

Knowledge levels and preference reasons regarding the doping of U23 Turkish National Team athletes

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Summary. The aim of this study was to determine the knowledge level and preference reasons of U23 Turkish National Team athletes about doping. The sample of the study was created by 100 U23 Turkish National Team athletes from different branches. 5-points likert-type scale and a questionnaire consisting of 29 questions was applied to the athletes. In the analysis of the obtained data, descriptive statistics (percentage and frequency) and chi-square test were used. As a result, it was determined that 47% of athletes had enough knowledge about doping, and 81% of them knew that doping had great damages on health, but they were indecisive about the usage of doping. Although athletes tend to use doping, this result may be due to the risk of being caught by the World Anti-Doping Agency.

Key words: doping knowledge, doping preference, health, world Anti-Doping Agency

Introduction

People's attitudes towards sports or tendency to participate it vary. This variation is shaped by the expectations of individuals from sports. Sometimes the reason for doing sports may be seen as a tool for education or health, and sometimes as a reason for gaining status in society. Moreover, the reasons for making sports differ from person to person may be related to the fact that sport is multifaceted (1). Recently, sports has been used as an effective tool in the development of relations between countries through national or international sports organizations and the popularity of sports. The rapid increase in the importance of sport in terms of general, cultural and prestige is considered to be the primary reason for the uplift of the contemporary world (2). Since the earliest times in history, the goal of the sport was to choose the faster and the stronger (3). For this reason, athletes have tried to find ways to achieve success for centuries, to increase

sports performance, and to win victories (4) and they have concluded that the desired success has only been achieved by external factors (using doping). In this way, the sportive performance obtained by artificial ways will easily give the athlete the success and victory he/she desires (5). The usage of prohibited substances (Anabolic Agents, Peptide Hormones, Beta-2 Agonists, Hormone and Metabolic Modulators, Diuretics and Masking Agents, Stimulants, Narcotics, Cannabinoids, and Glucocorticoids) and / or methods (Manipulation of Blood and Blood Components, Chemical and Physical Manipulation, and Gene and Cell Doping) for unfairly increase the sportive performance of the athlete is considered to be a crime by the World Anti-Doping Agency (6,7). According to the law of the WADA, established in 1999 by the International Olympic Committee the substances must have the potential to improve the performance, to threat human health or to have the potential to do so in order to be considered as a crime. If the athlete uses two of

these three items on the grounds that it is against the spirit of the sport, the substances used are considered as doping (8). The use of substances to increase sportive performance and artificial power gain are not new. Doping is an old phenomenon that threatens human health and sports ethics as much as the physical struggle. As a result of the usage of substances, not only physical and psychological structures of the athlete be damaged, but also faces the fact that the results can extend to death. In addition to the understanding of champion athletes, it also causes corruption of moral values (5). As a result, modern sports can be said to occur with the completion of the process of transition from amateur to professional (9). When contests are examined in Ancient Greeks, it is stated that the prizes given to athletes represent a religious meaning more than a material gain. The prizes given to the winner are a crown made of an olive branch and the holiness given by the championship. For this reason, sports are mystical and religious values in which physical power competes in ancient Greeks. The only element motivating athletes at that time was spiritual values rather than material values (10,11). Nowadays, athletes who have achieved success in the Olympics are rewarded with gold medals instead of an olive branch, and getting good living conditions to motivates the athlete to win continuously (12). It is stated that the adoption of this understanding may be caused by the intertwining of sports and commercial relations and as a result, negativity is experienced in the sense of sports ethics and Fairplay. The most important reasons for the behaviours against sports ethics are the financial incentives and good conditions of the athletes. Moreover, when sports are in an economic process, corruption is experienced more (13). Doping is not only interested in athletes but also by researchers and politicians. This interest is not only limited to sports ethics and concerns about athletes' health, which is emphasized by WADA, but it is also associated with the spread of athletes to lower levels (8). Most of the studies in the literature showed that the age of using doping as low as the high school-level student-athletes, force training period used as a non-prescription (14), even before the age of 10 (15) and/or at some point of their lives, they obtained the knowledge that they used Anabolic androgen steroid (16,17). Doping has become a grow-

ing problem for all countries in the 20th century (9). Increases in the use of unconscious doping in many sports branches are arousing interest. Due to the use of the substances, the sport has moved away from its real purpose and damages the ethics of sports and the amateur spirit. Furthermore, to reveal the level of knowledge of young athletes about doping substances and to determine the reasons for their preference will contribute to the field of sports science. In this context, the aim of this study was to determine the knowledge level and preference reasons for U23 Turkish National Team athletes regarding doping.

Material and Method

Participants

Convenience Sampling Method was used in research. The research group consists of 100 (70 male and 30 female) athletes in the range of 18-23 years, from U23 Turkish National Teams of football, volleyball, karate, wrestling, and athletics.

Collection of Data

A questionnaire consisted of two phases, the validity and reliability ($\alpha = 0.797$) were tested by Eröz (2007) (18). The first part of the questionnaire consists of questions about the gender of the participants and the second part about the doping knowledge levels and the reasons for their preference. The questionnaire applied to the participants for this study consists of a total of 19 questions 8 of which about the reasons for the preference of doping in sport and 11 of which about to determine the level of knowledge about doping and doping in sport (prohibited substance)".

Statistical Analysis

In addition to the descriptive statistics of the participants, the SPSS package program was used to compare the answers to the questionnaires according to gender. Chi-square test was used to investigate the differences of each dependent variable according to the independent variables. Significance level was accepted as $p < .05$.

Table 1. Analysis of the results of the athletes about the doping knowledge levels

Variables		Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	χ^2	p
I have enough knowledge about doping.								
Man	%	10	11	16	27	6	3,136	,535
Woman	%	2	5	9	9	5		
Total	%	12	16	25	36	11		
Doping has great harm to health.								
Man	%	1	4	10	26	29	1,188	,880
Woman	%	0	1	3	13	13		
Total	%	1	5	13	39	42		
Most stimulants (caffeine, cocaine, etc.) are used in sports.								
Man	%	4	3	34	15	14	7,063	,133
Woman	%	1	2	14	12	1		
Total	%	5	5	48	27	15		
Mostly narcotic analgesics (morphine, etc.) are used in sports.								
Man	%	7	4	41	10	8	8,076	,089
Woman	%	3	7	14	5	1		
Total	%	10	11	55	15	9		
Mostly Anabolic-Androgenic steroids are used in sports.								
Man	%	3	6	38	16	7	5,171	,270
Woman	%	1	5	20	2	2		
Total	%	4	11	58	18	9		
Mostly Beta Blockers are used in sports.								
Man	%	3	4	46	10	7	11,453	,022*
Woman	%	2	8	16	4	0		
Total	%	5	12	62	14	7		
Peptide Hormones (Erythropoietin, Growth Hormone, etc.) are mostly used in sports.								
Man	%	4	6	36	18	6	5,116	,276
Woman	%	2	5	19	3	1		
Total	%	6	11	55	21	7		
Mostly Masking Agents are used in sports.								
Man	%	8	8	39	12	3	1,459	,834
Woman	%	3	4	18	5	0		
Total	%	11	12	57	17	3		
Mostly Cannabinoids (marijuana, cannabis) are used in sports.								
Man	%	9	9	34	13	5	2,502	,644
Woman	%	5	4	16	5	0		
Total	%	14	13	50	18	5		
Mostly corticosteroids are used in sports.								
Man	%	8	9	42	9	2	1,295	,862
Woman	%	3	3	19	5	0		
Total	%	11	12	61	14	2		
Anti-estrogenic activity agents are mostly used in sports.								
Man	%	7	11	39	6	7	,969	,914
Woman	%	3	3	17	4	3		
Total	%	10	14	56	10	10		

*p<0,05

Result

A total of 100 athletes from different sports branches participated in the study. The chi-square test was used to compare the answers to the questionnaires according to gender.

When the answers given by the athletes about doping information levels are examined, while the answers of the question “*most beta blockers are used in sport*” varies according to gender, the answers of other questions were determined not to differ statistically. In addition, although 47% of athletes have sufficient

knowledge about doping and 81% know that doping has great harm to health when the responses are examined, they have been observed to be indecisive about the use of doping drugs. It is thought that this indecision is because of being forbidden in international sports organizations and that they will be penalized as a result of a positive sample but because they know that they can increase the performance with the use of doping at the maximum level.

According to the answers of the athletes in the study, while it was determined that the athletes’ Doping preferences do not differ according to gender, it

Table 2. The analysis of the results about the athletes’ preference reasons for doping

Variables		Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	χ^2	p
A successful athlete wants to use doping to achieve higher performance.								
Man	%	11	9	15	18	17	5,840	,211
Woman	%	4	7	6	11	2		
Total	%	15	16	21	29	19		
A successful athlete wants to use doping to eliminate his/her fear of losing.								
Man	%	10	11	13	25	11	1,471	,832
Woman	%	5	7	6	9	3		
Total	%	15	18	19	34	14		
A successful athlete wants to use doping to calm his excitement.								
Man	%	21	13	19	11	6	4,845	,304
Woman	%	6	6	7	10	1		
Total	%	27	19	26	21	7		
A successful athlete wants to use doping because of his desire to win.								
Man	%	14	4	17	18	17	7,676	,104
Woman	%	5	6	4	11	4		
Total	%	19	10	21	29	21		
A successful athlete wants to use doping due to financial support.								
Man	%	16	11	12	23	8	1,339	,855
Woman	%	4	6	6	10	4		
Total	%	20	17	18	33	12		
A successful athlete wants to use doping to provide a social status and maintain this status.								
Man	%	14	7	24	15	10	5,439	,245
Woman	%	6	4	5	12	3		
Total	%	20	11	29	27	13		
A successful athlete wants to use doping to achieve a good standard of living.								
Man	%	17	15	21	11	6	1,999	,736
Woman	%	6	8	8	7	1		
Total	%	23	23	29	18	7		
A successful athlete wants to use doping to get club support.								
Man	%	17	10	16	20	7	5,536	,237
Woman	%	9	8	2	7	4		
Total	%	26	18	18	27	11		

was determined that athletes may use doping substances in order to achieve higher performance, to eliminate the fear of losing, due to his desire to win, to provide financial support and to provide social status and maintain this status.

Discussion

According to the main findings of this study, although 47% of athletes have enough knowledge about doping and 81% of them know that doping has great harm to health when the answers were examined, it was observed that the athletes related to the use of doping substances were generally indecisive. In their research on bodybuilding athletes, Yalnız ve Gündüz (2004) reported that athletes were using doping substances even though they know it had harmful effects (19). In another study, Eröz (2007) examined whether national athletes had enough knowledge about doping, these results were reported "strongly agree with 11.7%", "strongly disagree with a rate of 72.5%" and "neither agree or disagree 12.5%" (17). Ağırbaş (2002), the senior national team athletics in a study carried out to determine the level of knowledge of on doping "Do you know what is doping?" %75 of the answers was "no", 25% of the answer was "yes" (20). Şirin (2001), in his study which aimed to determine the level of knowledge about doping, which was applied to individual and team athletes, it was found that the athletes who said their information about doping sufficient lower than those who stated that their knowledge about doping was insufficient (21). In terms of whether the side effects of doping are known, this result was obtained, "I have less information" with the rate of 18.3% and "I have information" with the rate of 15.4%. These results showed that athletes are not knowledgeable about doping and have only dogmatic information (information heard from others).

Çetinkaya et al. (2007) in his study found that the knowledge and attitudes about doping in the students of the High school of Physical Education and Sports, while 1.4% of the students stated that they received training on doping, others 98.6% of them did not receive any education in this subject (22). Dalli et al. (2004) asked Do you have enough information about

the performance-enhancing drug(doping)?', the answers were 62.5% partially, 11.7% "no" and 25.8% "yes" (23). Again, Öztürk et al. (2012) reported that most of the handball players do not have enough information about doping (24). In this respect, the results of the studies in the literature support our research results.

When the answers given to the questions about the doping knowledge and preference reasons of the athletes who participated in the research were examined, it was determined that they may use doping to gain the maximum performance, to have the means of victory. Eröz (2007), was stated that the participants' sports at the national level and from different sports branches (athletes, wrestling, judo and weightlifting); the question "A successful athlete wants to use doping due to his/her desire to win" answered back as "strongly agree with a total of 55.0%", "strongly disagree with 17.5%", and "13.3% of neither agree nor disagree". The answers about "A successful athlete wants to use doping to calm his excitement." was found "with the 15.8% of the strongly agree», "strongly disagree with 63.3%» "neither agree or disagree 8.3%», they have expressed their opinion". Successful athletes want to use doping to provide a social status and maintain this status question, answered like "39.2% of the rate strongly agree", "15% of the rate strongly disagree", and "13.3% of the rate neither agree or disagree". "A successful athlete wants to use doping to achieve a good standard of living" question answered by strongly agree 67.5%, by strongly disagree 16.7%, and neither agree or disagree 7.5% (18).

Özel (1995) state that 65% of the sportsman using doping for extreme desire to win and 47.5% of them using doping because of increasing financial support in his work named researching of weightlifter's doping using methods and widespread (2). According to Michigan state university's work on university sportsman in 1984, come up that in the last 14 month period %8 of the 2039 participants used amphetamine. This has been reported that while 61% of these participants using this medicine for personal or social causes, 37% of them using to improve performance (25).

Kim and Kim (2017) reported that approximately 50% of Korean national adolescent and adult athletes knew about doping substances for their respective sports in named Korean national athletes' knowledge,

practices, and attitudes of doping: a cross-sectional study. Moreover, they found that there is a low level of doping knowledge among athletes (26). Moran et al. (2008) reported that 62.6% of athletes of various nationalities said that they had received information on banned substances in their sport, and 48.8% felt confident with their knowledge (27). Khidir and Mahmoud (2018), found that Sudanese athletes and sports players do not have culture of doping in sports, like in Europe or even those in western Africa (28).

Conclusion

As a result of the research, it was found that the athletes did not have sufficient knowledge level about doping and although they knew doping had great harm to health, they were not clear about the usage of the doping. It is thought that unsteadiness of the preference reasons for doping of the athletes is related to the desire to maximize performance, desire to win excess and satisfactory financial supports. According to these results that awareness events should conduct often to be gained the aim of the sport and sports ethics to sportsman and athlete health, doping and sports ethics.

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