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# Investigation of Doping Usage Tendency and Knowledge Level in Adolescent Basketball Players

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#### **Abstract**

The aim of this study was to investigate the doping knowledge levels of basketball players in the development categories. 875 athletes from 14 to 18 years of age participated in the study voluntarily. Data were obtained by the application of the doping knowledge level questionnaire. The data were evaluated as percentage and frequency in the SPSS program. In the results of working; participants first stated that they heard the word "doping" from the media (41.6%). 92.8% of participants did not pass a doping control before and 93.1% did not use doping substance before. 94.4% of the athletes did not have any knowledge about doping side effects and 92.5% stated that they did not have enough knowledge about doping effect. In addition, 98.7% of participants consider doping a problem and 93.5% want to know about doping. In the light of these findings; It can be said that it would be useful to organize the seminars by coachs and club management about doping and its' side effcets for young basketball players to increasing the knowledge about the use of doping.

**Keywords:** Sport, basketball, doping, adolescent



#### Introduction

Basketball is a popular team game where you can find participants and spectators around the world. Since there are so many different factors affecting the success in the game, it is necessary that the athletes be entrusted according to the multi-directional development principle. Particularly sudden changes in direction, acceleration and bouncing activities are constant and high severity in the match, so the conditional characteristics of the athletes need to be good. Experts report that during the training periods, balanced nutrition can be achieved without the need for extra product reinforcement in order to maintain and increase performance. (Petroczi et al. 2007, McDowall 2007). It is called doping to increase the performance of the sportsman artificially. (Hughes 2015). However, athletes have been using artificial ways and methods for a long time to improve performance. Doping is a risk factor for diabetes (at risk individuals), hypertension, cardiovascular and liver disease, hypertension, abnormal growth of organs, accelerated osteoarthritis, increased aggression and mood swings, libido disorders, fetal damage in pregnancy (in women) and psychological dependence, Are associated with several sudden deaths. (Cardona and Mifsud 2014, Kohler et al. 2008, Lentillon-Kaestner et al. 2012). Apart from serious health threatening behaviors, it is an application that disrupts doping, sporting spirit, image and value. For this reason, the global fight against the doping struggle is given priority. The World Anti-Doping Agency (WADA) stated that basketball athletes are increasingly positive out of doping control and that the most doping athletes are found after cycling and weightlifting athletes in Olympic sports (www.fibaeurope.com).

Today, training information and training methods are developing day by day. The developed methods have increased the competition of the spore considerably. The successes achieved with media support are increasingly emphasized. Athletes are able to make money with success and can resort to unwanted methods to lose it. At the beginning of these is doping. However, knowing the damages about doping can give up the athletes to use doping. When it comes to studies of literary doping, it is usually done at the level of professional teams. This type of work at the development level in the basketball branch has not been done in Turkey. For this reason, the level of knowledge of basketball players at the development level constituted the problem of this study. For this reason, the aim of this study is to examine the doping knowledge of basketball players in the development categories.

#### Method

## **Participants**

Totally 875 basketball players between 14-18 age who were playing in development leauge and licensed in Turkey were participated in to the study voluntary.

## **Data collection**

The data in the study were obtained from the researcher by searching the literature and applying the questionnaire to determine the level of doping information formed by the expert opinion. The questionnaire consists of 22 questions. The questionnaire has 5 questions questioning demographic characteristics, 9 questioning questions about doping history, and 8 questions questioning the level of knowledge and tendencies about doping.



# **Ethical approval**

This study has ethical approval from Çanakkale Onsekiz Mart University Faculty of Medicine Human Research Ethics Committee with 28.05.2014 date and 2014-10 decision no.

## **Analysis**

SPSS used for analysis. Findings showed as frequency and percentage.

## **Findings**

**Table 1.** Demographic characteristics of the participants (n-%)

		n	%
Sexuality	Female	175	20,0
	Male	700	80,0
	Total	875	100,0
Education level	High school	452	51,7
	Middle school	423	48,3
	Total	875	100,0
Playing leauge	U16	424	48,5
	U18	451	51,5
	Total	875	100,0

Findings showing the demographic characteristics of the participants are shown in Table 1. According to this, according to the competition category, the athletes participating in the study had similar education levels (48.5% and 51.5% respectively) in the same category (51.7% and 48.7% respectively) Have been identified. However, when gender is taken into consideration, it is determined that male basketball athletes are included in the study in large proportion (80.0%). It can be said that the number of licensed athletes in the category of women is lower than that of male athletes.



**Tablo 2.** Doping history distribution of participants (n-%)

		n	%
Where did you hear the word Doping? From From I did	From media	364	41,6
	From coach	178	20,3
	From other player	251	28,7
	From friend	64	7,3
	I didn't hear	18	2,1
	Total	875	100,0
Have you over entered the dening	Yes	54	6,2
Have you ever entered the doping control?	No	821	93,8
control?	Total	875	100,0
Did you use a performance enhancing	Yes	60	6,9
Did you use a performance enhancing drug?	No	815	93,1
urug:	Total	875	100,0
What kind of drug did you use?	Protein powder	18	30,0
	Amino acid	14	23,3
	Creatine	13	21,6
	Glutamine	15	25,0
		60	100,0
	Before the every training	10	16,6
	After the every training	14	23,3
When did u use?	During the training	17	28,3
	At the preparetion season	19	31,6
	Total	60	100,0

Findings of participants' doping histories are shown in Table 2. Accordingly, 41.6% of the athletes participating in the study stated that they heard the word "doping" first through media channels such as television, newspaper, radio and 2.1% said they did not hear the word of doping yet. However, it is understood that most athletes participating in the study are aware of the word doping. 6.2% of the athletes had already undergone doping control, while others had not yet undergone a doping control. While 6.9% of participants had used performance enhancing drugs, the number of people who did not use them was found to be very high (93.1%). Among the participating athletes, a small proportion of athletes using performance enhancing drugs were found to be the most preferred type of drug (30.0%) as the type of drug used, and generally (31.6%) used such drugs during the preparation period.



**Tablo 3.** Doping knowledge of participants (n-%)

Table 5. Doping knowledge of participants	(11-70)		
	Yes a lot.	15	1,7
	18	2,1	
	Few	16	1,8
	No information	826	94,4
	Total	875	100,0
What kind of side effects appeared?	Acne	11	18,3
	Nothing	41	68,3
	Increasing Hair	8	13,3
	Total	60	100,0
	A lot	38	63,3
Did the drug improve your performance?	Modarete	22	36,7
	Few	0	0,0
	Total	18 16 826 875 11 41 8 60 38 60 38 22 0 60 15 860 875 864 11 875 66 809 875 818 57	100,0
Is doping necessary for success?	Yes	15	1,7
	No	860	98,3
	Total	875	100,0
	Yes	15 860 9 875 10 864 9 11	98,7
Is doping a problem?	No	11	1,3
	Total	18 16 826 875 11 41 8 60 38 60 38 22 0 60 15 860 875 864 11 875 66 809 875 818	100,0
Do you think your doning knowledge is	Yes	66	7,5
Do you think your doping knowledge is enough?	No	809	92,5
	Total	875	100,0
	Yes	818	93,5
Would you like to know about doping?	No	57	6,5
. 1 0	Total	875	100,0

Findings regarding participants' doping knowledge levels are shown in Table 4. According to this, most athletes (94.4%) did not have knowledge about doping side effects, however, it was determined that there was no side effect in general (68.3%) of athletes who used doping substance before. However, most of the athletes using doping (63.3%) stated that their sporty performances were greatly increased. In contrast, most athletes participating in the study (98.7%) believe that doping is not necessary to succeed and most athletes (98.7%) think it is a doping problem. Most of the athletes (92.5%) stated that they did not have enough knowledge about doping and most of these athletes (93.5%) wanted to participate in informative activities about doping.

#### **Results and Conclusion**

In this study, it was aimed to measure the doping knowledge levels of male and female athletes in the development categories of the Turkish Basketball Federation in Istanbul Local Infrastructure League 2013-2014 period. At the end of the study, most of the participants (41.6%) stated that they heard the word doping first from the media. In similar studies it was reported that this term was introduced to young sportsmen via media. (Gençtürk et al. 2009, Çetin et al. 2008, Öztürk 2009). This suggests that the media plays a significant role in informing the athletes about doping.



Most of the athletes participating in the study (93.8%) did not previously participate in a doping control. A similar finding is indicated in Öztürk's (2009) study, Gençtürk et al. (2009), the percentage of the athlete who entered the doping control was 72.4%. This is due to differences in the ages of the athletes participating in the work and in their branches. Only 6.9% of the athletes participating in the study had previously used doping material. In addition, most of the participants (92.5%) found their knowledge of doping insufficient. This shows that inadequate information reduces the percentage of doping users. In similar studies, it was reported that the percentage of doping use was low and the doping knowledge level of the participants was low (Baysalling 2000, Eröz 2007, Çetin et al. 2008, Çetinkaya et al. 2007, Öztürk 2009, Gençtürk et al.2009). On the other hand, Yildirim (2001) found that amateur athletes have a better level of knowledge about stimulants, diuretics and peptide hormones than professional athletes, although the knowledge levels of the groups are not sufficient level as a result of comparison of knowledge about doping groups. Anabolic steroids, beta-blockers and narcotic analgesics, the level of knowledge of professional athletes is at an advanced level.

While a low proportion of participants (6.9%) indicated that they previously used performance enhancers, they generally stated that they did not cause side effects, but increased their performance. However, most participants (98.3%) reported that doping was not a requirement for success and that most of them (98.7%) were a problem with doping. Similar findings have also been identified in the previous statements. (Alpak 2008, Öztürk 2009, Gençtürk et al. 2009). Studies reported that most of the knowledge of doping was achieved through coaches (Alpak 2008, Çetin et al. 2008, Bilgiç et al. 2001, Şenel et al. 2004), families (Sobal and Marquart 1993) and conditioners (Hasbay and Ersoy 2001). Similar the literature that recent study found that participants achieved the doping knowledge by coaches and other players.

According to findings it is possible to say that participaths has low level doping knowledge and they want to know more about doping. Despite the fact that the percentage of use of doping is low, it is considered useful to have knowledge about the doping and damages at the developmental period to prevent negative effect on proffesional sport period.

## **Conflict of Interest**

The authors have not declared any conflicts of interest.

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