

RAZLIKE U PERCEPCIJI, ZNANJIMA I STAVOVIMA STUDENATA FIZIČKOG VASPITANJA I SPORTA O KORIŠĆENJU NEDOZVOLJENIH SUPSTANCI U SPORTU

DIFFERENCES IN PERCEPTION, KNOWLEDGE AND ATTITUDES STUDENTS PHYSICAL EDUCATION AND SPORT ON USE OF PROHIBITED SUBSTANCES IN SPORT

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Sažetak: Problem upotrebe zabranjenih supstanci (dopinga) u sportu je bio, jeste i biće aktuelan problem koji narušava sam duh sporta, ljepotu i zadovoljstvo, a vrlo često i zdravlje sportiste. Zbog toga je neophodno pristupiti rješavanju ovoga problema, ako je moguće i trajno, mada je to nekada jednostavno neizvodljivo. U istraživanju je učestvovalo ukupno 200 studenata Fakulteta fizičkog vaspitanja i sporta, od čega 100 studenata Univerziteta u Istočnom Sarajevu (Bosna i Hercegovina) i 100 studenata AMU Aligarh PU (Indija), starosne dobi od 18-26 godina. Od ukupnog uzorka 170 (85%) su bili ispitanici muškog pola, dok je 30 (15%) ženskog pola. Osnovni cilj istraživanja je bio da se provjeri nivo znanja i utvrde stavovi studenata i utvrde njihove međusobne razlike o upotrebi zabranjenih supstanci u sportu. Za prikupljanje neophodnih informacija korišćen je anonimni anketni upitnik sa 13 jasno definisanih pitanja, (11 pitanja zatvorenog i 2 pitanja otvorenog tipa) koja su se odnosila na određena znanja, stavove o doping u sportu. Dobijeni su relevantni rezultati koji su globalni pokazatelj informisanosti, znanja i stavova populacije studenata fizičkog vaspitanja i sporta o sve većem problemu današnjeg modernog sporta koga nazivamo doping. Od ukupnog uzorka, čak 85% studenata oba subuzorka su označili atletiku kao sport sa najviše doping afere, a zatim slijedi biciklizam (43%), bodi bilding i dizanje tegova (22%), dok su sportske igre sa (28%), Cricket (25%), Streljaštvo i Šah sa (19%), kao sportovi sa najmanjim brojem doping afere.

Ključne riječi: farmakološka sredstva, zdravstveno stanje, posljedice, prevencija, edukacija.

Abstract: The problem of the use of banned substances (doping) in sport has been, is and will be an ongoing problem that undermines the very spirit of sport, beauty and pleasure, and very often the health of athletes. Therefore, it is essential to solve this problem, if possible, permanently, although it is sometimes simply impossible to do. The research included total 200 students from Faculty of Physical Education and Sport, of which 100 students were from the University in Eastern Sarajevo (Bosnia and Herzegovina) and 100 students from the Department of Physical Education AMU Aligarh (India), aged 18-26 years. Of the total sample, 170 (85%) of the participants were males, while 30 (15%) were females. The main objective of the study was to test the level of differences in knowledge and identify students' attitudes about the use of prohibited substances in sport. To collect the necessary information has been used an anonymous questionnaire with 13 clearly defined questions (11 closed questions and two open-ended questions) that are related to specific knowledge, attitudes about doping in sport. The obtained results are relevant to the global indicator of awareness, knowledge and attitudes of the population of students about the problem of today's modern sport which is called doping. Of the total sample 85% of the students marked the athletics as a sport with the most doping scandals, followed by Cycling (43%) and Body building and Weightlifting (22%), while the Sports games (28%), Cricket (25%), Shooting and Chess (19%), as well as sports with the least number doping scandals.

Key words: pharmacological agents, health condition, consequences, prevention, education.

Uvod

Posmatrano kroz istoriju čovjek je uvijek nastojao da vještački poveća učinak u sportu, a prvi slučajevi dopinga su zabilježeni na Olimpijskim igrama, kada Filostrat opisuje da doping nije i nikada nije bio samo sportski fenomen, već su ljudi posezali za dopingom ili drogama gdje god bilo potrebno da budu vrlo moćni i jaki (Laure, Binsinger, & Lecerf, 2003). **Pioniri dopinga u modernom sportu su bili plivači, koju su na takmičenju 1865 preplivali Amsterdamski kanal i u Amsterdamu prednjačili u svim disciplinama.** Prve informacije o dopingovanim sportistima imamo na modernim OI iz St. Louisa kada je američki pobjednik maratona Hicks na medicinskoj njezi primio nekoliko potkožnih injekcija strihnin-sulfata (Pupiš Pupiš, & Polgar, 2006).

Međunarodni olimpijski komitet je 1975. godine je zabranio korišćenje svih oblika stimulanata. Istovremeno, bez obzira na deklarativno zalaganje za očuvanje sportskog duha, dobar dio sportskih saveza nastavio je sa razvojem hemijskih i bioloških sredstava, kao i metoda koje će omogućavati konstantno pomijeranje granica izdržljivosti i izvodljivog. Mnoge metode su krajnje nehumane i usmjerene samo ka zloupotrebi fizičkog i psihičkog integriteta sportiste/sportistkinje i raznih zakulisnih političkih igara (Živanović, 2000; Pavlović, 2006).

Najnovije oduzimanje medalja biciklisti i pobjedniku Tourn de France Lensu Armstrongu je svakako iznenađujući podatak ali i upozorava sve one koji se upuštaju u doping sredstva da će biti otkriveni i samim tim izgubiti mnogo više od medalje, ugled i čast u svijetu sporta.

Posljednje OI u Londonu su takođe obilježile doping afere nekih sportista, gdje je pred same igre diskvalifikovano 12 sportista (borilački sportovi, atletika, biciklizam, gimnastika, vodeni sportovi) a oduzete su i dvije medalje nakon igara. Zlato je oduzeto Bjeloruskoj bacačici kugle Nadzey-i Ostapchuk koja je testirana na methenolone i bronza rvaču Uzbekistancu Soslan Tigievu (Grohmann, 2012a). To se dogodilo iako je prije OI u Londonu bilo najavljeno da će polovina takmičara biti testirana na droge sa 150 naučnika, koji će uzeti uzorke do kraja Paraolimpijskih igara. Takođe je navedeno da će svaki takmičar koji osvoji medalju biti podvrgnut testiranju, a Olimpijski anti-doping laboratorij će testirati do 400 uzoraka svaki dan za više od 240 zabranjenih tvari, gdje će u toku samog takmičenja biti dostupni za testiranje bez bilo kakvog obaviještenja (BBC, 2012). Šokantan je podatak zvaničnika Svjetske anti-doping agencije (WADA), John Fahey, koja je objavila da je do 24. jula čak 107 sportista bilo kažnjeno zbog dopinga u proteklih šest mjeseci do 19. juna (Grohmann, 2012a,b).

INTRODUCTION

Looking through the history man has always tried to artificially enhance performance in sport, and the first cases of doping were reported in the Olympics, when Philostratus describes that the doping is not and has never been just a sports phenomenon, but the people resorted to doping or powerful and strong (Laure, Binsinger, & Lecerf, 2003). Pioneers of modern doping in sport were swimmers, they swam at the 1865 contest the Amsterdam channel and they were excelling in all disciplines. The first information about the doped athletes we have in the modern Olympics from St. Louis when American winner of the marathon Hicks while on medical care received several subcutaneous injections of strychnine sulphate (Pupiš and Polgar, 2006).

The International Olympic Committee in 1975 prohibited the use of all forms of stimulants. At the same time, regardless of the stated commitment to preserve the spirit of sport, most of the sports federations continued with the development of chemical and biological agents and methods that will enable consistently move the limits of endurance and feasible.

Many methods are extremely inhumane and only directed towards the misuse of physical and psychological integrity of sportsmen / sports women, of a variety of backroom political games (Živanović, 2000, Pavlović, 2006).

The latest seizure of medals from cyclist and Tour de France winner Lance Armstrong is certainly a surprising fact and warns all those who engage in doping substances to be detected and thus lose much more than medals, prestige and honor in the world of sports.

The last Olympics in London were also marked by doping scandals of some athletes, when before the start of the games itself 12 athletes were disqualified (martial arts, athletics, cycling, gymnastics, water sports) and two medals were seized after the games. Gold has taken from Belarusian Nadzeya Ostapchuk ball thrower who was tested on Methenolone and from Uzbeks wrestler Soslan Tigievu the bronze medal. This happened although before the Olympic Games in London was announced that half of the competitors will be tested for drugs with 150 scientists, which will take samples by the end of the Paraolympic Games. It was also stated that any athlete who wins a medal will undergo testing and Olympic anti-doping lab will test up to 400 samples per day for more than 240 banned substances, where in the course of the competition they will be available for testing without any notice (BBC, 2012). A shocking fact of the official of the World Anti-Doping Agency (WADA), John Fahey, who published that to 24 July 107 athletes were sanctioned for doping in the last six months to 19 June (Grohmann, 2012a,b).

Znanja i stavovi studentske populacije o problemu doppinga u sportu su bila predmet istraživanja nekih autora. Autori (Melia, Pipe, & Greenberg, 1996) su sproveli anketu u pet Kanadskih regija koja je obuhvatila 107 škola sa 16.119 učenika, nasumično odabaranih sa ciljem određivanja prevalencije upotrebe anaboličkih-androgenih steroida, njihovih stavova i znanja o doppingu. Rezultati su pokazali da je veći broj koristio zabranjene supstance u godini prije istraživanja. 29,4% ispitanika se izjasnilo da su ubrizgali neku supstancu, a 29,2% je dijelilo iglu u toku ubrizgavanja anabolički-androgeni steroida. Značajan broj ispitanika je izjavilo da koriste druge supstance (kofein, 27%; dodatne proteine, 27%; alkohol, 8,6%; protiv bolova, 9%; stimulanse, 3,1%; „doping metode”, 2,3%; beta-blokatore, 1%) u pokušajima da poboljšaju sportski rezultat. Ovi rezultati su bili alarmantni i neočekivani za nastavnike, zdravstvene i sportske radnike. Švedski autori Kindlundh, Isacson, Berglund, & Nyberg, (1998) su sproveli istraživanje među adolescentima srednjih škola Uppsale kako bi utvrdili stepen uzimanja zabranjenih droga u sportu. Anonimni upitnik je obuhvatio 2742 učenika. Rezultati su pokazali da je 2,7% muškaraca i 0,4% djevojaka koristio doping u nekom trenutku svoga života. Kao glavni razlog korištenja doppinga su naveli poboljšanje fizičkog izgleda i poboljšanje sportskih performansi. Istraživanja korišćenja anaboličkih androgenih steroida (AAS) u slučajnom uzorku iz pet teretana su sproveli Kanajama i saradnici (Kanayama, Gruber, Pope, Borowiecki & Hudson, 2001). Dobijeni su rezultate da 3,5% ukupne populacije koristi AAS, od čega 5,4% obuhvata mušku populaciju.

Pojedini domaći istraživači su istraživali prevalenciju korišćenja AAS na srpskoj populaciji Body bildera (Jovanović & Radovanović, 2001). Na uzorku rekreativnih body-bildera dobijeni su rezultati da je 5,23% ispitanih, bar jednom, koristilo AAS. Alarmantne rezultate istraživanja su dobili Poljski autori (Rachoń, Pokrywka, & Suchecka-Rachoń, 2006). Oni su putem poznatih internet portala sproveli anketu tokom jednog mjeseca sa ciljem utvrđivanja prevencije upotrebe droga u sportu među mladima. Uzorak je obuhvatio 3687 (muškaraca 48,2%) i (žena 51,8%), dobi 19-20 godina. Pitanja su se odnosila na njihovu tjelesnu aktivnost, vježbe i ponašanje, nivo obrazovanja i korištenje anaboličkih androgenih steroida (AAS). Rezultati su pokazali da je učestalost upotrebe AAS kod muškaraca 6,2% i 2,9% kod žena. Muški AAS korisnici, u odnosu na nekorisnike, bili su češće zabrinuti zbog njihovog fizičkog izgleda, bili su manje obrazovani i često se bavili nekom sportskom aktivnošću. Među ženskim AAS korisnicima, nema značajne razlike u vezi

Knowledge and attitudes of university students about the problem of doping in sport has been the subject of research by other authors. The authors Melia, Pipe, & Greenberg, (1996) conducted a survey of five Canadian regions, which included 107 schools with 16,119 students, randomly selected in order to determine the prevalence of the use of anabolic-androgenic steroids, their attitudes and knowledge about doping. The results showed that most of them used banned substances in the year prior to the survey. 29.4% of respondents said they injected some substance, and 29.2% shared the needle during injection of anabolic-androgenic steroids. A significant number of respondents said they used other substances (caffeine, 27%, extra protein, 27%, alcohol 8.6%; for pains, 9%; stimulants, 3.1%; “doping methods”, 2.3%, beta-blockers, 1%) attempting to improve sport performance. These results were unexpected and alarming for teachers, health and sports workers. Swedish authors Kindlundh, Isacson, Berglund, et al. (1998) conducted a survey among high school adolescents Uppsala in order to determine the degree of taking banned drugs in sports. Anonymous questionnaire included 2742 students. The results showed that 2.7% of men and 0.4% of girls used the drug at some time in their lives. As the main reason for doping they cited the improvement of physical appearance and the improvement of athletic performances. The research of use of anabolic androgenic steroids (AAS) in a random sample from five gyms conducted Kanayama, Gruber, Pope, et al. 2001). They got the results that 3.5% of the total population uses AAS, of which 5.4% is the male population.

Some home researchers have investigated the prevalence of AAS use on the Serbian population (Jovanovic & Radovanovic, 2001). In a sample of recreational bodybuilders, there were obtained the results that 5.23% of bodybuilders, at least once, used the AAS. The alarming results of research obtained Polish authors (Rachon, Pokrywka, & Suchecka-Rachoń, 2006). They are through known internet portal conducted a survey during one month in order to determine the prevention of drug use among young people in sport. The sample consisted of 3687 (48.2% of men) and (women 51.8%), aged 19-20 years. Questions were related to their physical activity, exercise and behavior, level of education and the use of anabolic androgenic steroids (AAS). The results showed that the prevalence of AAS use among men 6.2% and 2.9% in women. Male AAS users, compared to non-users, were more concerned about their physical appearance, were less educated and often engaged in a sporting activity. Among female AAS users, there are no significant differences regarding lifestyle or sports participation. However, when compared to

životnog stila ili učestvovanja u sportu. Međutim, u odnosu na nekorisnike, ženski AAS korisnici su bili manje obrazovani, gdje se došlo do zaključka da je upotreba AAS stvarnost u Poljskoj i može postati ozbiljan zdravstveni problem među adolescentima i mladima. Grupa američkih autora u obimnoj studiji su prikazali rezultate nacionalne ankete koja je pokazala upotrebu anaboličkih steroida, učestalost korišćenja i njihove trendove među američkim studentima. Podaci su prikupljeni kroz ranije ankete preko 40.000 studenata sa 119 fakulteta u periodima 1993, 1997, 1999, 2001. Rezultati su pokazali da je u tom periodu 1993-2001 došlo do porasta upotrebe zabranjenih supstanci.

Wanjek, Rosendahl, Strauss, & Gabriel, (2007) su objavili rezultate istraživanja sprovednog 2004 u Tiringiji (Njemačka) na osnovu ankete u 16 osnovnih, 4 srednje, tri sportske i 4 strukovne škole sa ciljem trenutne situacije i mogućih intervencija kada je u pitanju upotreba nedozvoljenih supstanci. Od ukupnog broja 2287 učenika čak 15,1% koristilo zabranjen doping iz prethodne godine. Od toga je 0,7% konzumiralo anaboličke androgene steroide (AAS); 0,4% hormon rasta; 2,4% stimulanse; 13,2% kanabis; 0,1% diuretike; 2,2% kokain/heroin i 0,3% erythropoeitin. Šta više, 490 nesportista je potvrdilo da za 5% više koriste doping od rekreativnih sportista (N=1254) i gotovo tri puta više od sportista (N=497). Sve tri grupe nesportisti, rekreativci i sportisti imali su loše rezultate na testu znanja o doping u cjelini, s prosječkom ispod 60% u svakom slučaju. Nalazi studije upućuju na potrebu za poboljšanjem specifičnih znanja o doping u među učenicima i studentima i da njihov stav prema doping u mora biti promijenjen. Slična istraživanja su sprovedena u nekolike zadnje godine od strane Ukrajinskih autora koji su čak publikovali nacionalnu studiju u saradnji sa WADA-om (Bondarev, Ajitskiy, Galchinsky, Labskir, & Druz, 2008; Bondarev, Galchinsky, Labskir, Druz, & Ajitskiy, 2009; Bondarev, & Sirenko, 2010). Slična istraživanja koja su se bavila problemom znanja i prevencije o korišćenju nedozvoljenih doping supstanci na populaciji studenata fizičkog vaspitanja i sporta su realizovana od strane Pavlovic and Pupiš (2013), Pavlovic, & Idrizović (2013), i Khan et al. (2014).

Osnovni problem koji je definisan u ovom istraživanju jesu razlike u percepciji, stavovima i znanjima između studenata Fizičkog vaspitanja i sporta Univerziteta u Istočnom Sarajevu (Bosna i Hercegovina) i studenata AMU Aligarh PU (Indija) o upotrebi i mogućoj prevenciji dopinga u sportu.

non-users, female AAS users were less educated, where it was concluded that the use of AAS in Poland is reality and it can become a serious health problem among adolescents and young adults.

A group of American authors McCabe, Brower, Brady, et al. (2007), in extensive studies have presented the results of a national survey that showed the use of anabolic steroids, frequency of usage and trends among U.S. college students. Data were collected through earlier surveys with more than 40,000 students from 119 faculties in the periods 1993, 1997, 1999, 2001. The results showed that in the period 1993-2001 has been a surge in the use of prohibited substances. In 2007 the German authors Wanjek, Rosendahl, Strauss, et al. (2007) have published the results of research conducted in 2004 in Thuringia (Germany) based on a survey of 16 elementary, 4 high, three sports and 4 vocational schools with the aim of determining the current situation and possible intervention when it comes to the use of illegal substances. From the total number of 2287 students even 15.1% used a banned drug in the previous year. Of these, 0.7% consumed anabolic androgenic steroids (AAS), 0.4% of growth hormones, stimulants, 2.4%, 13.2% cannabis, 0.1% diuretics, 2.2% cocaine / heroin and 0.3% erythropoetin. More over, 490 non sportsmen confirmed that in 5% more they use doping from recreational athletes (N = 1254) and almost three times more than the athletes (N = 497). All three groups of non-athletes, recreational athletes and sportsmen had poor results on the test of knowledge about doping in general, with an average below 60% in every case. The findings indicate the need to improve specific knowledge of doping among students and their attitude toward doping has to be changed. Similar researches were carried out in the last few years by Ukrainian authors who have even published a national study in partnership with WADA (Bondarev, Ajitskiy, Galchinsky, Labskir, & Druz, 2008; Bondarev, Galchinsky, Labskir, Druz, & Ajitskiy, 2009; Bondarev, & Sirenko, 2010).

Similar to research that dealt with the problem of knowledge and prevention of the use of illegal doping substances in the population of students of physical education and sport are made by Pavlovic and Pupiš (2013), Pavlovic & Idrizović (2013), and Khan et al. (2014).

The main problem, which is defined in this study are differences in perception, attitudes and knowledge among students of Physical Education and Sport, University of East Sarajevo (Bosnia and Herzegovina) and students of AMU AligarhUP (India) on the use and possible prevention doping in sport.

METOD

U istraživanju je učestvovalo ukupno 200 studenata, od čega 100 studenata Fakulteta fizičkog vaspitanja i sporta iz Istočnog Sarajeva (Bosna i Hercegovina) i 100 studenata Fakulteta fizičkog vaspitanja AMU Aligarh PU (Indija). Obuhvaćeni su studenti starosne dobi 18-26 godine. Od ukupnog uzorka (N=200), 170 ispitanika su osobe muškog pola, a 30 ispitanika su osobe ženskog pola. U skladu sa prirodom problema i ciljem istraživanja primjenjena je metoda sistemsko-neeksperimentalnog istraživanja. Kao način prikupljanja neophodnih informacija korišćen je anonimni anketni upitnik (Pavlović i Pupiš, 2013) sa 13 jasno definisanih pitanja koja su se odnosila na određena znanja i stavove o upotrebi dopinga sredstava u sportu (jedanaest pitanja zatvorenog tipa i dva pitanja su bila otvorenog tipa). Anketa sa studentima je sprovedena u školskoj 2012/13; 2013/14; 2014/15 godini, i svi studenti su dobrovoljno učestvovali u anketiranju. Rezultati su izraženi u nominalnim i procentualnim vrijednostima.

REZULTATI

Rezultati našeg istraživanja su predstavljeni Tabularno i grafički (zastupljenost dopinga u sportovima). Na osnovu uvida u Tabelu 1 može se zaključiti da su studenti bili jedinstveni u 3 pitanja (pitanje br. 1,2,11) u kojima su imali skoro identične numeričke procentualne vrijednosti. Oko 58% svih studenata nije upoznato sa listom popisa zabranjenih supstanci i lijekova, a 67% studenata nije nikada došlo u kontakt sa bilo kojom doping supstancom, što je i ohrabrujući pozitivan podatak. Međutim, samo 55% studenata poznaju skraćenicu WADA, što je pokazatelj da još uvijek nisu dovoljno upoznati sa ovom problematikom oko dopinga. U drugim pitanjima mišljenja su bila podijeljena ali ipak se nisu dijametralno razlikovala u odgovorima. Dobijeni rezultati su izuzetno značajni, jer se radi o istim populacijama sa različitim geografskih oblasti. Na bazi rezultata ankete dobijena je jednu relna slika o stavovima i znanjima studentske populacije o (zlo) upotrebama dopinga u sportu.

METHOD

The study included a total of 200 students, 100 of which were students from the Faculty of Physical Education and Sports in Eastern Sarajevo (Bosnia and Herzegovina) and 100 students from the Department of Physical Education from AMU Aligarh UP (India). The students that were included were of 18-26 years of age. Of the total sample (N=200), 170 of the participants were males, while 30 were females. In accordance with the nature of the problem and the aim of the research it was applied systematically-non-experimental research method. As a way of gathering the necessary information, an anonymous questionnaire (Pavlović & Pupiš, 2013) was used with 13 clearly defined questions which were related to the specific knowledge and attitudes about the use of doping substances in sports (eleven were closed type questions and two questions were open type). The survey was conducted with students in the academic year 2012/13; 2013/14, 2014/15, and all of the students voluntarily participated in the survey. Results are expressed in nominal and percentage values.

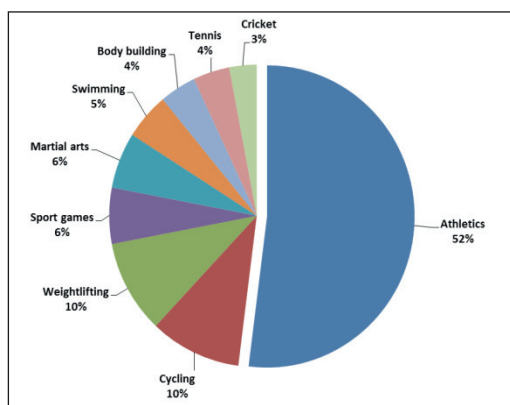
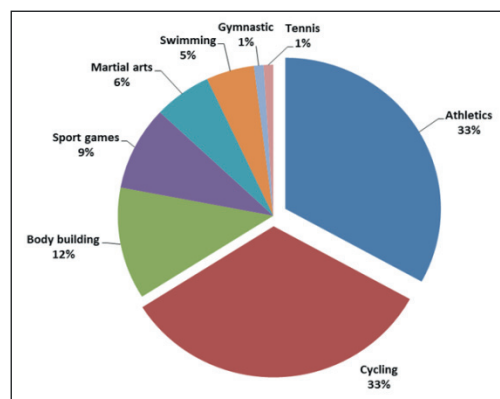
RESULTS

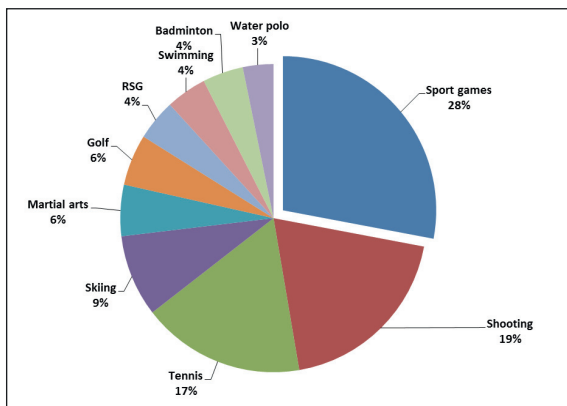
Results of this study are presented in tables and graphs (representation of doping in sports). Based on the findings in Table 1 it can be concluded that the students were the unique in three issues (Nos. 1,2,11) in which they had almost identical numerical percentage value. Around 58% of all students were not familiar with the list of the list of banned substances and drugs, and 67% of students had never come in contact with any doping substance, which is positive and encouraging data. However, only 55% of students know the acronym WADA, which is an indication that we still are not familiar with this issue about doping.

In other matters of opinion were divided but are not diametrically different in their responses. The results are great and extremely important, because it is about the same populations from different geographical areas. Based on the survey results obtained in a more realistic picture of the attitudes and knowledge of the student population on abuses of doping in sport.

Tabela 1 Odgovori u anketnom upitniku izraženi kroz nominalne i procentualne vrijednosti**Table 1.** Answers to the questionnaire expressed through nominal and percentage values

Pitanja? / Questions?	Fakultet fizičkog vaspitanja i sporta, Univerzitet u Istočnom sarajevu, Bosna i Hercegovina / Faculty Physical Education and Sport, University in East Sarajevo, Bosnia and Herzegovina		Katedra fizičkog vaspitanja, Ali- garh Muslimanski Univerzitet, Aligarh, P.U. Indija / Department of Physical Education in Aligarh Muslim University, Ali- garh, U.P. India	
	YES %	NO%	YES%	NO%
1 Da li ste ikada došli u kontakt sa doping supstancom? Have you ever come in contact with doping substances?	32	68	34	66
2 Da li znate popis zabranjenih supstanci i lijekova? Do you know the list of banned substances and drugs?	43	57	42	58
3 Da li ste ikada uzeli zabranjenu supstancu? Have you ever taken the banned substance?	13	87	9	91
4 Da li bi vi ikada uzeli doping za ostvarenje ličnih rezultata? Would you ever taken the drug to achieve personal results?	36	64	14	86
5 Mislite li da su neki od sadašnjih najboljih sportista uzimali doping? Do you think that some of the current top athletes were taking drug?	99	1	65	35
6 Jeste li upoznali nekoga a za koga ste znali da je uzimao doping? Have you met someone for whom you knew he was taking dope?	65	35	30	70
7 Mislite li da je ispravno da pozitivnog na doping imate u svojoj blizini? Do you think it is right to have someone positive to doping near you?	47	53	74	26
8 Mislite li da doping kontrola može 100% otkriti dopingovanog sportistu? Do you think that doping controls can detect 100% athletes who took dope?	52	48	35	65
9 Mislite li da postoji način da se prevare testovi na doping kontrolu? Do you think there is a way to deceive the doping control tests?	69	31	52	48
10 Postoje li neki od svjetskog anti-doping programa za podršku sportista u zemlji? Are there some of the world anti-doping program to support the athletes in the country?	44	56	34	64
11 Da li znate šta je WADA? Do you know what is WADA?	56	44	55	45
12 Za koji sport mislite da je najviše obilježio doping afere? Which sport do you think is the most marked by doping scandals?	Slika 1 / Graphs 1		Slika 2 / Graphs 2	
13 Za koji sport mislite da je najmanje zaražen drogama? Which sport do you think is the least marked by doping scandals?	Slika 3 / Graphs 3		Slika 4 / Graphs 4	

**Grafikon 1.** Sport koji je najmanje obilježio doping afere (Istočno Sarajevo-BIH)**Graphs 1.** Sports most marked by doping scandals (East Sarajevo-BIH)**Grafikon 2.** Sport koji je najmanje obilježio doping afere (AMU Aligarh-INDIA)**Graphs 2.** Sports most marked by doping scandals (AMU Aligarh-INDIA)



Grafikon 3. Sport koji je najmanje obilježio doping afere (Istočno Sarajevo-BIH)

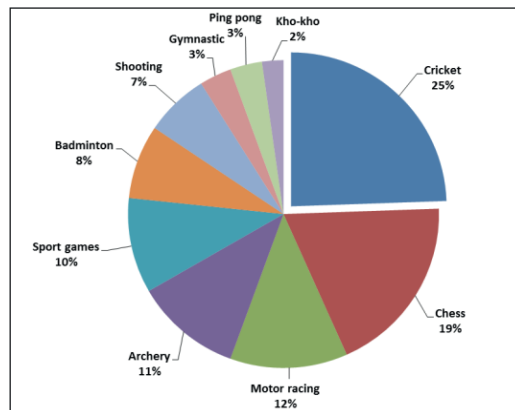
Graphs 3. Sports least marked by doping scandals (East Sarajevo-BIH)

Grafikoni 1-4 predstavljaju stavove ispitanika o sportovima koje su najviše obilježile doping afere i onih koje su najmanje obilježile doping afere. Može se reći da je očekivano, da je doping najviše obilježio atletiku kao sport sa najviše doping afera u oba subuzorka ispitanika. Čak više od polovine Indijskih studenata (52%) i 33% BiH studenata je upravo nju označilo kao sport sa najviše doping afera. Na drugom mjestu kandidovan je biciklizam sa preko 40% ispitanika (33% BiH and 10% Indijskih studenata). Na trećem mjestu po korišćenju dopinga u sportu identifikovani su Body building i dizanje tegova sa preko 20% ispitanika (12% BiH i 10% Indija). Na osnovu rezultata upravo su ovi sportovi vrlo često u žiži medijske javnosti, jer čine više od 1/2 sportova po mišljenju Indijskih studenata i 3/4 BiH studenata koji su obilježili neki doping skandali (Grafikon 1,2). Navedeni su još borilački sportovi, sportske igre, plivanje (ispod 6%).

Kao najmanje obilježeni sportovi doping aferma studenti BiH su naveli sportske igre (28%), a Indijski studenti Cricket (25%). Na drugom mjestu su streljaštvo (19% BiH) i šah (19% Indija), zatim tenis, moto trke, zimski sportovi, itd. (Grafikoni 3,4)

DISKUSIJA

Istraživanje koje je realizovano imalo je za cilj da se provjere znanja i utvrde stavovi i razlike studenata fizičkog vaspitanja i sporta Istočnog Sarajeva (BIH) i AMU Aligarh UP (Indija) o upotrebi zabranjenih supstanci (droga) u sportu. Istraživanje može da bude značajno zbog populacije koja je obuhvaćena istraživanjem, jer se radi o mladoj populaciji, aktuelnim sportistima, subjektima u oblasti sporta kojima je imperativ prvenstveno pobjeda, a u drugi plan se stavlja njihovo zdravlje i obrazovanje po tom pitanju.



Grafikon 4. Sport koji je najmanje obilježio doping afere (AMU Aligarh-INDIA)

Graphs 4. Sports least marked by doping scandals (AMU Aligarh-INDIA)

Graphs 1-4 represent the views of respondents on sports that are most marked doping scandal and those that are at least marked by doping scandals. It can be said that it was expected that the doping most celebrated athletics as a sport with the most doping scandals in both subsamples of respondents. Even more than half of the Indian students (52%) and 33% of BiH students just athletics marked as a sport with the most doping scandals. In the second place was nominated cycling with over 40% of respondents (33% of BiH and 10% of Indian students).

In third place on the use of doping in sport were identified bodybuilding and weight lifting with over 20% of respondents (12% BiH and 10% India). On the basis of just these sports are often the focuses of media to the public, because they are more 1/2 sports in the opinion of Indian students and 3/4 of BiH students who have marked some doping scandals (Graphs 1, 2). These are still martial arts, sports games and swimming (below 6%). The least marked sports doping scandals students BiH they stated sports games (28%), and Indian students cricket (25%). In the second place are shooting (19% of Bosnia and Herzegovina) and Chess (19% India), then tennis, motor racing, skiing, etc. (Graphs 3, 4)

DISCUSSION

The research was aimed to verify the knowledge and identify the attitudes and differences of students of Physical Education and sports from East Sarajevo (BIH) and AMU Aligarh U.P (India) on the use of banned substances (drugs) in the sport. This research can be significant due to the population covered by the survey, because it is about young population, current or future athletes, subjects in the field of sport to which primarily imperative is victory, and in the second plan their health and education on this issue.

Vrlo često profesionalni sportisti su uzori adolescenata i mladih odraslih populacije, koji često oponašaju svoje ponašanje, uključujući i zloupotrebe droga (Baron, et al., 2007). U odnosu na dobijene rezultate ovog istraživanja među studentima, koji možda još uvijek nisu alarmantni, jer npr. istraživanja Jesalisa i saradnika (Yesalis, Michael, & Bahrke 2000) pokazuju da je 3-12% adolescenata muškaraca i 1-2% adolescenata žena priznalo da koristi AAS u nekom trenutku tokom svog života. Poredeći rezultate aktuelnog istraživanja sa istraživanjima (Pupiš & Polgar, 2006) koja su se bavila istom problematikom na populaciji studenata fizičkog vaspitanja i sporta, može se zaključiti da su ti rezultati u suprotnosti sa rezultatima ovog istraživanja. Studenti su imali identičan stav po pitanju upotrebe dopinga od nekih sadašnjih vrhunskih sportista, navodeći da su svi oni bar jednom uzeli doping u toku karijere i tako ostvarili najbolji rezultat.

Značaj problema dopinga je baziran na više činjenica, a prije svega na štetnim efektima na pojedine organske sisteme koje izaziva korišćenje doping supstanci (Mougi-os, 2001; Parssinen & Sepapala, 2002; Payne, Kotwinski & Montgomery, 2004; Hartgens & Kuipers, 2004; Dhar, Stout, Link, Homoud, Weinstock, & Estes 2005., Deligiannis, Björnstad, Carre, Heidbüchel, Kouidi, & Panhuyzen-Goedkoop, 2006; Hasson, Salem & Sayed, 2009).

Prema ovom istraživanju, samo 32% studenata Istočnog Sarajeva i 34% studenata AMU Aligarh je došlo u direktan kontakt sa zabranjenom supstancom, a skoro u prosjeku 68% studenta nije nikada bilo u kontaktu sa bilo kojom zabranjenom doping supstancom (Tabela 1).

Za razliku od istraživanja Melija i saradnika (Melia, et al., 1996), te Rahona i saradnika (Rachon, et al., 2006), čiji su rezultati bili alarmantni i neophodne su bile hitne preventivne mjere, naši ispitanici su još u granicama tolerancije, odnosno još uvijek su pasivni kada je u pitanju upotreba zabranjenih supstanci, što je i dobro.

U novije vrijeme primjetan je porast broja neprofesionalnih sportista i mlađe populacije koji koriste doping (Michalák, & Kyselovičová, 2001; Erhnborg & Rosen, 2009). Dodatnu težinu daje i podatak o uzrastu korisnika dopinga koji kaže da je među mladim sportistima uzrasta od 10-15 godina procenat korisnika dopinga 0,7% (Wroble, Gray & Rodrigo, 2002) i da se prvi kontakt sa AAC obično javlja između 12 i 13 godine (Kokkevi, Fotiou, Chileva, Nociar & Miller, 2008) što je vrlo alarmantno. Znatna većina studenata ima negativan stav prema doping, i samim tim pokazuje da je doping neželjena supstanca koju ne treba konzumirati. Takođe, treba uzeti u obzir i podatak da njih skoro 57% ne zna popis zabranjenih supstanci i lijekova, što vjerovatno predstavlja

Very often, professional athletes are role models for adolescents and young adults, who often imitate their behavior, including drug abuse (Baron, et al., 2007). Compared to the results of this research among high school students, who may not yet be alarming, because, for example, the research of Yesalis and associates (Yesalis, Michael, & Bahrke 2000) show that 3-12% of adolescents men and 1-2% of adolescent women admitted they use AAS at some point during their lives. Comparing the results of this research with the research of (Pupiš & Polgar, 2006) which dealt with the same problem on the population of students of physical education and sport, it can be concluded that these results are in contrast with the results of this research. Students had the same attitude on the issue of doping from some of the current top athletes, stating that they all at least once took doping during their career and so achieved the best result.

The importance of the problem of doping is based on several facts, and above all on the harmful effects on individual organ systems caused by the use of doping substances (Mougi-os, 2001; Pärssinen & Sepapala, 2002; Payne, Kotwinski & Montgomery, 2004; Hartgens & Kuipers, 2004; Dhar, Stout, Link, Homoud, Weinstock, & Estes 2005, Deligiannis, Björnstad, Carre, Heidbüchel, Kouidi, & Panhuyzen-Goedkoop, 2006; Hasson, Salem & Sayed, 2009). According to this survey, only 32% East Sarajevo and 34% AMU Aligarh students came in direct contact with a prohibited substance, and almost 68% of the students had never been in contact with any of the prohibited doping substance (Table 1).

Unlike research of Melija and associates (Melia, et al., 1996), and Rahon and associates (Rachoni, et al., 2006), whose results were alarming and required urgent preventive measures, our respondents are still within the limits of tolerance, or they are still passive when it comes to the use of prohibited substances, which is good.

In recent years there has been a rise in the number of non-professional athletes and younger population who use doping (Michalák, & Kyselovičová, 2001; Erhnborg & Rosen, 2009). The extra concern gives the data on the age of the users of doping, which says that among young athletes aged 10-15 years, the percentage of users of doping is 0.7% (Wroble, Gray & Rodrigo, 2002) and that the first contact with AAC usually occurs between 12 and 13 years (Kokko, Fotiou, Chile Nociar & Miller, 2008) which is very alarming.

A substantial majority of students have a negative attitude towards doping, and therefore shows that the doping is unwanted substance that should not be consumed. It should also be taken into account the fact that nearly 57% of them

i problem jer je edukacija o dopingu nedovoljna, malo zastupljena na fakultetima i školama.

Neobavještenost o štetnom uticaju dopinga se ne dešava samo kod nas i može se reći da i ne iznenađuje. Postoje podaci koji pokazuju da je nekada i informisanost ljekara opšte prakse koji vrše testiranja sportista na nedovoljnom nivou, odnosno nisu upoznati sa zabranjenim proizvodima kao i negativnim efektima koje korišćenje dopinga proizvodi (Laure, et al., 2003). Iako postoje razlike između studenata Istočnog Sarajeva i AMU Aligarh po pitanju uzimanja zabranjenih supstanci, visok postotak (više od 87% BIH studenata a 91% AMU Aligarh studenata) ispitanika ovog istraživanja nikada nije koristio zabranjene supstance, samo njih oko 10% je uzelo neku zabranjenu supstancu. Može se konstatovati da je ovaj podatak ohrabrujući, a procent korišćenja dopinga zanemarljiv u poređenju sa sličnim istraživanjima (Rachoń, et al., 2006; Kokkevi, et al., 2008; Ernhborg & Rosen, 2009). Obzirom da se radi o studentima fizičkog vaspitanja, podatak od 10% koji su konzumirali doping je pomalo i očekivan, ako se uzme u obzir okruženje sredine, socijalno sazrijevanje, želja za dokazivanjem u sredini, poboljšanje fizičkog izgleda i poboljšanje sportskih performansi (Kindlundh, et al., 1998). Međutim, problem predstavlja i onih 10% koji su već konzumirali neku nedozvoljenu supstancu, vjerovatno (ne) svjesni eventualnih posljedica usljed nedovoljne informisanosti o štetnom djelovanju dopinga, (Parssinen & Sepapala, 2002; Payne, et al., 2004; Hartgens & Kuipers, 2004; Dhar, et al., 2006; Hasson, et al., 2009). Razlika između BIH i Indijskih studenata je evidentna i po pitanju korišćenja doping supstanci. Više od polovine ispitanih BIH studenata, (64%) je imalo negativan stav o eventualnom korišćenju zabranjenih supstanci za ostvarenje ličnih rezultata a njih 36% je podržavalo upotrebu zabranjenih supstanci, za razliku od Indijaca gdje je čak 86% imalo negativan stav a samo 14% je podržavalo korišćenje dopinga. Vrlo je važno da većina ispitanika studenata ima negativan stav po ovom pitanju i ne podržava uzimanje bilo kojih zabranjenih supstanci. Ovakav stav je u suprotnosti sa stavovima italijanskih srednjoškolaca koji su pokazali namjeru znatno višeg korišćenja dopinga i jačim uvjerenjem da će ih drugi podržati (Lucidi, Zelli, Mallia, Grano, Russo, & Violani, 2008).

Problem je vrlo često u samoj ličnosti sportiste koji je nezadovoljan učinkom i napredovanjem, jako izražena želja za postizanje vrhunskih rezultata, što je praćeno ogromnim zaradama, popularnošću i ugledom, vjerovanjem da i drugi koriste iste ili slične supstance kao i nedostatkom znanja o neželjenim efektima upotrebe dopinga (Petróczy, 2007). Interesantan je podatak i stav svih ispitanika

do not know the list of prohibited substances and drugs, which probably represents a problem because education on doping is insufficient, and it is poorly represented in faculty and school. Lack of information on the harmful effects of doping does not just happen to us and we can say that this is not surprising. There are data that show that sometimes the awareness of doctors, general practitioners who perform testing of athletes is at an insufficient level, regarding that they are not familiar with the restricted products as well as the negative effects of the use of doping products (Laure, et al., 2003). Although there are differences between students of East Sarajevo and AMU Aligarh in terms of taking banned substances, a high percentage (over 89%) of survey respondents had never used banned substances, only 10.63% of them had taken some banned substance. It can be noted that this data is encouraging, and the percentage of doping is negligible in comparison with similar studies (Rachoni, et al., 2006; Kokko et al., 2008; Ernhborg & Rosen, 2009). Given that this is students Physical education and Sports, the figure of 10% who consumed doping is somewhat expected, if we take into account the environment protection, social maturation, the desire to prove themselves in the social environment, the improvement of physical appearance and improvement of sport performances (Kindlundh, et al., 1998). However, the problem is the 10% of those who have already consumed an illicit substance, probably (not) aware of the potential consequences due to lack of information about the harmful effects of doping, (Pärssinen & Sepapala, 2002; Payne, et al., 2004; Hartgens & Kuipers, 2004; Dhar, et al., 2006; Hasson et al., 2009).

The difference between BIH and Indian students is evident also in terms of the use of doping substances. More than half of the respondent students BIH (64%) had a negative attitude about the possible use of banned substances to achieve personal results and 36% of them supported the use of banned substances unlike the Indian students, where 86% had a negative attitude and only 14% supported the use of drugs. It is very important that the majority of students have a negative attitude on this issue and does not support taking any banned substances. This attitude is in contrast to the views of Italian students who have demonstrated significantly higher intention to use doping and a stronger belief that others will support them (Lucidi, Zell, Mallia, Grano, Russo, & Violani, 2008).

The problem is very often in the personality of an athlete who is dissatisfied with the performance and progress, strongly expressed desire to achieve top results, followed by huge salaries, popularity and reputation, the belief that others are using the same or similar substances as well as the lack of knowledge about the unwanted effects of dop-

obuhvaćen ovim istraživanjem koji smatraju da su neki od sadašnjih najboljih sportista uzimali neku vrstu zabranjenih supstanci. Skoro svi studenti Istočnog Sarajeva (99%) su mišljenja da su neki od dosadašnjih najboljih sportista uzimali doping, dok je 65% Indijskih studenata podržalo ovu konstataciju. To potvrđuje pretpostavku da je negativna percepcija upotrebe dopinga u vrhunskom i profesionalnom sportu u ovoj mladoj populaciji, gdje je znatna većina angažovana u nekom sportu. Skoro identične rezultate su dobili i drugi autori (Pupiš, & Polgar, 2006; Bondarev & Sirenko, 2010; Pavlović & Idrizović, 2013). Oko poznavanja nekoga da je uzimao doping, mišljenja studenata su bila podijeljena. Čak 65% studenata Istočnog Sarajeva i 30% studenata AMU Aligarh je upoznao nekoga ko je uzimao i koristio doping, što znači da su oni na određeni način upoznati sa djelovanjem ovih supstanci preko najčešće svojih poznanika ili prijatelja. Nešto drugačiji stav su imali i o tome da li je ispravno da pozitivnog na neku vrstu dopinga imaju u svojoj blizini. Od ukupnog broja studenata Istočnog Sarajeva, njih 53% je protiv takvih osoba da se nađu u njihovoj blizini a 74% studenata AMU Aligarh to odobrava, čime pokazuju određeni stepen tolerancije na doping u sportu. Jedan možda zanimljiv rezultat je dobijen u pitanju oko pouzdanosti testiranja na doping i moguće prevare. U odgovoru na ovo pitanje 48% ispitanika Istočnog Sarajeva i 65% AMU studenata, smatra da doping kontrole ne mogu uvijek otkriti dopingovanog sportistu, a njih 41% smatra da je to moguće.

Više od polovine svih ispitanih studenata (preko 60%) smatra da postoje načini da se „prevare” testovi za doping kontrolu. Ovaj procenat upućuje na zaključak da još uvijek među učenicima postoji dilema oko pouzdanosti antidoping kontrola i njihovog provođenja.

Na pitanje da li postoji u zemlji neki od antidoping programa koji bi pomagali sportistima, veća polovina uzorka Istočnog Sarajeva (56%) i 64% studenata AMU nije upoznata da u njihovoj zemlji postoji neki od svjetskih anti-doping programa za podršku sportistima, u smislu kontinuirane edukacije, seminara, konferencija itd, što je u suprotnosti sa istraživanjem (Pupiš & Polgar, 2006), a njih 34-44% je upoznato sa tim agencijama na nivou države. Ovaj podatak samo pokazuje da je informisanost ove populacije nedovoljna i da je neophodno sprovesti dodatnu edukaciju po ovom pitanju. U pogledu sporta koji je najviše obilježio doping afere (Grafikon 1) na prvom mjestu studenti su kandidovali atletiku i biciklizam. Dobijeni rezultati se podudaraju sa rezultatima slovačkih autora (Pupiš & Polgar, 2006) koji su takođe kandidovali atletiku i biciklizam, sa znatno većim procentom, kao vodeće u doping aferama. Generalno posmatrano, ovdje se

ing (Petróczi, 2007). An interesting fact is the attitude of all respondents included in this research who believe that some of the current top athletes were taking some sort of banned substances. Almost all the students of East Sarajevo (99%) are of the opinion that some of the current best athletes taking doping, while 65% the Indian students supported this statement. This confirms the assumption that is the negative perception of doping in elite and professional sport in this young population, where the vast majority is engaged in some sport. Nearly identical results were obtained by other authors (Pupiš, & Polgar, 2006; Bondarev & Sirenko, 2010; Pavlović & Idrizović, 2013). About knowing that someone was taking doping, thought of the students were divided. Even 65% students of East Sarajevo and 30% students of AMU Aligarh met someone who was taking and using doping, which means that they are in some way familiar with the effects of these substances usually through their friends or acquaintances. Something different attitude they had about whether it is right to have someone who is positive to doping in their vicinity. Of the total number of students East Sarajevo, 53% is against such a person to be found in their vicinity and 74% students AMU Aligarh approve this, which shows a certain degree of tolerance for doping in sport. One result that might be interesting was obtained in terms of reliability of testing on doping and possible fraud. In answering this question, 48% of respondents of East Sarajevo and 65% AMU students, believe that doping controls cannot always detect athlete who used doping and 41% of them considered that this is possible. More than half all students (more 60%) of the respondents believe that there are ways to fraud tests for doping control. This percentage indicates that there is still among the students a dilemma about the reliability of the anti-doping controls and their implementation. On the question of whether there is in the country some of the anti-doping program to assist athletes, the higher half of the sample East Sarajevo (56%) and 64% AMU students, were not aware that in their country there is some of the world anti-doping program to support the athletes, in terms of continuing education, seminars, conferences, etc., which is in contrast with previous research (Pupiš & Polgar, 2006), and 34-44% of them are familiar with these agencies at the state level.

This data only shows that the knowledge of this population is insufficient and it is necessary to conduct further education in this matter. In terms of sport, which is most marked by doping scandals (Figure 1) in the first place, students nominated athletics and cycling. The obtained results coincide with the results of Slovak authors (Pupiš & Polgar, 2006), which also nominated athletics and cycling, with a significantly higher percentage, as leaders in dop-

radi o individualnim sportovima, gdje pretpostavka da se biciklizam i atletika identifikuju uglavnom sa stalnom medijskom pažnjom i sportistima iz ove grupe koji su najčešće i dio doping kontrole. S druge strane, postoji moć sportskih udruženja koja generalno percipiraju kao sportovi u kojima se doping prečesto koristi (Wilson, 2012). Kao sportove najmanje „zaražene“ drogama najviše odgovora ispitanih učenika odnosilo se na sportske igre, kriket, streljaštvo, tenis čak i ako anketno pitanje nije bilo usmjereno specifično za sport, grupu sportova (Grafikon 2). U istraživanju Pupiš i Polgar (2006) sportske igre, sa 66%, su takođe označene kao sport koji je najmanje zaražen drogama. Koliko su rezultati ove sprovedene ankete na populaciji studenata Fizičkog vaspitanja i sporta, i pored nekih međusobnih razlika u odgovorima, ohrabrujući potvrđuju i dobijeni rezultati istraživanja, naročito u poređenju sa sličnim, koja su takođe za problem imala upotrebu doping sredstava u sportu.

Da bi se ovo razmišljanje studenata održalo u pozitivnom trendu, vrlo je važna borba protiv dopinga, svim mogućim sredstvima. Treba se zalagati za obrazovanje od početka organizovanja sportova i svih sportskih sekcija u školama. Zbog toga kod mladih, naročito školskog uzrasta, treba što više razvijati svijest o štetnim uticajima dopinga na organizam čovjeka, limitima organizma i granicama izdržljivosti, preko kojih se ne smije ići. Trenutna strategija za rješavanje povećanje korišćenja dopinga od strane adolescenata je višenamjenska i preventivno uključuje obrazovanje i prevenciju, zabrane i antidoping testiranja. Ukoliko doping ne prestane da bude mračna strana sporta, onda će sport u svakom pogledu izgubiti u potpunosti svaki smisao, mada dobrim dijelom već i jeste, i postaće tek samo grana proizvodnje, biznis, tržište farmaceutskih kompanija i ništa više, a aktivni sudionici upotrebe dopinga će postati njihove žrtve, bez obzira o kojoj populaciji je riječ.

ZAKLJUČAK

Dobijeni rezultati ovog istraživanja mogu se prihvatiti kao globalni pokazatelj informisanosti, percepcije, znanja i stavova studenata Fizičkog vaspitanja i sporta o sve većem problemu današnjeg modernog sporta. Oni mogu biti relevantni za širu društvenu zajednicu BiH i Indije. Opšta informisanost studenata oba subuzorka po pitanju znanja o doping u je vrlo skromna, stavovi i znanja o nekim pitanjima se diametralno razlikuju (Tabela 1). Mogući uzrok pojedinih razlika subuzorka studenata može biti nedovoljna informisanost studenata u sredinama i fakultetima iz kojih dolaze, pa bi se trebalo više edukovati o ovom problemu. Međutim i pored određenih razlika u

ing scandals. Generally speaking, here is about individual sports, where the assumption is that cycling and athletics are identified mainly with the constant media attention and athletes in this group who are most often part of doping control. On the other hand, there is a certain power of sports associations which generally perceive as sports in which doping is too often used (Wilson, 2012). As sports least “infected”, most responses of the students related to sports games, cricket, shooting, tennis, even if the poll question was not directed specifically for sports, group of sports (Graphs 2). In the study of Pupiš and Polgar (2006) the sports games, with 66%, are also marked as a sport that is least infected with drugs. How much are the results of the survey on the population of students Physical education and sports, despite the some of differences in the answers, encouraging also confirm the obtained results of research, especially when compared to similar, which also had for the problem the use of doping substances in sport.

In order to maintain this mindset of students in a positive trend, it is very important to fight against doping, by all possible means. It is necessary to advocate for education since the beginning of organizing sports and all sports sections in schools. Therefore, in young people, especially schoolchildren, should develop as much as possible awareness of the harmful effects of doping on the human organism, the organism limits and the limits of endurance, through which one must not go. Current strategy to address the increasing use of doping by adolescents is multipurposed and primarily involves education and prevention, prohibition and anti-doping testing. If doping does not cease to be a dark side of sport, then sport in every respect will completely lose all meaning, although largely already is, and will become merely a branch of production, business, the pharmaceutical companies market and nothing more, and active participants of doping will become their victims, regardless of the population in question

CONCLUSION

The results of this study can be accepted as a global indicator of awareness, perception, knowledge and attitudes of students of Physical education and Sport about the problem of today's modern sports. They may be relevant to the wider community BiH and India. General information of students both subsamples in terms of knowledge about doping is very modest and attitudes and knowledge about some of the issues are diametrically opposed (Table 1). Possible cause of individual differences subsample of students may be insufficient information of students in colleges and communities from which they come, we should be further educated about the problem. However,

odgovorima među studentima BIH i Indije, uočene su i neke sličnosti. Kao što se očekivalo, svi studenti smatraju da je doping najviše obilježio atletiku, biciklizam, što je doprinijelo da su ovi sportovi vrlo često u žiži medijske javnosti. Navedeni su još borilački sportovi, bodi bilding, dizanje tegova, plivanje i zimski sportovi. Kao najmanje obilježeni sportovi doping aferama su navedeni sportske igre, kriket, streljaštvo, tenis, vaterpolo, itd. Na osnovu dobijenih rezultata, naročito onih 33% koji su došli u kontakt, 19-13% koji su već uzeli neku zabranjenu supstancu i 14-36% koji bi uzeli zabranjenu supstancu za lične rezultate je 'upozorenje'. Dobijeni rezultati studenata po pitanju stavova o upotrebi dopinga, znanja i informisanosti o negativnim efektima dopinga opravdava dalja slična istraživanja.

Izjava autora

Autori pridonijeli jednako.

Konflikt interesa

Mi izjavljujemo da nemamo konflikt interesa.

despite certain differences in responses among students BiH and India, have been identified and some similarities. As expected, all students believe that doping most marked the athletics and cycling, which contributed that these sports are often in the focus of media public. Stated are also martial arts, bodybuilding, weightlifting, swimming and winter sports. The least marked sports by doping scandals stated are sports games, cricket, shooting, tennis, tennis, water polo, etc. Based on the results, particularly those 33% who have come into contact with, 9-13% of which have already taken a banned substance and 14-36%, which would take a prohibited substance for personal results is "warning". The obtained results of students in terms of attitudes about the use of doping, knowledge and awareness about the negative effects of doping justify further similar studies.

Authorship statement

The authors have contributed equally.

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