demographic characteristics, such as gender, age, years of experience, college of study (private or governmental), current qualifications, working institutions (private or governmental), and whether they regularly play and watch sports. The dependent variable. The knowledge of pharmacy professionals about doping and anti-doping was the dependent variable and the not dependent Variables were The socio-demographic characteristics of pharmacy professionals were the independent variables.

Furthermore, the term "doping" is supposed to have derived from the Dutch word "doop," which refers to a thick opium juice. Since the dawn of competitive sport, doping has most certainly occurred in some form or another. The World Anti-Doping Agency (WADA) defines doping as the presence of a prohibited substance or its metabolites or markers in an athlete's bodily samples, the use of a prohibited substance or method, tampering, providing false information to an anti-doping organization, possession of a prohibited substance or method, trafficking, and administration of any prohibited substance or method, trafficking, and administration of any prohibited substance or method. Assisting, encouraging, aiding, abetting, conspiring, covering up or any other type of intentional complicity involving an anti-doping rule violation.

The researcher said that most athletes who use performance-enhancing drugs (PEDs) by athletes are prohibited for three reasons: first, PEDs may be damaging to their health and well-being. Second, doping substances make sports events unjust by giving

individuals who utilize banned substances an unethical advantage. Third, athletes are held up as role models in society, and their use of performance-enhancing substances may encourage aspiring young athletes to do the same.

According to Peter J. Ambrose (2003), a wide range of medications and dietary supplements have been shown to improve athletic performance. Many of these substances, however, have negative side effects and are banned by many sports' regulatory bodies. Athletes utilize a variety of medications to improve their performance, many of which are prohibited by major sports governing bodies. Athletes are sold a plethora of nutritional supplements that claim to have ergogenic properties. Some of these popular supplements have been shown to improve performance, while others have not. These medications' and dietary supplements' side effects are mentioned. Doping practices are usually divided into four categories. Compounds that increase muscle mass, reduce recovery time, boost energy and/or endurance, and chemicals that mask the presence of other drugs are some examples. Here are a few examples of doping drugs and methods.

Anabolic steroids have been commonly utilised in professional sports since the 1950s, when they were first used by weightlifters. Weightlifting, football, baseball, and a variety of other strength-based sports have used them extensively. Anabolic steroids made from synthetic testosterone derivatives are routinely used. The purpose of using them in doping is to increase muscular mass and lean body mass. These medications can be taken orally or intravenously, and many different types are frequently combined to achieve the greatest effects. Users take these drugs for the intended results, such as increased muscle strength and growth, however there are several significant and moderate negative effects.

Side effects of anabolic steroid use include skin infections, acne, permanent gynecomastia (male breast tissue development), and testicular atrophy. Psychosis, liver haemorrhage, an increased risk of heart attack, and sudden death have all been connected to the use of anabolic steroids. Due to the multiple severe health effects associated with their use, anabolic steroids are categorised as controlled substances in the United States, are permanently listed on the World Anti-Doping Code, and are routinely tested for in elite athletes.

Stimulant medicines are a wide range of substances that, when used for doping purposes, aim to increase an athlete's stamina, reduce weariness, and discomfort, and improve mental function and behaviour. Cocaine, amphetamines, and ephedrine are some of the most well-known drugs in this category. Amphetamines were formerly popular among athletes as a pain reliever and tiredness reliever. Amphetamine use has been documented in a range of sports, including cycling, soccer, and track and field, with the 1936 Olympics being the first to mention it.

Finally, he discovers that Oxygen Transport exists (sometimes known as "Blood Doping"). Most athletes will try to improve their athletic performance by increasing the amount of oxygen in their blood. Because oxygen is one of the basic nutrients for all cells, increased oxygen transport to tissues can improve endurance and athletic performance. Athletes have attempted to achieve this goal in a variety of ways. Some athletes will have their blood drawn months before a competition, only to have it re-transfused into the same athlete moments before the competition to help them increase their blood volume and oxygen levels. Finally, Oxygen Transport (sometimes referred to as "Blood Doping") is the process of moving oxygen from one location to another. Most athletes will try to improve their performance.

Here in my study the I will find out the knowledge level of substance use in sports of the athlete that are in sports school and higher education levels athletes so that they can be provides proper education so that they are fully aware.

Even though this practise has been around for centuries, it is still practised at all levels of professional events. While many methods have been linked to increased performance, almost all of them are damaging to the athlete's health in some way. Many organisations, like the World Anti-Doping Agency (WADA) and the International Olympic Committee (IOC), have policies and testing in place to minimise the incidence of doping and eliminate it from sport. Given the high value put on athletic achievement, the celebrity showered on great athletes in today's culture, and the ongoing discovery of new performance-enhancing drugs, doping is expected to be a problem for many years. amounts of oxygen. Many athletes have received sanctions ranging from the loss of Olympic medals or sports titles to lifetime bans from competing in sports. In general, previous studies, such as Spalletta & Ugolini (2014), indicated that numerous athletes-related factors play a role. Doping-related scandals Professionals have plagued the world of sports, particularly cycling, for the past two decades. For example, there are issues concerning athletes Festina and Pantani, Operación Puerto, Armstrong, and others. For example, in Italian sports journalism, media reporting on doping has been a major issue in cycling news since cyclist Marco Pantani, Italy's most famous rider in the last two decades, has been accused of doping, leading to his disqualification from the Giro d'Italia in 1999 (Papuzzi, 2010).

A study was done in June 2017 at Sultan Mizan Zainal Abidin Polytechnic (PSMZA) to evaluate the problem of student involvement in symptom smoking among new students, according to Wan Salmizi Bin Wan Mahmood (2017). The survey included

295 students. The purpose of this study was to limit incoming PSMZA students' participation in the smoking symptoms session in June 2017. We conducted research using both qualitative and quantitative methods. Data for the study was gathered through the distribution of questionnaires and interview sessions. According to the conclusions of the study, 99 percent of respondents are aware of the dangers smoking cigarettes. While 95% of individuals polled are aware of the dangers of smoking.

R.J. Donovan 2014 studied the relationship between athletes' goals to avoid doping and their behaviour when confronted with novel cuisine. The participants were watched to see if they refused to take or consume the lollipop, as well as if they read the ingredients. The survey examined many types of motivation, such as autonomous and controlled motivation, motivation, doping intent, and doping avoidance behaviour adherence. According to the findings, young athletes who used controlled reasons to avoid doping in sports (e.g., not getting caught) reported higher adherence to behaviours related to avoiding and monitoring prohibited substances, whereas those who used autonomous reasons (e.g., anti-doping as a life goal) seemed more willing to read the food ingredients provided. When it comes to athletes that don't have a lot of control over their motivation, the effect of.

So here I'm called to study that how athlete fight and motivated to not take substance to enhance their performance and end up with addictions to that substance.

He also mentioned that doping in sports is becoming a severe public health issue as it grows and diversifies, involving physiological, mechanical, and pharmacological procedures. It can be found in both professional and recreational settings. Despite millions of dollars being invested in advanced scientific research, drug detection methods, doping control procedures, educational campaigns, policy advancements, and

the imposition of strict penalties for dopers, the use of performance-enhancing drugs (PEDs) has not decreased significantly in sport. Athletes', coaches', and sponsors' financial interests, social pressure to achieve greater outcomes, media coverage of sporting events, and human factors. Nature may play a role in the widespread use of PEDs. For health experts such as physicians, pharmacists, and nutritionists, as well as sports scientists and organizations, and society, this offers a significant task.

After recruiting and a half-day training under the supervision of the lead investigators, data was gathered by one druggist who had no affiliation with the institutions. Data were reviewed for completeness, accuracy, and consistency just after it was collected, and confidentiality was preserved. Cronbach's alpha test was used to determine the questionnaire's reliability (74 percent).

In a conclusion, the researcher mentions that "It is the responsibility of the athlete to ensure that no prohibited substance enters his or her body," according to the World Anti-Doping Agency. The goal of this study was to analyse community pharmacists' knowledge, attitude, and practice regarding doping and anti-doping. Pharmacists are in an invaluable position as drug experts, providing much-needed information on which pharmaceuticals and nutritional supplements are safe for athletes.

This next study was conducted in a Japanese university and the goal of this study was to learn more about Japanese university athletes' anti-doping (AD) education, doping control experience, and AD understanding following the World Anti-Doping Code (Code). 514 male athletes (Mage = 19.53 years, SD = 1.13) and 629 female athletes (Mage = 20.99 years, SD = 1.07) participated in the study. We inquired about their doping control experience and the AD instruction they had received. Then, using the

World Anti-Doping Agency's Athlete Learning Program about Health and AD (ALPHA) test, we assessed their understanding of AD.

Until recently, anti-doping (AD) education has primarily been performed with international-level athletes. Many athletes believe that AD does not apply to them because they are elite athletes competing in top national or international tournaments. For that reason, many athletes believe that AD does not apply to them. However, AD education methods should be undertaken with all athletes to achieve an awareness of doping as a component of the laws of the sport. All athletes, regardless of their competition level, must understand and follow AD regulations.

However, the true amount of AD knowledge among all athletes is unclear now. There are no conventional research procedures or canonicalized AD knowledge tests/questionnaires. It indicates that there aren't enough qualitative and quantitative measurements available to cover all the AD requirements, similar to the World Anti-Doping Code (Code). As a result, there hasn't been any inquiry into the facts of the entire AD knowledge based on the Code.

WADA created an online e-learning instruction system called "Athlete Learning Program about Health and AD (ALPHA)" for athletes' support staff (ASP), which includes athletes and coaches at all levels of competition. ALPHA's main educational content is divided into the following categories: 1. Doping control; 2. Athlete location; 3. Therapeutic use exemptions (TUE); 4. Results management; 5. Medical reasons not to dope; 6. Ethical reasons not to dope; 7. Practical aid to keep clean; 8. Dealing with pressure.

ALPHA is a universal AD method for understanding the Code that provides for a wide range of AD learning for all athletes. Athletes can achieve sufficient AD knowledge and evaluate the degree of their AD knowledge based on Code by learning the contents of ALPHA. Before and after e-learning, ALPHA provides 12 questions (4-Select) assessments to measure how much AD information an athlete has concerning the eight learning elements that cover the Code. Furthermore, no instrument, assessment, or questionnaire for assessing AD knowledge that covers the complete Code exists. The current ALPHA test has not been well tested, however it was developed by WADA's social science research team. The majority of the research on AD knowledge has been done on elite athletes who are likely to be tested for doping. Self-reported surveys have primarily been utilized to uncover the psychological features of doping and behavior reactions. As a result, it attempted to aid Japanese athletes' development by elucidating university athletes' doping control experiences. The findings of this survey are expected to aid and give a starting point for Japanese athletes to learn about AD education.

Furthermore, save for a small number of elite athletes, AD education is currently implemented informally and randomly. Furthermore, because the AD education implementation technique is left up to the implementation site, it is assumed that the information to be obtained and the knowledge and understanding are not the same. Due to the ad hoc nature of AD education, it is necessary to investigate the current status of AD knowledge.

The ethics committee of Juntendo University's Graduate School of Health and Sports Science permitted them to perform this study. The survey was conducted from September to December 2016, with surveys being filled out and collected during courses at each of the participating universities. The goal of the study was explained

and written, and verbal informed consent was obtained. It was made clear to participants that their privacy would not be jeopardized. The value of AD education and the need for educational interventions were discovered in this study. All athletes, regardless of competitive level, should receive AD education based on the Code 2015, and international/national competition level competitors seemed to be particularly well-informed on doping control. The production of teaching materials for AD education should consider the most recent medical understanding of the disease. Furthermore, following the present Code, it is required to develop and standardize world-class learning content that can improve people's understanding of Alzheimer's disease. It will be required in the future to investigate the effects of WADA-ALPHA e-learning.

Conclusions

As a conclusion almost all researcher has written about awareness and knowledge about drug abuse and doping or drug use for adults. Here my research will on school's student athlete in early stage is very important to make sure they are prepared to face all the challenges out there in their life. Specially in the high-performance sports in their life.